
Library binding is one of the activities typically included in newly created preservation departments, but librarians continue to discover that transforming a traditional binding program into one that better meets preservation objectives requires considerable investment of time. This resource guide is intended to help libraries review their binding activities from a preservation perspective through the following: (1) suggesting a strategy for gaining expertise through reading and observation; (2) outlining a plan for evaluating the library's and the binder's practices and policies; (3) presenting a strategy for initiating change; and (4) identifying issues that merit attention and discussion. Thirty-six articles dealing with a binding program and relations with a binder are presented. A bibliography lists an additional 18 sources for further reading. (SLD)
Managing a Library Binding Program

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Preface

This is one of seven in a series of Preservation Planning Program (PPP) resource guides. Support for their preparation was provided by a grant from the National Endowment for the Humanities. The resource guides offer libraries comprehensive, easy-to-use information relating to the major components of a preservation program. The goal in each case is to construct a conceptual framework to facilitate preservation decisionmaking as it relates to a specific program area. ARL was fortunate to be able to draw on the extensive experience of a diverse group of preservation administrators to prepare these resources. Guides cover the following topics:

- Options for Replacing and Reformatting Deteriorated Materials
- Collections Conservation
- Commercial Library Binding
- Collections Maintenance and Improvement Program
- Disaster Preparedness
- Staff Training and User Awareness in Preservation Management
- Organizing Preservation Activities

Taken together, the guides serve as points of departure for a library’s assessment of current practices. From the rich and diverse preservation literature, materials have been selected that relate principles or standardized procedures and approaches. The intent is to provide normative information against which a library can measure its preservation efforts and enhance existing preservation activities or develop new ones. The resource guides build on the body of preservation literature that has been published over the last decade. Every effort has been made to reflect the state of knowledge as of mid-1992.

The resource guides were prepared primarily for use with the Preservation Planning Program Manual developed and tested by the Association of Research Libraries, with support from the National Endowment for the Humanities. However, they prove useful to all those involved in preservation work in academic and research libraries. The guides may be used individually or as a set.

Each resource guide is divided into four sections. The first presents an overview and defines the specific preservation program component. The second section guides the review of current practice, explores the developmental phases that can be expected as a preservation program component develops, and lists specific functions and activities. The third part brings together key articles, guidelines, standards, and excerpts from the published and unpublished sources. The last section contains a selected bibliography of additional readings and audiovisual materials that provide additional information on a specialized aspect of each topic.

As libraries continue efforts to plan and implement comprehensive preservation programs, it is hoped that the resource guides will help to identify means of development and change and contribute to institutional efforts to meet the preservation challenge.

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INTRODUCTION AND PROGRAM DESCRIPTION
Introduction

Cliches are few in the relatively new field of library and archives preservation. Ideas are still fresh off the drawing board, and most of the preservation programs that have been established in North American libraries have an air of experimentalism about them—even the more mature programs. A few notions have surfaced persistently since the 1970s, however, when early advocates such as Pamela Darling began urging libraries to initiate local and national preservation planning efforts. One is that since nearly all libraries with sizable circulating collections use commercial library binding services, and since library binding is a fundamental component of a comprehensive preservation program, libraries are therefore already engaged in preservation activities and need not feel overwhelmed by the challenge to do more. That assumption merits examination.

While it is true that library binding is one of the activities typically folded into newly created preservation departments, and is often the first unit targeted for examination when an institution begins to place more emphasis on care of the collections, libraries continue to discover that transforming a traditional binding program into one that better meets preservation objectives requires considerable investment of time. Time is needed to acquire an adequate level of technical expertise, to plan and implement change, to adjust and fine tune new policies and procedures, to assume greater involvement in technical decision making, and to manage an ongoing quality control program the concerns of which are broader and more complex than before.

This resource guide is intended to help libraries that have not yet conducted a review of their binding activities from a preservation perspective, or that are not yet satisfied with the degree to which their library binding programs reflect preservation concerns. The guide:

- suggests a strategy for gaining expertise through reading and observation;
- outlines a plan for evaluating both the library’s and the binder’s policies and practices;
- presents a strategy for initiating change; and
- identifies current issues that merit attention and discussion.

Conducting a Study

The first step in conducting a thorough review of a binding program is to create a study team. The team should include the administrator who has primary responsibility for the program (often the head of the preservation department, the serials department, or the technical services section in a smaller library). The objective is to ensure that when recommendations for action emerge from the study there is someone on the team who can either authorize their implementation directly, or who is in a position to secure authorization from senior administrators. The team should also include all staff for whom the processing of materials for library binding is a significant part of job responsibilities. Change is effected best when those who must play an active role in implementation both understand and support its rationale and objectives.
Gaining Expertise

Stepping Back for Historical Perspective. Library binding cannot be understood out of context. Before focusing on details, it is worthwhile to take a broad look at the industry—its development and the major milestones in its history. Three overviews have been reproduced in this guide: Tauber's "How the Library Binding Industry and Standards Developed," "Library Binding Institute Highlights and Sidelights of 50 Years," and Brian Mulhern's "50 Years of the Library Binding Institute." (Also see Parisi's "An Overview of Library Binding: Where We Are, How We Got Here, What We Do," Part One.) For those in whom this reading sparks an interest to know more, the various journals of the Library Binding Institute (LBI, the industry's trade association) chronicle the history of the industry across the years. (See The Library Binder, 1952 to 1971; The Library Scene, 1972 to 1981; and The New Library Scene, 1982 to present.)

Core Reference Works. There are three core reference works that serve as underpinnings for any additional reading and research. They are LBI's Library Binding Institute Standard for Library Binding, 8th edition, the American Library Association's Guide to the Library Binding Institute Standard for Library Binding, and LBI's Technically Speaking: Articles on Library Binding. (For full citations and ordering information, see the SOLINET Library Binding Bibliography reproduced here.) The LBI Standard is the most recent revision of "Uniform Methods for Library Binding." These specifications, published in Library Journal in 1923 (and reproduced here), were developed jointly by the American Library Association Committee on Bookbinding and the Library Group of the Employing Bookbinders of America (precursor to the LBI).

The LBI Standard and the ALA Guide are companion documents. The LBI Standard comprises technical specifications that help to ensure a consistent product across LBI-member binderies. The ALA Guide parallels the LBI Standard, explaining technical procedures, expanding upon spare description, and guiding decision making. The publications are meant to be read side by side, section by section. Both documents will be revisited as study progresses; and with the growth of knowledge through reading, visiting binderies, and examining library-bound volumes, they will make more sense and become useful working tools.

Technically Speaking is a compilation of articles written by Werner Rebsamen that appeared in The Library Scene and The New Library Scene between 1975 and 1984. The compendium is best read cover to cover, in small doses. It includes articles on library binding methods, materials, and testing; and, somewhat tangential to this discussion but nonetheless useful, on publishers' edition binding. Taken as a whole, Rebsamen's articles and those by other authors that have published in the LBI journals are a unique source of technical information about library binding.

As with all technical literature, an important caveat applies to the information reproduced or referred to in this resource guide. Knowledge changes over time, fixing written facts and opinions in the past. For example, in Matt Roberts's interesting discussion of oversewing, "Oversewing and the Problem of Book Preservation in the Research Library" (reproduced here), he lists several disadvantages of "perfect binding" (today referred to as "double-fan adhesive binding"). They include inferior strength and the difficulty of rebinding. The modern methods and high quality adhesives now used in the library binding industry yield very strong volumes that are easier to rebind than any other type.
Similarly, older literature often suggests that adhesive binding is faster and less expensive than oversewing. Performed as it is today, using new methods of spine preparation and slow-drying adhesives, double-fan adhesive binding varies little from oversewing in terms of the time it takes; and the cost per volume is usually about the same. In general, readers should regard the technical aspects of binding literature as they do computer hardware and software reviews. The older literature, which reveals valuable historical insights, may conflict entirely with the new, which reflects contemporary thinking and describes machinery and processes that have only recently entered the marketplace.

Additional Technical Reading. Among the most useful readings beyond the LBI Standard, ALA Guide, and Technically Speaking, are the many technical articles written by binders and librarians for The Library Binder, The Library Scene, and currently, The New Library Scene. Those that describe and distinguish among the various methods of leaf attachment (e.g., oversewing, sewing through the fold, double-fan adhesive binding) are important because the determination of which method to use, and under what circumstances, is a policy decision upon which many others hinge. Again, keeping in mind that terminology, technology, and opinion have changed fairly rapidly over the last decade, helpful articles include Walker's "Library Binding as a Conservation Measure" (cited in the SOLINET Library Binding Bibliography reproduced here), Merrill-Oldham's "Binding for Research Libraries," and Parisi's "Methods of Affixing Leaves: Options and Implications" (reproduced here). Also very useful are articles describing the materials used in library binding. Those such as Jones's "Report on the Manufacture of Book Cloth and Buckram" (reproduced here) supplement Rebsamen's writings on materials (see Technically Speaking). Product advertisements in journals and brochures can also be instructive (see, for example, the excerpt from the Davey Company advertisement reproduced here).

Visiting a Bindery. A first or repeat visit to a library bindery is an important complement to reading. Many library binding procedures involve machinery that is very difficult to describe. The workings of an oversewing machine or an automated rounder and backer, for example, are poorly conveyed in words. Written descriptions and illustrations make more sense after one has watched the equipment function at very close range. Merrill-Oldham advises in "Getting Educated: A Librarian's View," p. 6 (reproduced here), "Ask to have all sewing machines operated manually...so that you can see how the needles pass through pages." You will also find after a well-planned bindery tour that an inspection of library-bound books reveals more information than before about how they are bound, and whether the job has been done well. There are many references in the literature, for example, to oversewn books that are "bound too tightly." Trained eyes would see that the pages of all oversewn volumes are tightly clamped. Volumes differ because some have narrow margins and some wide; and some have flexible pages and others stiff.

A bindery tour conveys both general and specific information. Library binding remains a blend of manual and automated processes, and many people are surprised at the amount of handling and care that each volume requires. Seeing a bindery operate is the best evidence that per-volume costs are reasonable, and that there are limits to the degree of custom treatment that is possible within the bounds of the binder's regular price structure. While all binding processes are interesting to watch, there are several that deserve close attention because understanding them is critical to one's ability to make important policy decisions. The binder should know that you would like to come away from the tour with the following questions answered through discussion and close observation:
• How does an oversewing machine stitch through pages, how do the stitches lock, and how does one section of pages attach to the next?

• How does a National, Smyth, or Martini sewing machine stitch through the folds of pages, how do the stitches lock, and how is does one signature attach to the next?

• How are the folds of damaged signatures prepared for sewing through the fold? Are sewing holes sawn in, or pre-punched? How do these holes look after the volume is bound?

• When a volume is made up of two or more signatures that will be sewn through the fold, how are endpapers attached? Is each endpaper sewn on as it were a separate signature, or is it wrapped around an outermost signature of the volume, and the endpaper and signature sewn on as a single unit?

• How are the spines of volumes prepared prior to double-fan adhesive binding? Are they notched, sanded, or otherwise treated?

• How are the spines of volumes cleaned in preparation for recasing? Does the method appear to endanger the original sewing threads?

• How are new endpapers attached to volumes prior to recasing? Are they tipped on, whip stitched on, or sewn on through the fold? See Grauer's meeting report, "Recasing: A Discussion Between Librarians and Binders" (cited in the SOLINET Library Binding Bibliography reproduced here) for excellent illustrations of the various methods.

• What types of text blocks are rounded and backed prior to casing in?

• Are the spines of double-fan adhesive bindings lined once, or twice?

• Are the spines of thick, heavy, multiple-signature volumes lined once (with cloth) or twice (with cloth and then paper)?

• What volumes are rounded and backed, and what volumes are left flat-backed?

As will be discussed below, there are no "right" or "wrong" answers to many of these questions. In some cases, pivotal technical issues have not yet been resolved through adequate independent research and testing. Choosing among options is often a matter of judgment mingled with intuition and preference. Nonetheless, as the library binding industry moves into an active period of study and analysis, the key to tracking the issues that emerge and developing an informed opinion is to understand (really understand) what you have asked your binder to do, whether your instructions are being followed, and whether there are aspects of these instructions that you would like to change--and why.

Following a bindery tour you might want to view the videotape, Library Binding: A Collaborative Process, A Shared Responsibility (cited in the SOLINET Library Binding Bibliography reproduced here), and read Parisi's "An Overview of Library Binding: Where We Are, How We
Got Here, What We Do," the last in a two part series (cited in the "Selected Readings" below). Both provide a start-to-finish overview of bindery work flow and can help tie up loose ends.

Evaluating Existing Services

Developing a better understanding of the library binding industry--its products and services, capabilities and limitations--by reading and observing a bindery at work is only a first step in evaluating and improving a library's binding program. The next is to take a close look at the products and services that your library is currently purchasing. Reproduced here are two checklists for evaluating library binding that can be adopted as is or used as the basis for developing customized instructions for inspection.

The scope of an inspection program will depend on the time available, the extent to which quality control is already a part of weekly routines, and whether there are problems, created by either the library or the bindery, that need to be resolved. Quality control procedures necessitate taking a close look at how materials are bound. Are volumes being oversewn that you now know could be double-fan adhesive bound with better results? Is the library processing materials such as art books with images that run across two facing pages, without preparing the special instructions that such volumes require? As is mentioned in Appendix II of the ALA Guide, "Inspecting Library Bound Volumes" (reproduced here), close examination of bindery shipments is best done regularly. In addition to the factors listed in Appendix II, you may want to step up quality control for a while simply to gain more experience.

Communication with the Binder

Typically, with greater expertise comes more substantive communication between the library and the bindery--more questions, and sometimes, more complaints. The road to an enhanced working relationship need not be rocky, if both parties avoid taking offensive and defensive positions. Library binding is rarely as perfect as the checklists for examining individual volumes seem to suggest. Library staff will learn to distinguish serious from cosmetic, and occasional from pattern problems, but this takes a while. The binder has a role to play here, not in justifying mistakes or unsatisfactory work, but in explaining why things go wrong on occasion despite best efforts. It is the binder's job to provide the library with perspective in this regard. Electronic mail has made it easier for librarians to consult with colleagues in other libraries when they want to mull over problems and issues. Harris, in "Library Binder's Role in Preservation Education," p. 9 (see "Selected Readings" below), recommends the establishment of bindery "user's groups," which can be an effective educational forum.

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The bindery needs to keep in mind that library staff don't intend to be hypercritical when their quality control program picks up steam; rather, heightened awareness has simply stimulated interest and encouraged more proactive participation. Typically, as communication through visits and by telephone and electronic mail peaks, then ebbs as questions are answered and problems solved, mutual respect and congeniality are left in the wake.

Learning more about library binding usually results in the development of revised specifications, whether embodied in a verbal agreement or a formal contract. Appendix V of the ALA Guide (see SOLINET Library Binding Bibliography for citation) identifies important elements of a binding contract. Two sample contracts are reproduced here, more to suggest an approach to contract writing than to recommend specific procedures. A library's specifications will reflect
the nature and scope of its collections and how they are used. Whether the agreement between library and binder is formal or informal, it should be reviewed regularly. If the library maintains a high level of awareness and the bindery is dynamic, specifications are unlikely to remain static. Several articles in the literature discuss strategies for contract development and administration, and the challenges of managing a binding program where the low bid takes the contract. Two are reproduced here, as well as an excerpt from Robert's article, "The Library Binder," which describes the process of selecting a binder. Although his description of a "typical set of samples" (p. 756) is outdated, it is an interesting model that could be redeveloped.

The Need for Research: An Industry Examining its Foundations

In 1986, the questions facing the library binding industry and librarians responsible for library binding programs were limited and clear. Chief among them was the extent to which double-fan adhesive binding should, and could, replace oversewing as the product ideal. Two factors have influenced the new directions that the industry has taken. First, modern adhesives for double-fan adhesive binding, selected for their flexibility, strength, and durability, are very strong. Text blocks that: 1) have been properly milled to remove existing adhesives, cloth, and thread; 2) carefully jogged so that pages are in alignment; 3) prepared to accept adhesive by sanding, notching, or some other means; 4) uniformly fanned to accept adhesive; and 5) that have had a high quality adhesive carefully and thoroughly applied may not be quite as "strong" as oversewn volumes, but they are certainly strong enough to function effectively and to endure hard use. See, for example, the summary and conclusions section of Watson's Master's thesis, "A Performance Comparison of Oversewn, PVA Double Fanned, and Cleat-Laced Bindings" (cited in the "Selected Readings" below). For perspectives on techniques for producing a quality product see Bendror's article, "Can Oversewing Make a Comeback" and Curtis's article, "Testing of Leaf Attachment for Three Months of Spine Preparation for Double-Fan Adhesive Library Binding" (cited in the "Selected Readings" below).

Second, volumes that have been double-fan adhesive bound open perfectly when the grain of the paper runs parallel with the spine, and they open far better than oversewn volumes when the paper grain runs perpendicular to the spine. It is critical to understand the relationship between the working characteristics of books and the grain direction of paper. (See Rebsamen's "Paper Grain" in Technically Speaking, 90-91; and Frost's "The Effect of Grain Direction on Openability," reproduced here.)

The eighth edition of the LBI Standard recognized the importance of openability, and legitimized an already-developing trend within the industry to favor double-fan adhesive binding over oversewing except for very heavy, thick volumes; and volumes with stiff, cross-grained paper. Both of these circumstances place undesirable stress on adhesives, although it must be recognized that with time and the improvement of technique, binders and libraries have stretched the limits of double-fan adhesive binding with great success.

Today, however, many more questions are on the table--again, partly because of already-developing trends within the industry. Appendix III of the ALA Guide, "Non-Standard Library Binding" (see SOLINET Library Binding Bibliography for citation), hints at the new product development that is taking place outside the scope of the LBI Standard. Parisi's two-part article "New Directions in Library Binding--Life after Class A; Technical Considerations: 1986 LBI Standard" (cited in the "Selected Readings" below) identifies issues more directly. Research that has been done is incomplete and inconclusive (see, for example, Parisi's "A Performance
Evaluation of Rounded and Backed Books vs. Square Backed Books," cited in the "Selected Readings" below). Testing Guidelines for the LBI (reproduced here) reflect the organization's recent efforts to articulate a sound research policy.

In 1992 Committee ZZ was established by the National Information Standards Organization (NISO) to develop a new, joint LBI/NISO standard for library binding. Made up of binders, librarians, and materials manufacturers, the committee has established as its main goal the initiation of a highly focused research program to answer some of the questions that perplex--indeed wrack--the industry. They include issues that will be fairly simple to resolve, and others that are more intractable and may require extensive research. Even existing research methodologies as described in the American Library Association's Development of Performance Standards for Library Binding, Phases I and II (cited in "Selected Readings" below), and in the Rebsamen's articles on testing (see Technically Speaking), are under scrutiny. Research topics of concern to the committee are as follows:

- How do polyvinyl acetate adhesives (PVAs) compare to animal glue for use in constructing cases (the board and cloth that comprise a book cover)? What adhesives are best to use for cover-to-text attachment? Most binders now use PVA. Should it be specified in the standard?

- What backlining materials are best? Are two required on double-fan adhesive bound volumes as specified in the LBI Standard (i.e., a stretchable fabric and a sturdier cotton cloth)?

- Are the new non-woven substitutes for traditional pyroxylin-impregnated buckram acceptable for use in library binding?

- Can guidelines be established for selecting boards of appropriate thickness for text blocks of varying heights? Today, board selection varies from binder to binder, and the LBI Standard provides little guidance.

- Is there a material that is best suited for making inlays (i.e., the paper that lines the spine of the cloth case)?

- What categories of text blocks should be rounded and backed? Any?

- Can the construction of the hinges of library-bound volumes be improved in some way? Can they be made tighter? More flexible? More durable?

- What method of spine preparation best prepares a volume for double-fan adhesive binding?

- Some libraries request that very thick and heavy volumes be bound flush with the bottom of the case (that is, so that the text block sits securely on the shelf). Does this improve the durability and longevity of the volume?

- Some binders place pieces of cord at the head and tail of the inlay as the case is being constructed, to reinforce the head and tail of the spine. Others use a strong, flat
braid that extends across the hinges and onto the boards (see illustrations in the ALA
Guide, 33-34). Is one method better than the other?

- When folding cloth around the corners of boards to make a case, some binders make library corners and others make traditional corners (see illustrations in the ALA Guide, 34). Is there a significant difference between one style and the other?

- Adhesives manufacturers have assured binders that the effectiveness of internally plasticized PVA adhesives is enduring. Some polymer chemists agree. Are they right? (See Sparks's "Some Properties of Polymers and Their Relevance to Double-Fan Adhesive Binding" and "Polyvinyl Acetate Adhesives for Double-Fan Adhesive Binding" by Strauss and Ogden, both cited in the "Selected Readings" below.)

- Selection of thread for oversewing and sewing through the fold varies across the industry. Does it matter? Are the specifications cited in the LBI Standard valid?

If this list seems daunting it should, in terms of the time and work that will be required to provide a satisfactory response to the questions posed. Its implications, however, should not be misconstrued. In some cases binders have reached near-consensus, but do not have the requisite hard evidence to feel confident in changing the industry standard. In others (the manufacture of corners, for example), the issue probably has little to do with the overall durability of the bound volume. Some questions, however, are triggering genuine confusion in the industry and within the library community, and need to be resolved. Whether and when to round and back is one of them. There are three articles on rounding and backing versus flat backed binding reproduced here (by Larsen, Fairfield, and Parisi) that reveal sharp differences of opinion. All want to make the right manufacturing decisions and are anxious for research that will move opinion toward fact. Jacobsen, in "Chasing an Elusive Butterfly: The Library Binder as Lepidopterist" (reproduced here) makes that plain. The New Library Scene will track the progress of the NISO Committee that is seeking to catalyze the investigation of these matters.

Organizing a Binding Program

This resource guide concentrates on the technical aspects of library binding largely because librarians have years of experience organizing and managing administrative units, and the literature of management is highly evolved and well indexed. The main issues to be addressed, specific to organizing a binding program, are where to place the bindery preparation unit within the library organization, what decisions should be made and by whom as work flows toward and through the unit, and what materials should be left unbound if resources are inadequate and priorities must be set.

The chapter "Commercial Library Binding" (reproduced here) from Preservation Program Models: A Study Project and Report by Merrill-Oldham, Morrow, and Roosa, discusses the issue of placement. Several organizational patterns are modeled in that document (see pp. 32-35, reproduced here). Additional organizational models, and also work flow charts and other management information, appear in Lanier's "Binding Operations in ARL Libraries," Spec Kit 114 (see SOLINET Library Binding Bibliography for citation). The question, "To which senior administrator should the head of a preservation department report in an ARL Library?" is often answered, "To the Associate University Librarian with the greatest commitment to preservation..."
of the collections." An analogy can be drawn to management of binding preparation in smaller libraries. If there is no overriding logic to placement of the unit (as there is in a research library that has established a preservation department), the unit is best administered by the technical services manager most interested in binding. If this is not the librarian who manages serials processing, then the serials unit might gather issues for binding, prepare spine stamping instructions, and pass materials on to a unit able to focus on a full range of binding concerns.

Regarding decision making, there are some very basic policies that must be established outside the binding unit. The first has to do with artifactual value. What types of materials will be left as is, boxed, or conserved, rather than library bound, because the volumes have intrinsic value in addition to their informational value? These are decisions to be made by collection development librarians, and should be articulated clearly enough so that the binding preparation unit can identify materials that do not belong in the binding workflow. (See related information in the RLG Preservation Committee's "The Book as Object" and Merrill-Oldham's "The Modern Book as Artifact: A Brief Bibliography," reproduced here.)

Second, if there is an in-house repair or conservation unit, lines have to be drawn between materials that will be treated in-house and those that will be library bound. The decision should be made by the staff member in either the bindery preparation, repair, or conservation unit who has the best grasp of book structure, the scope of the in-house repair program, and the concept of artifactual value as articulated by collection development librarians. In a research library, this is often the collections conservator. See Appendix I of the ALA Guide, "Three Sample Decision Trees," and "University of Connecticut Libraries Preservation Decision Making, Paperbound Volumes [and Worn and Damaged Volumes]: Conservation or Commercial Binding?" (both reproduced here) for sample decision-making matrices.

When budgets are tight and not all materials that require library binding can be accommodated, difficult decisions must be made. Again, responsibility rests with those who know most about the collections, how they are used, and the consequences of inaction. Paperbacks are usually the first materials to be sent to the shelves without protection. Ideally when this happens in libraries with heavily circulating collections, paperbacks will be bound after first-time use rather than after they become damaged. Next to be delayed is the rebinding of monographs that are not in serious disrepair. While it is better to ignore volumes with minor damage than those that are falling apart, delaying binding often results in further deterioration and less satisfactory results once a volume is rebound. Fleischauer, in "Binding Decisions: Criteria and Process," Bailey, in "Selecting Titles for Binding," and Peacock, in "The Selection of Periodicals for Binding," offer interesting perspectives on selection of materials for binding. (See the "Selected Readings" below for full citations.)

Management of bindery operations in libraries has been complicated further by the introduction by binders of new products and services that complement binding and meet other preservation objectives. Juggling the budget and stretching limited resources are all part of the library's challenge when dealing with an innovative bindery. Phase boxes were among the first new products to become readily available. They provide a way for libraries and binders to acknowledge the brittle book problem more sensibly than in earlier years, when libraries sent brittle materials to binders and all crossed their fingers hoping for the best. Other types of boxes and other services are described in Appendix IV of the ALA Guide, "Supplementary Products and Services offered by Library Binders" (see SOLINET Library Binding Bibliography for citation).
Where new programs are concerned, the already-established business relationship between library and binder should not affect a library’s commitment to careful vendor selection and development of specifications. If the bindery offers conservation services, for example (and some have highly regarded conservators on staff), the library needs to determine whether those services meet high professional standards. The advice of consultants is sometimes very useful to libraries with little or no in-house conservation expertise, as is independent evaluation of completed work—at least at the outset.

Finally, there is the question of automating. Automation saves time and improves accuracy, especially if it involves development of databases that can be manipulated by the library for binding serials, and monographic sets and series, and if the binding instructions input by the library at the point of processing do not have to be rekeyed by the binder, which invites error despite the careful efforts of bindery staff. Choice of bindery preparation software is often dictated by the library’s choice of binder, but this situation needs to change. Librarians must step up efforts to persuade the vendors of major library systems to link those systems with one or more widely used bindery software packages. Essential elements for bindery software are currently being identified by the Working Group on Communication of Binding Information, of the Automation Vendor Information and Advisory Committee (an independently established group with representation from libraries and industry), with an eye toward the development of a NISO standard. Jacobsen's "Computer Communications and Binderies" and "Automation of Bindery Preparation," and Parisi’s "Bindery Software Interface: A Top Priority," reveal the binders’ interest in further automating communication links between libraries and binderies. (For full citations see the “Selected Readings” below.)

Conclusion

Not surprisingly, the more library staff and managers know about the library binding industry, the more interesting the management and implementation of bindery preparation programs becomes—and the better the results. It is hoped that the resources referred to and reproduced here will assist with the process of discovery.
SELECTED DOCUMENTS
Selected Documents


______. "Getting Educated: A Librarian's View." The New Library Scene 3 no. 3 (June 1984): 1, 6, 13.


Sewing through the fold remains the best method of book construction for the permanent collection. Appendix I gives diagrams showing the sew-through-the-fold method. Briefly, a large sheet of paper, printed on both sides, is folded to form a signature. The signatures are sewn through the fold to each other with a continuous thread, either in a simple chainstitch or onto tapes for added strength. This is the best method for attaching signatures together to form the textblock. End-sheets are attached to the sewn signatures to form the bookblock. Many end-sheets are 3-piece and may be reinforced with a cloth strip along the fold since the hinge is usually the weakest part of the binding. Glue is applied to the spine to help hold the sewn signatures in place. Rounding the spine by hammering the folds cuts down on the swelling caused by the sewing threads. Backing the book by hammering the outer folds over provides grooves for the boards and distributes the remaining swelling. The spine is then lined with a cloth strip which extends on either side to form one layer of the hinge. A strong, tightly-woven cloth is the best form of spine lining. Headbands or reinforcements at the head and tail add strength at particularly vulnerable parts of the book. Finally, a case is made of materials of appropriate size and weight and the bookblock is glued into it. This is called "casing-in." In a well-bound book the cover and textblock support each other.

SEWING THROUGH THE FOLD

Sewing through the fold can be done by hand or machine. It has the following advantages when strong materials are used:

1. The book opens easily and lies flat;
2. The sewing is strong, durable and long-lasting;
3. The process is repeatable and the book can be resewn and rebound; and
4. The book suffers no loss of margin and the folds remain intact.

Sewing through the fold can be costly, it is usually more expensive than other rebinding methods because of the extra hand-work involved, and thick paper or thick signatures may be difficult to sew through the fold by machine. Sewing through the fold is the best binding method and should be used whenever feasible.

BINDING INDIVIDUAL SHEETS

The remaining binding options are all methods of binding separate sheets as opposed to folded signatures. Adhesive binding is one method of binding sheets which can be accomplished several ways. Straight adhesive binding involves the application of adhesive only to the outside edges of the individual sheets. This produces a fairly weak binding. Flexbinding or double fan binding is a form of adhesive binding in which the spine edges of the sheets are fanned in one direction.
with glue applied and then in the other direction for a second application. The narrow line of glue between each sheet gives a stronger bond. The glue used in this process must be long-lasting, strong, flexible and non-destructive to the rest of the book. It is an inexpensive method of binding sheets into a volume that will open easily and lie fairly flat without much loss of margin, and it is acceptable for either pulpy or slightly brittle papers. Disadvantages include the trimming or grinding of the spine and thus the loss of folds if present. Adhesive binding is not always suitable for heavy or thick volumes as some adhesives become brittle and crack over time or at temperature extremes. While some of the adhesives currently being used are extremely strong, the permanence of any specific glue is known only through limited experience. Adhesive binding is the best option for binding single sheets in terms of the least margin used, and it has a very promising future.

Most commercial library bindings are either oversewn or cleat sewn. Oversewing is a binding method in which the spine of the book is ground or trimmed off leaving loose sheets. Small units of these loose sheets are sewn together and to each other through the inner margin at a right angle to the paper. Oversewing is the strongest sewing method, and binders present this strength as the great advantage of the process, but it also can be a real disadvantage. An oversewn book does not open easily or lie flat, and the pages have a tendency to snap shut. Folds are cut off to obtain individual sheets. This method uses at least 1/2" of the inner margin which can result in the loss of text or plate material or both, loss of the page proportions, and difficulty in opening and reading the text. An oversewn volume can be damaged when forced open for photocopying, and brittle paper will break along the sewing. While oversewing is strong, it is damaging and should be avoided where possible for binding books of long-term value.

Cleat sewing is a fast and cheap method of binding single sheets. Notches are cut out along the inner margin leaving cleats or stubs around which thread is wrapped before the spine is glued. The procedure is done by one machine, takes under a minute and is popular with commercial binders. Binders maintain that cleat sewing can be done with as little as 3/8" existing margin. One-eighth inch is cut out to form the cleats, and 1/8" remains for the inner margin of the book. Cleat sewing destroys the folds of the signatures and makes the book very difficult to repair or rebinding this method is inappropriate for smooth or brittle papers which tend to pop out or break off. Cleat sewing can be destructive and should be avoided on archival materials.

SPECIAL HANDLING

The preceding four methods of binding: sewing through the fold; adhesive binding; oversewing; and cleat sewing, are the methods most commonly used by commercial binders. Commercial binding is done on a mass production basis where neither the time nor the expertise required to single out volumes for special attention exists unless the library provides instructions. It is therefore important to specify categories of binding and of special handling in your binder's contract or letter of agreement. These categories may include the following:

**New Casing Only**

A new case only (also called recasing or "don't resew") is the best method of rebinding a book when the textblock and original sewing are intact. It is a very satisfactory solution for a book with a damaged cover.

**No Trim**

Binders regularly trim books to save time and produce "clean" edges, and unless "no trim" is specified the binder will usually trim off about 1/8" on all three outer edges of the book. Valuable margins are lost and text loss is possible, particularly where fold-ins and illustrations extend to the page edge. The option of "no trim" is time consuming for the binder because it necessitates special treatment by hand, and it may be an extra charge, but if more librarians requested "no trim" it could become standard binding practice.

**Binding Flush at Bottom**

Binding flush to the bottom of the case is a good option for heavy volumes that normally fall forward out of their cases and often tear the hinges. If the bookblock is cased in flush to the bottom of the case, it will rest on the shelf and will not be able to fall forward away from the case. A little dirt on the bottom edge of the book is better than a torn hinge.

**Acidfree Endsheets**

Acidfree endsheets could become standard if requested by more librarians, but they are not used by many binders. The cost difference is minimal.

**Sewing Through the Fold**

Sewing through the fold is desirable for special items and those which must open flat, such as music. It may be possible to negotiate a flat-rate binding fee, for instance, which includes sewing all periodicals issued in single signatures through the folds.

**CHOOSING A BINDING**

The choice of a binding method depends on the format, value and components of the book. First, it is important to consider the paper. Paper can be heavy or light, thick or thin, coated or uncoated and acidic or non-acidic. Heavier paper requires the use of stronger materials and binding methods. Some thick papers can only be sewn through the fold if the pages are to open flat. Coated paper is characteristically shiny and smooth. Adhesives do not adhere well to its surface and coated papers tend to pop-out of cleat-sewn or adhesive bindings. The decision to bind or rebind a book that has acidic paper
may be a poor one. Acidic paper is, or will become, brittle, and the pages may break off along the binding edge. Other options should be examined such as those mentioned earlier under "Decision making for brittle books."

Secondly, the existing margin width is an important element when considering binding options. As the margin width decreases, binding options also decrease. It is important to realize that a volume sent to a binder with instructions to 'bind' or 'rebind' will usually be bound on the basis of margin width with no regard for longevity or the usability of the volume. Therefore it is important that you ask for the specific binding treatment you want. Remember, any book that is sewn through the fold or has signatures can be resewn through the fold as long as the paper is good. As soon as the folds are cut off, the margin will decrease significantly during rebinding. If you want to save the book, save the folds.

Third, the original method of leaf attachment can help determine rebinding methods. If the original sewing is intact the book may need only a new case. If the textblock has signatures, you may want to give special instructions to the binder to sew through the fold. If it is in sheets, you may want to retain as much margin as possible with an adhesive flexbinding and no trimming. Librarians and library assistants who are responsible for binding should be able to choose the best method of physical care for a book that can be afforded. In the case of a valuable or rare item, it is better to do nothing if you cannot afford the best method. A valuable book bound in signatures should never be reduced to sheets.

Fourth, the probable future use of a book should also have a bearing on the binding decision. Any volume that is to be kept as a permanent part of a collection deserves the best possible binding. A binding that does not allow the book to be opened easily is of no service to your readers. For instance, reference works require bindings that will allow them to be opened easily and undergo heavy use. For a book that will only be a temporary holding, economy and short-term strength may be the determining factor in choosing the binding.

Fifth and last, you should be aware of certain elements when choosing the treatment. Fold-outs and plates extending into margins should be pointed out to the binder for careful handling or separated for special treatment. Items with loose plates, maps or other materials may be identified for making pockets or providing separate pamphlet or portfolio protection. Reference works or music which must open flat should be sewn through the fold if signatures are present or flex bound if not. Serial issues of different sizes should be bound in separate volumes in units no more than 2” in width since very thick, heavy volumes create an extra stress on the hinges and do not hold up well. Covers of aesthetic or historic value should be saved, while the information on other covers may be photocopied and either tipped or pasted into the book.

The combinations of binding needs, options and final decisions may seem endless, especially since no two commercial binders operate in precisely the same manner. Arrangements with your binder will therefore depend upon considerations that are beyond the scope of this general discussion. However, some specific guidelines for binding decisions may be helpful. Sewing through the fold is the most desirable method of binding. A book or serial that is sewn through the fold should be put into a new case if the sewing is intact or resewn through the fold. Serials in sheets may be adhesive bound, but the strength of oversewing may be necessary for heavy, track or coated stock. There are inexpensive methods for binding paperbacks already in sheets which provide protective coverings using plastic-covered hard casings. Paperbacks can be bound into a new case when signatures exist, adhesive bound if the book is in sheets, or over-sewn if the book is in sheets and heavy, or printed on coated stock. Volumes with brittle paper may not be rebindable, although flexbinding is possible for some borderline, low-use items. Consider other options such as reproduction or replacement or, if the book is valuable as an object, protection in the form of a wraparound.

Binding examinations are necessary to maintain control over the quality of the binding service you receive. You, as the customer, should set your requirements and standards and see that they are met. A Binding Evaluation form is included as Appendix J. It is a comprehensive checklist for the systematic examination of bindings. It can also serve as a record-of-service for different binders. Every shipment of bound books received from the binder should be spot checked asking the following questions:

1. Are the materials used in the binding, such as boards, of a suitable weight and size?
2. Has the case been constructed with a reinforced headcap?
3. Is the spine lining a strong fabric and does it extend under the endpapers covering the boards by at least 3/4" on the front and back of the book?
4. Is the spine evenly rounded and backed if bound in this way and do the boards fit snugly in the hinge grooves?
5. Are there bubbles on glued materials that would indicate possible weaknesses in the binding? It is important to check all the gluing including the covers, the pastedowns inside the covers, the spine lining and the head and tail for sloppy application.

Books can be well protected and made available to readers for the foreseeable future only when a suitable binding is chosen for each individual volume. Commercial binding can be a powerful conservation measure when the many elements that contribute to sound decisions are understood and carefully considered.
BINDING PROBLEMS TO WATCH OUT FOR

Mistakes, Cosmetic Problems, Structural Problems

by

Carol E. Eyler

(September 1988, revised December 1992)

This list includes some typical problems that may occur in library bindings. It is divided into three categories: mistakes, cosmetic problems, and structural problems. The library staff should be able to identify and distinguish among these and determine when and how to talk with the binder about them.

Mistakes are errors that the librarian and binder would readily agree upon. Some can and should be corrected either by the binder or at the library, others are not correctable, and still others may not warrant the time and expense of correction.

Cosmetic problems are ones that affect the appearance of a volume but not its functionality or durability. They may signal a need for more careful workmanship or quality checking at the bindery, but there is usually no need to correct these problems.

Structural problems are serious problems. They are ones that have damaged the text block or may damage it in the future, ones that have made the volume less durable than it should be, or ones that have made it more difficult to use than is necessary. Some structural problems can be corrected; many cannot.

Both cosmetic problems and structural problems can stem from honest mistakes. However, when they occur frequently or increase, the librarian and the binder should talk together to identify the source of the problem and find a solution.

MISTAKES

1. Spine lettering is incorrect.
2. Wrong text block and case joined.
3. Covering material is not the color or type specified.
4. Parts of text or periodical issues are out of order or mis-arranged.
5. Library’s instructions not followed regarding leaf attachment methods or other options (e.g., no trim, flush binding, covers in or out, placement of replacement pages).
6. Wrong ed. s of text block bound.
7. Text block cased in upside down.
COSMETIC PROBLEMS

1. Covering material, endpapers, or text block are dusty/dirty, or show excess adhesive, debris, or bindery markings under pastedowns.
2. Flaws in covering materials.
3. Text block nicked or burred by damaged guillotine blades or sloppy hand-trimming.
4. Turn-ins are uneven in width, crooked, or not turned in smoothly.
5. Covering material is "wrong" color or does not match previously-bound volumes.
6. Spine lining is crooked.
7. Spine lining extends beyond text block at head or tail.
8. Squares are unusually wide or narrow.
9. Edges of leaves stuck together by adhesive (usually seen at outer edges of text block, head and tail).
10. Spine lettering crooked, positioned improperly, or of a less than optimal size.
11. Endpapers torn due to excess adhesive on leaves.
12. Endpapers not smoothly adhered to boards.

STRUCTURAL PROBLEMS

1. Leaf attachment method is inappropriate for volume.
2. Sewing not done correctly or well (e.g., too few stitches, broken threads).
3. Adhesive not applied well on double-fan adhesive bound volumes—especially at head or tail; leaves may be loose as a result.
4. Spine of recased volume not cleaned adequately before application of new spine lining.
5. Spine lining is not smoothly and completely adhered.
6. First spine lining (stretchable) on double-fan adhesive volumes stops short of head and tail edges.
7. Spine lining extends onto front and back boards less than one inch.
8. Endpapers are not attached properly, or as agreed upon between library and binder, for the particular method of leaf attachment employed (e.g., on recases: tipped on, whip-stitched or stab-sewn, rather than sewn on through the fold).
9. Board thickness inadequate for weight or size of volume.
10. Text block cased-in crooked.
12. Joints not parallel, evenly wide and deep, and firmly impressed.
13. Text block not flush with bottom of case, if that option was specified.
14. Text along binding margin is invaded by adhesive, notching, or sewing.
15. Text, illustrations, or foldouts have been trimmed or caught in binding.
16. Text is obscured by adhesive which has flowed between pages.
17. Text is covered or pulled off by adhesive portion of binding slip.
18. Poor adhesion in joint/hinge area.
19. Spine of volume to be double-fan adhesive bound is not milled entirely free of original adhesive or folds.
20. Double-fan adhesive volume has only one spine lining.
21. Spines of large or heavy volumes not reinforced with an additional layer of material (either paper or extra spine lining cloth).

** Applies only to binding done in accordance with the LBI Standard (8th edition, 1986). In non-Standard binding (e.g. economy binding) this situation might not be a "problem."
STEPS IN IMPROVING THE BINDING PROGRAM

by

Carol E. Eyler

(September 1988, revised September 1989)

1. Educate yourself about library binding standards, methods, options, terminology, and research.

2. Assess the current quality of the binding your library is requesting and receiving.

3. Communicate with your binder about your plans to evaluate and perhaps change your binding requirements. Learn what the binder can and cannot offer. Communicate your interim and eventual decisions, and discuss what goes well and ill along the way.

4. Examine volumes to be bound and make decisions in light of new knowledge and information during this trial period.

5. Inspect bound volumes fully and thoroughly upon return from the bindery.

6. Visit the bindery for an educational tour, and meetings with bindery sales, customer service and plant operations personnel.

7. Sensitize binding staff, library administrators and others to preservation and the role library binding plays in preservation.

8. Plan for budgetary and staffing ramifications of changes in binding program.

9. Train/re-train staff to examine volumes, make decisions, evaluate the results.

10. Make, revise and document decisions about binding preferences, including decision criteria, blanket and default decisions, options, exceptions.

11. Implement revised decisions, after communicating them to the binder and re-training library staff.

12. Monitor the quality of decisions and the binding itself; modify decisions and procedures as needed.

13. Coordinate binding preparation and repair activities, to better prepare volumes for work at the bindery.
Flat Backing —
The Advantages to Library &
Bindery Alike!

By John R. Fairfield
Information Conservation, Inc.
Greensboro, NC

"Books were not rounded and backed until pasteboards began to supplant the use of wooden boards for the sides of books, but while this rounding of backs made a smooth-convex surface on which a title could be placed to advantage, it served to constrict the back and made for a less supple opening of the book."

BOOKBINDING: Its Background and
Technique by Edith Diehl, Volume I

"It is better for the back to be rather flat than too round. Anything approaching a half-circle either obstructs the opening or causes too great a movement in the back."

HOW TO JUDGE A BINDING
by Douglas Cockerell

First of all, let me state quite clearly that I think a book that is properly rounded and backed looks much, much better than most flat backed books. Every book, or magazine, that is very carefully shaped with a backing hammer has an aesthetic appeal that is not duplicated in any other way, and if our goal as a commercial library binder is to produce a binding that is rated by appearance, then there is little I can say here today in support of flat backing.

If, however, our goal is to produce a binding that meets the criteria for evaluating a successful library binding as stated in the Guide to the Library Binding Institute Standard for Library Binding, then there is a great deal of support for the product change.

Durability and openability are enhanced by flat back bindings whereas, rounding and backing may actually do more harm than good to the life of a binding. Let us examine why.

As we all know, there are four major types of page attachment: sewing through the sections, double-fan adhesive page at-

continued on page 18
tachment, recasing, and oversewing. There is a lot of evidence that supports flat backing for durability on any of the first three methods and recases are treated in the manner they were initially produced. Let's discuss each one.

We believe there is little support for rounding and backing a sew through fold volume. When the volume has been sewn through the individual sections or issues, openability is perfect. No treatment will create a volume that lays as flat or opens as naturally, and rounding and backing will not improve the openability in any way. That is very easily demonstrated. The question to ask is, does rounding and backing of a sew through fold volume create a more durable binding? Not likely.

A simple demonstration will show that sewing through the fold, or through the printed sections, present a hazard and potential damage to the text block. Today most of the books are printed on machine-made paper, frequently of inferior, clay-filled stock. The paper is often heavy and has been folded at least three times, often against the grain, making sections of sixteen pages or more. As a result, the stiff, thick sections can only be damaged by inserting them into a hydraulic rounding and backing machine. The result is a volume that is not more durable but is less durable because the score lines in the paper will be the first place for failure. Additionally, if the mashing of the sections into a shape we think of as rounding and backing goes too far, the threads will be pulled through the paper and sometimes through the sections. All in the name of improving openability and durability.

For those volumes that have been double-fan adhesive bound, much of the same reasoning applies. One of the major advantages of this method is openability and although an adhesive bound text block may not open quite as well as a sew through fold, it opens just fine. The openability will not be improved by rounding and backing, and again, the text block may actually be damaged. Remember that 50% or more of the items printed today are printed on cross grain paper. When the rounding and backing machine “does its thing” on these volumes, there is an evident crease or fold in the paper that is not good for the future of the book. It is visually apparent on most of the volumes any binder does in the rounding and backing machine. It is also a fact that rounding and backing stretches the back lining material too far, often tearing or at the least, pulling it beyond its limits. We have all looked for years for a material that has enough stretch to allow for rounding and backing and no one has been successful. Thus, we put an inferior product, a non-woven paper, on the spine and then covered it with a woven product after rounding and backing. The stretching of the adhesive is also very questionable. There are limits on any of the PVAs and unless rounding and backing is very, very slight, the adhesive is probably stretched beyond its limits and weakened. Thus, we have weakened the flannel and weakened the adhesive, and that does not lead to durability.

Oversewing was addressed in the Chaback Thesis. Those 1987 independent tests confirmed that durability, the strength of the volume in the joint area, is better on flat backs and openability is at least equal. There is no value to rounding and backing other than the visual acceptance and tradition.

These are all advantages for the treatment of the material and are supportable as conservationally sound decisions. What continued on page 25
OPEN FORUM, continued from page 18

about the cost to the binder? Is really a cost savings just to eliminate rounding and backing? Does the change in appearance of the volume and the reduced cost of rounding and backing make the change worthwhile? Why should we change a product that has served the industry so well? Because it is a better treatment and it is more affordable.

The change to flat backing is conservationally correct and will generate excellent cost savings for the bindery. It is not just the cost of rounding and backing that is involved, although that is significant amount over a year’s time. It is also the other related processes that are easier and faster when the flat back concept is accepted. We are all sensitive to the economic pressures facing our business’s and our customer’s budget. We must search for every possible method that will be more affordable, especially if the treatment is not only less damaging, but provides more durability and improved openness. This product, wide hinge flat backed, is worth further testing recognition as an acceptable product — by all library binders and for all libraries.

Guidelines for Authors

Please follow these procedures for submitting manuscripts to The New Library Scene.

1. Submit original, unpublished articles only. Do not submit manuscripts being considered for publication elsewhere.
2. Articles should be 1500 to 3000 words in length on subjects of interest to librarians.
3. Write in simple, readable style that is grammatically correct. Please remember the author is responsible for the accuracy of all statements in the article.
4. Manuscripts should be typed, double spaced on 8 1/2 x 11 inch non-erasable bond paper.
5. Be prepared to supply photographs or other camera-ready illustrations if applicable.
6. Be sure to keep a copy of your article for your files. Only manuscripts accompanied with return postage will be returned to the author.

BINDING THeses AVAILABLE


by Claudia Elizabeth Chaback

For over fifty years, library binders have utilized a standard oversewing endpaper. The new 1986 LBI Standard for Library Binding allows, on an experimental basis. a new “flexible, wide-hinge” endpaper, as recommended by advising librarians. It should be noted that this new endpaper construction may only be used with the customer’s permission. This binding thesis investigates performance characteristics between these two endpaper constructions in a very scientific manner. Ninety-six books were prepared and tested. Ms. Chaback’s thesis explains the function of these endpapers, analyzes, possible problems, and gives excellent, illustrated descriptions. Her experimental objectives were to test for openness, hinge strength, and possible hinge delamination. All results are reported on a 99% confidence level. 100 pages.

"A Performance Comparison of Oversewn, PVA Double Fanned, and Cleat-Laced Bindings"

by Caroline Watson Keens

Those who purchase and use library binding often wonder how the binding methods mentioned above compare in strength and performance. To study and analyze the three methods of leaf attachment. 54 books were bound and tested. The in-depth, 114 page report gives a description of oversewing, double-fan adhesive, and cleat-laced methods of binding. Various methods of testing were used. All data is carefully analyzed to give a comparison in strength, usability, aging characteristics, and openness.

"A Performance Evaluation of Rounded and Backed Books vs Square Backed Books"

by David Harlan Parisi

Should a book be rounded and backed or left square backed? It’s a timely argument. The only logical means to provide information concerning the effects of rounding and backing is to perform tests that will compare, scientifically, the performance between these two methods of binding. A total of 78 books were bound and tested in twelve variables. Two methods of binding were used (oversewing and PVA double fan adhesive). three different thicknesses, two different papers (coated and uncoated), and three different endpaper constructions. During the destructive testing in the tumble and UBT testing devices, visual observations were carefully recorded at progressive time intervals to determine the effects of rounding and backing versus square backed. Upon completion, the observations were summarized in order to record the effects rounding and backing has on the performance of a bound book. 75 pages.

Copies of these studies may be obtained by writing to the LBI office. The cost per copy is $50.00 in U.S. funds, which includes postage and handling. Proceeds from the sale of such studies will be used to support further research, testing, and analyses on library binding.
In early 1990 I wrote an article that was published in issue No. 2 of The Title Page under the heading "New Concepts in Library Binding—The Merits of the Flex Hinge Endpaper and Flat Backing." The information in that position paper addressed the two methods that set our company apart from much of the industry and was an attempt to detail for library and binder alike, the rationale and support for our decision to adopt both of those methods for library binding.

An important message in that article was the challenge to our industry to embark upon meaningful research and testing in each of these areas of controversy. Not much has been done during these past two years, but I'm pleased that it appears there will finally be formal analysis of these methods and formal testing of the products. A NISO (National Information Standards Organization) Standards Committee, of which I am one of the twelve members, is undertaking a project to revise and update the "Library Binding Institute Standard for Library Binding," and that will include testing of these two methods as well as several others. We have supported the testing for some time. It will take a lot of time and will require a great deal of effort, but we are confident that the end result will be worthwhile and will finally resolve most of the issues.

We have seen a growing number of librarians accept this product change, and we have observed a growing number of binders who are selling and producing the Flex Hinge endpaper and a flat backed product. I think it is fair to state that the Flex Hinge end paper is no longer controversial and is accepted by most as a product improvement, but the question of flat backing versus rounding and backing continues to be difficult for some. The purpose of this special edition of The Title Page is to review current information and current thinking that has led to many discussions and several tests over the past two or three years about flat backing. It is also to provide the reader with as much information about our support, and the support other binders have now expressed, for eliminating an unnecessary and potentially damaging process.

Why flat backing?

We all (librarians and binders) seem to agree that the major objectives of a library binding are (1) durability, i.e., strength, and (2) openability, i.e., ease of use. The Guide to the Library Binding Institute Standard for Library Binding (co-authored by Jan Merrill-Oldham and Paul Parisi and published in 1990) has an excellent preface, and I would like to quote from their text:

"All editions of the LBI Standard previous to 1986 were predicated on the prevailing opinion that the following steps invariably yield a superior binding: milling the spine of a volume to remove spine lining, glue, and thread; oversewing the resulting loose leaves together; trimming the fore edge, head, and tail of the sewn text block; rounding and backing the text block; and fitting it into a pyroxylin-impregnated, buckram-covered case with one-eighth inch-wide squares at the fore edge, head, and tail.

"Today, any one (or all) of the procedures cited above may be changed or eliminated, depending upon the binding situation at hand. This departure from tradition has occurred because our criteria for evaluating a successful binding have changed. Librarians are looking beyond sturdiness to user-friendly volumes that can be read and photocopied easily. They recognize that different volumes may require different treatments in order to achieve the combined qualities of durability and openability. As librarians' interest in and expectations of library binding become more complex, so too does library binding itself." [emphasis added]

Our criteria for producing a successful binding that will provide durability and openability leads us to conclude that flat back volumes are better for the user and better for the collection. It starts with the selection of the proper leaf attachment, and we work very hard to make certain the correct method has been chosen. Our "decision tree" dictates that we sew as many volumes through the section as possible, recase as many previously sewn volumes as practical, double fan adhesive bind as many volumes as
paper condition will allow, and finally oversewn only what
margins will allow and paper condition dictates. It is a
very important step in the process of correctly binding
any volume. The reason to flat back begins with this
process.

Rounding is a natural process created by the swelling of
paper, thread, or adhesive, and it is present on a number of
products as part of the leaf attachment. We do not
eliminate that natural rounding nor do we advocate
"flattening" the spine to achieve the flat back shape. We
do not see any need to add to, or detract from, that natural
shape the volume takes during the leaf attachment.

Rounding and backing in a commercial library bindery is
not a pleasant thing to watch. Contrary to what the
supporters of backing would have you believe, rounding
and backing is not a "hand" operation that can be done
with the care which each individual volume deserves. It
is a potentially destructive and brutal procedure per-
formed by placing a volume between the jaws of a
powerful hydraulic machine that very tightly clamps the
text block and holds it secure while an extremely strong
roller forces the spine to accept the shape that has been
traditional. It is a necessarily quick, cost effective opera-
tion that deals with uniformity, not individuality, and
anyone who watches one of these rounding and backing
machines operate will usually agree that the process is
potentially damaging to paper.

What about improving openability?
Let's examine each of the page attachments to see
whether rounding and backing will improve openability.
We know that a sew-thru-fold volume opens perfectly
and rounding occurs naturally during the sewing process
so backing will certainly not improve that characteristic.
In fact, it can easily be demonstrated that with many,
many sew-thru-fold volumes the forced backing will
damage the paper.

For volumes that have been double fan adhesive bound
the same situation occurs. Although openability is not as
perfect as it is with the sew-thru-fold, it opens just fine.
Rounding and backing a double fan volume will achieve
a couple of things, but we think they are both bad. One of
the advantages of adhesive binding is the superior
openability that occurs because of the flexibility of good
adhesives. Rounding and backing will stretch the adhe-
sive film beyond its limit, weaken the adhesive, and may
break the back lining material covering the spine. The
other negative about rounding and backing, especially
monographs, is that a great many items today are printed
cross-grain, and the damage to paper is very evident. It
shows up as wrinkles and creases along the gutter margin
of the text block.

Recase volumes have a natural round, may have been
backed when manufactured as an edition volume, have
good openability, and will not be improved by inserting
them into a rounding and backing machine. In fact, many
will have their spines broken by the machine and will
have to be rebound using new page attachment tech-
niques and sacrificing more inner margin. Machine round-
ing and backing is damaging to a recase monograph and
does not make good sense. Only a "hand" touch-up is
required to be sure the spines are shaped satisfactorily,
and that is exactly what we do.

That leaves the minority of volumes we do—the ones
oversewn. It has been accepted for some time that rounding
and backing of oversewn volumes was essential to
openability, but consider this fact. Backing must occur
between the sewing thread and the text block and when
that is done more margin is lost and openability is
reduced. If backing occurs behind the sewing thread, then
there would be no advantage to openability—the page
can only open as far as the sewing and, again, openability
is not improved. The only independent tests that have
been conducted were done at the Rochester Institute of
Technology in 1987, and they very clearly demonstrate
that flat backed, wide hinged, oversewn volumes have
superior openability to rounded and backed, traditional
hinge, oversewn volumes. Openability is not improved
by rounding and backing on this product or any of the
other text block consolidation methods.

What about strength and durability?
Part of the answer here has already been addressed
because the two objectives (openability and durability)
are interrelated, but let me review. Does rounding and
backing add strength and durability to a sew-thru-fold
volume? Absolutely not, and many binders have already
eliminated the practice on all volumes with this method
of leaf attachment. When the shape is forced on volumes
that have been sewn with this method, the threads are
often pulled through the paper and the binding is weak-
ened. The process of forcing the sections to be backed to
create a shoulder is damaging to the paper and creates a
weaker, not a stronger, binding. Material that has been
sewn through the section should not be rounded and
backed to improve either openability or durability.

As stated earlier, much of the material printed today is
printed cross-grain (across the grain of the paper), and
any attempt to force the spine into the rounded and backed
form will create the unsightly wrinkles and folds in the
gutter margin. This process certainly does not strengthen
the volume; it weakens it. The same holds true with spine
lining.

Binders have searched for years for a material that would
successfully allow a volume to be rounded and backed
without tearing or splitting the lining on the spine.
Nothing has worked, and in fact, the stronger, woven
cotton materials do not have enough stretch that will
allow proper backing. The solution is to line the books
after backing, but with adhesive volumes that is not
possible. The lining must be put on the square text block
during the double fan adhesive process, so in order to deal with this dilemma, binders who round and back adhesive bound volumes have accepted a weaker lining material and acknowledged that many will split. To solve this problem they cover the split, or try to add the additional strength that the weak, non-woven material does not provide, by adding a second lining of the correct woven material. Since it is difficult to defend such procedures, these are the type of issues that have led many to accept that rounding and backing is a negative when considering the strength and durability of volumes that are adhesive bound.

For oversewn volumes we need to examine the end result carefully. If we accept that openability is not improved, then we should have little trouble acknowledging that neither is durability improved by rounding and backing. Oversewing is almost indestructible, and the only thing threatening to the permanence of that process is to attempt to do exactly what rounding and backing does: stretch the threads, pull on the individual sections of paper, and force the volume into an unnatural shape. These acts lead to weakening, not strengthening, the individual volumes. Tests have proven that when the Flex Hinge end paper and wide joint are used, the attachment of the text block to the case is far superior with the flat back style as compared to the rounded and backed volumes.

**Why do some still round and back?**

If we accept that our two objectives, openability and durability, are not met by rounding and backing, then why do so many binders still sell it, fight hard against flat backing, and refuse to accept the obvious? As Topol sang in “Fiddler on the Roof”—“TRADITION!” Tradition, and a reluctance to accept change, have provided many of our fellow binders with their reason for continuing to perform a process that does not improve openability and actually damages many volumes. We have acknowledged, publicly and in print, that a flat backed volume does not have the aesthetic appeal for many people that a traditional rounded and backed volume has. We also acknowledge that there are certain volumes, especially those that are large in size and weight, where the flat back product tends to “sag” in the case, looks ugly, and seems to push the case out of shape. We are working on a solution to that problem and feel confident that it will be resolved. It is certainly not a reason to walk away from all of the benefits of flat backing.

Our industry continues to change, sometimes slowly, and sometimes painfully, but it must change. We are committed to producing a conservationally correct product that our customers can afford, and we are sure that when all of the facts are weighed, our commitment to a flat backed product is the correct one. We look forward to a confirmation of these facts by the formal tests to be conducted under the direction of the NISO Committee and the Library Binding Institute.
LIBRARY BINDING BIBLIOGRAPHY

(Revised March 1993)

This bibliography is the latest revision of one originally compiled by Lisa L. Fox (SOLINET) in April 1987, and revised several times by both Lisa L. Fox and Carol E. Eyler (Mercer University).

Books & Articles


Detailed guidelines for CUL staff on library binding, repair, replacement, microfilming, collection maintenance, and disaster preparedness. The section on library binding provides a useful model for outlining a library’s options and decision-making criteria.

From: Gifts & Exchange Dept., 104 Butler Library, 535 West 114th St., Columbia University, New York, NY 10027. $15.


"Out of the Question" is a regular CAN feature that addresses a wide range of preservation topics from a practical perspective. In this issue, DeCandido presents a brief overview of options to consider in developing binding specifications, using the LBI Standard as a model.


Discusses two of the most controversial issues in library binding today: (1) the flex-hinge, wide joint binding style, and 2) flat backing. The author is a strong and vocal advocate of both, but allows that there is a need "to study and test the various options so that we are certain we are giving each item the proper treatment." Read along with brochure by Fritz James (1986).

Reprints available from: Information Conservation, Inc., 6204 Corporate Park Drive, Brown Summit, NC 27214 (919) 375-1202.

Summary of a panel discussion on recasing sponsored by the ALA/PLMS Library Binding Discussion Group in June 1989. While informally written, it includes many useful and specific details about recasing, in-library bindery prep, and related matters. Good illustrations of different methods for attaching endpapers to volumes being recased.


Offers many specific suggestions on developing an effective library binding contract. Includes comments on responsibility of the preservation officer and the binder, and detailed discussion of contract provisions from different perspectives.

Honea, Ted. "Music ... a Binding Challenge." *New Library Scene* 4, no. 3 (June 1985): 1, 8-10.

Following a thorough exploration of the special problems of binding music, Honea sets forth the binding approaches he favors for single music scores and sets of parts.


Analyzes the different "cultures," philosophies, and constraints of librarians and binders, and suggests some ways to improve relationships between them.


Describes and illustrates the traditional endpaper used for oversewing and the new "Flex-hinge" endpaper, with pros and cons of each. Read along with article by John R. Fairfield (1990).

From: Library Binding Service, P.O.Box 1413, Des Moines, IA 50305 (800) 247-5323


Includes information from 18 research libraries on organization, operations, staffing, standards and guidelines, and automation.

From: ARL/OMS, 1527 New Hampshire Avenue NW, Washington, DC 20036. $10 members, $20 others; prepaid only.

Video presentation of bindery procedures, from receipt of materials through final inspection. Demonstrates leaf attachment methods, and other options, such as collation and trimming. Focus throughout is on complementary responsibilities and mutual goals of the bindery and library staff. Excellent staff training tool.


Essential reference. Commonly referred to as the "LBI Standard." Latest edition, extensively revised with the goal of making library binding more appropriate as a preservation strategy. Includes specifications for procedures and materials to be used in binding. The 8th edition was the first to be developed by a group of both binders and librarians, and as such, reflects a series of compromises. Describes options, but does not prescribe. A NISO committee of librarians and binders was formed in mid-1991 to develop a joint NISO-LBI standard based on the 8th edition; this process is likely to take several years.

From: Library Binding Institute, 7401 Metro Boulevard, Suite 325, Edina, MN 55439 (612) 835-4707. $5.00 pre-paid, postage included.


Outlines a rational decision-making strategy for choosing the appropriate leaf attachment method, and identifies advantages and limitations of each method. Suggests how decision-making can be shared between librarian and binder. The decision-making strategy and flow charts presented here were subsequently refined [see the Aug. 1985 and Feb. 1989 issues of New Library Scene] and inform the recommendations in the Guide to the LBI Standard (cited below).


Urges librarians to become better educated and more actively involved in library binding, and suggests ways of doing both.

An excellent model contract, especially for large academic libraries.

From: ARL/OMS, 1527 New Hampshire Avenue NW, Washington, DC 20036. $35, pre-paid only.


Essential reading. The "Librarian's Guide"--as this work is known--provides commentary on the *LBI Standard*. This well-illustrated guide provides a point-by-point discussion of procedures and specifications outlined by the *LBI Standard*, including prescriptive recommendations. Appendices include sample binding decision trees, a guide for inspecting library-bound volumes, discussion of non-Standard binding methods, and discussion of key elements of a binding agreement or contract.

From: ALA Books, 50 East Huron St., Chicago, IL 60611. $17.50.


Succinct text and outstanding illustrations offer an overview of modern book structures and problems which is critical for an understanding of library binding issues. See especially: "Book structure and book problems" (pp. 7-19), "Adhesive binding: history, causes of deterioration, ..." (pp. 35-39) and "Glossary" (pp. 53-60).

From: Illinois State Library, Preservation Office, Room 288, Centennial Building, Springfield, IL 62756. $5.00.


Outlines the responsibilities librarians must assume to use library binding services effectively as a preservation strategy, and suggests ways to strengthen the binding program.


Clear description of leaf attachment methods, and the benefits and disadvantages of each. Includes illustrations of each method discussed.

Describes the history, development, and operation of "ABLE," an automated system for control of binding information at both the library and the bindery. Includes a summary of benefits and drawbacks.


Argues convincingly that librarians and other staff have a responsibility to understand library binding and to take an active role in decision-making as a primary preservation method. Details options available, questions to ask, and many practical suggestions.

"Partnership ... the Key to the Nineties." *New Library Scene* 9, no. 2 (April 1990): 1, 5-6.

Describes the five-year evolution of one library binder's "librarian advisory group," the Customer Council of Heckman Bindery, from its "reactive beginning" to a more proactive stance.


Examines the results of a 1984 decision at Georgia State University to add paperback monographs to the collection unbound. Concludes that binding paperbacks only when warranted by use will save the GSU library over $10,000 per year. Authors encourage other libraries to replicate the study.


Volumes from the 1987 study (cited above) were re-evaluated, and the authors found "that the blanket policy of binding paperback books for this academic library is still not valid and is a waste of library resources." Interesting implications for smaller libraries.


Provides some background about librarians' concerns regarding binding quality. Discusses typical quality problems that occur, and the role of LBI in quality control through monitoring Certified Binders and through the Book Examination Service.
"New Cover Only ... How Much Can We Save?" New Library Scene 6, no. 1 (Feb. 1987): 15-19.

Good explanation of the complex issues involved in recasing volumes.

"Oversew or Adhesive Bind?" New Library Scene 5, no. 6 (Dec. 1986): 12-15.

Summary of a dialogue on oversewing between librarians and binders. Compares the techniques and results of oversewing and double-fan adhesive binding, with a brief mention of "perfect" binding. Some controversial conclusions, but useful for its history and description of double-fan adhesive binding.


Explains how paper grain affects book function and binding. An inset illustrates six simple tests for grain direction.


A compilation of articles published in the "Technically Speaking" feature of The Library Scene and The New Library Scene, from 1975 to 1989. Includes a total of fifty articles by Rebsamen, including the four cited above. Articles are written from a technical perspective and cover a wide range of topics relating to library binding and publishers' edition binding.

From: Library Binding Institute, 7401 Metro Boulevard, Suite 325, Edina, MN 55439 (612) 835-4707. $40.00 pre-paid, postage included.


An early critique of the damage caused by oversewing and recommendation of the consideration of other binding methods, including double-fan adhesive binding, which Roberts refers to as Perfect binding.


Outlines the criteria by which library binding may be considered a "conservation" or preservation treatment. Focuses on openability, retention of margins, and longevity.
PERIODICALS


Peerless source of timely information on preservation and conservation subjects, including hand bookbinding, library binding, educational programs, publications. Should be on every library preservationist's "must read" list.

From: Abbey Publications, 320 East Center, Provo, UT 84606 (801) 373-1598. $37/year to individuals, $45/year to institutions.

Conservation Administration News (CAN). Quarterly.

Focuses on preservation administration, and includes articles describing preservation programs and projects, personnel profiles, announcements and reports of workshops and conferences, and publication reviews. Widely read.

From: Editor, CAN, McFarlin Library, Univ. of Tulsa, 600 South College Ave., Tulsa, OK 74104 (918) 631-2864 $24/year.

The New Library Scene. Bimonthly.

Excellent source of information on library binding services, research and trends, with increasing emphasis on the relationship of binding to other preservation concerns. Articles written by binders, librarians, and others; most are of interest to librarians concerned with binding and preservation. Advertisements often quite informative. Essential reading.

From: Library Binding Institute, 7401 Metro Boulevard, Suite 325, Edina, MN 55439 (612) 835-4707. $18/year.

Serials Review. Quarterly.

Occasional articles on library binding, usually focusing on periodicals binding.

From: Pierian Press, P. O. Box 1808, Ann Arbor, MI 48106. $40/year to individuals; $65/year to institutions.

Technical Services Quarterly. Quarterly.

Several articles each year on library binding and other preservation topics.

From: Haworth Press, Inc., 10 Alice St., Binghamton, NY 13904. $36/year to individuals; $95/year to institutions.
METHODS OF LEAF ATTACHMENT USED IN LIBRARY BINDING:
A COMPARISON OF OPENABILITY

- Side-sewn volume
- Volume sewn through the fold
- Oversewn volume
- Double-fan adhesive bound volume
THE EFFECT OF GRAIN DIRECTION ON OPENABILITY

Paper Grain Runs Perpendicular to Bound Edge

Paper Grain Runs Parallel to Bound Edge

Gary Frost, 3/93
THE ABBEY NEWSLETTER
BOOKBINDING AND CONSERVATION

Special Supplement on
LIBRARY BINDING

THE PRECONFERENCE IN L.A.

What has been referred to as the "PLMS Binding Preconference" was officially called "Library Binding: Covering it All". It took place last June in Los Angeles, on two days immediately preceding the annual conference of the American Library Association. At this preconference, librarians and binders made notable progress in dealing with long-standing problems in the relationship between these two groups. The program was sponsored jointly by the Serials Section and the Preservation of Library Materials Section (PLMS) of ALA's Resources and Technical Services Division. All but one of the librarians who spoke were from college or university libraries. Seven representatives of the library binding industry gave papers. The Library Binding Institute (LBI) gave a reception for the librarians, and library binders contributed in several ways to support of the conference.

Besides panel discussions, a bindery tour and three workshops on types of materials and their binding needs, there were 10 presentations, among them:

- R. Gay Walker and Mel Kavin - Book Structures, Binding Procedures, and Terminology
- Stephen H. Roberts - Services Offered by Library Binders
- Barclay W. Ogden and Jan Merrill-Oldham - Selection, Specification, and Inspection of Library Binding
- Paul A. Parisi - Methods of Affixing Leaves: Options and Implications
- John F. Dean - Binding and Preserving Alternative Formats
- An Introduction to Library Binders
- Don Echertington - Conservation Services Offered by Library Binders

Approximately 85 persons participated in the preconference, including bindery managers (18%), library conservation specialists (23%), and preservation librarians (30%). The presentations were exceptionally well prepared and based on extensive experience and insight. For the practitioner of library preservation the preconference provided an educational and thought-provoking experience.

GUIDE TO DRAFTING OF CONTRACTS

Library binding is a problem for many libraries, not because it is too expensive, or too time-consuming (although there will always be a demand for cheaper, faster service), but because of quality control. Of course the librarian who decides what to send to the bindery must bear the blame if valuable books are sent that need more sophisticated attention. Similarly, the binder has to bear the blame if directions are not followed or margins or text are lost. But what can be done beforehand to prevent irreversible damage to books of permanent research value?

Contracts between the library and the binder should be the answer to this question, but often are not. Sometimes it seems that they prevent satisfactory service instead of mandating it. Both parties may have reason to be impatient with the results. A panel on library binding at the 1978 ALA meeting held that communication between librarians and binders is more difficult today than it was 35 years ago, partly because of a growing trend for purchasing departments rather than librarians to choose the binder, and to switch binders every year on the basis of price alone... (binders sometimes get a good laugh from specifications obviously drawn up by someone who was copying blindly from obsolete or inappropriate sources; but they may lose the bid all the same if they do not promise to meet the impossible and contradictory specifications that result.)

A good contract is not easy to draw up, but it is worth the trouble, especially if the materials to be bound have permanent research value. The librarian, not the purchasing agent, should determine the specifications, and the specifications should be reviewed yearly. The contract can be modeled on that of a larger library or library system, but should be made appropriate to the library using it. More librarians are getting involved in contract writing nowadays, partly as a result of the growing concern for conservation.

Input from library binders in this process—or at least from someone familiar with the capabilities of library binderies—is useful and important. Although it would be inappropriate for binders to take part in formulating the local contract on which they might later bid, their contributions to a general discussion can be quite valuable. If fuller and more efficient use can be made of the binder's capabilities, and if the contract can be enforced, the benefits would include cheaper and better service, better suited to the conservation needs of the collection.

*The problems are briefly described in "Library Binding Standards—What is the Problem????" by Pam Darling, in the Preservation Planning Program Resource Notebook, p. 530. The section entitled "Binding" (p. 524-564) reprint six excerpts, unpublished passages or articles on library binding, including Gay Walker's "Library Binding as a Conservation Measure," Southern Illinois's "Library Binding Specifications" for two recent years, and part of Matt Roberts's "The Library Binder," from Library Trends, April 1970. (This 626-page looseleaf notebook was announced in the July 1982 issue of this Newsletter and can be purchased for $20 from Office of Management Studies, Association of Research Libraries, 1527 New Hampshire Ave. NW, Washington, DC 20036.)

Preconference

One of the preoccupations of the preconference was the matter of options for "affixing leaves." Increasingly, foldless publishing and small-margin publishing are limiting use of the options of through-the-fold sewing and oversewing. Oversewing is also now recognized to be damaging for the rebinding of weak text papers and also to interfere with the increasingly common practice of photocopying. Most of the preservation librarians agreed that oversewing should be used as a technique of last resort: if folds were present, the book should be seen through the fold; if margins were narrow, adhesive binding was indicated; if the old sewing was good, it should be saved. Library binders at the preconference realized that a move away from the oversewing option is called for, although the 1981 LBI Standard for Library Binding specifies only oversewing and sidesewing. (Sewing through the fold and adhesive binding are classed as optional methods and described in an appendix.)

The importance of patterns of use as a starting point for rebinding specification was also explained. Problems arising from a disregard of usage were described. For example, conventional Class "A" serials rebinding can only occur after the initial period of greatest use and loss risk, while the rebinding expense is unjustified by the subsequent period of light use. Suggested alternatives to conventional rebinding included initial protective enclosures, add-on or storage binding, or no subsequent binding at all.

Patterns of use could be better determined by recording of pre-treatment circulations. Such record keeping could possibly by integrated into automated binding preparation records managed by library binders as a part of the rebinding service. With monographs, certain triggers, such as three circulations, could initiate the rebinding process. The approach which bases specification of rebinding on patterns of use conflicts with the present industry recommendations for rebinding that are based on the book's physical characteristics, such as text thickness or margin dimension. However, usage consideration is compelling, since different patterns of use have observably different effects on condition of the collection. Moreover, expensive Class "A" binding may not be required for lightly used collections.

Various summaries concluded the preconference. Both parties, the preservation librarians and the library binders, are concerned with the future and the prosperity of the library binding industry. But increased librarian/binder communication is required to assure that the industry's future is based on the provision of needed, non-destructive and effective products. Binders complain that most librarians don't care about the type or quality of products provided. However, the librarian specifically assigned to preservation responsibilities is expected to become informed and responsive. Such preservation librarians and their library binders will require clear and continuous channels of communication as the real preservation needs of the collections are discovered and better provided for.

(Postscript: A "Library Binding Task Force" under Steve Roberts of ICI and Paul Patrini of Acme Bookbinding is considering ways to prepare an instructional AV packet and perhaps "take it on the road" in a series of workshops, and a bindery preparation handbook that will cover much of the same ground covered in the preconference is being written by a group of librarians, independently.)

Contract Guide

After considerable persuasion, a representative of a library bindery has agreed to break through the communication barrier and say what he thinks librarians need to know about bids, contracts and specifications. His contribution is in the left-hand column. In the right-hand column are the comments of a preservation librarian experienced in contracting for library binding services. Comments of readers are warmly invited, either for publication or for private, anonymous feedback to the two parties in this dialog.

(Binder) | (Librarian)
---|---

1. **Expensive.** Librarians and administrative personnel spend an excessive amount of time and paperwork annually preparing to go out on bid. Bids have to be prepared well in advance of the renewal date, and have to be updated frequently.

   The time-consuming part of preparing a bid is the reworking of the binding contract so that it reflects current service needs and up-to-date technologies. This revision is not only expensive...it's essential.

2. **Inappropriate to the selection of a service organization.** Any experienced librarian can attest that binding service consists of multiple deliveries over time, that communication to and response from the supplier are invariably required, and that treating binding service like a physical commodity by bid buying typically leads to the lowest initial price with the highest complete cost.

   Not necessarily. Many service aspects of a contract are quantifiable (e.g., turnaround time for regular service and monetary penalties for late deliveries) and others can be spelled out precisely (e.g., procedures to be followed when an item is lost or damaged beyond repair at the bindery, and the nature of the computerized services to be made available).

   Where public funds are being spent through competitive bid buying, in the long run it is virtually impossible to exclude the unqualified binder.

   Not true. If the technical aspects of a contract are as clear, detailed, and demanding as good manufacturers' standards (and they should be), an unqualified binder won't be able to compete. For example, if acid-free paper is specified (which lines the spine of the case), or if end sheets for a volume to be newly cased only (not resewn) must be sewn-on through the fold rather than stab-sewn-on--and the bindery can't supply the specified material, or can't execute the work properly, it cannot meet the terms of the contract and is not a qualified bidder. It is extremely important to have binders submit samples of all binding styles specified in the contract, so that these can be inspected for compliance with specifications. Sending the binder a trial shipment can provide even more useful evidence of compliance or non-compliance.

It is very easy to underestimate the handling of the investment in poor client service, and extra administrative costs through unanswered correspondence and telephone calls. Where initial price is the major factor when bidding on binding, the unqualified organization can very often be the one selected.
3. Not always required by state law. Most state laws allow for negotiated purchase of services (as in the case of binding). In addition, some organizations have discovered that what was thought to be a state law requiring bidding actually was only a regulation from the purchasing office. Check your law.

4. Mandatory in some cases. If you are required to solicit bids, specify service requirements. Any vendor unable to meet the requirements set forth in your invitation to bid can be disqualified.

The contract should—or may—require that the binder:

1. Assign one individual to be responsible for the library account. This individual must have the authority to act in the library's behalf whenever necessary.

2. Have a computerized system for producing slips for serials binding, and have operated it successfully for more than two years. The binding slips should be produced in at least three parts and include the following features:
   a) Title
   b) Call number
   c) Imprint
   d) Panel lines
   e) Volume number, month, year
   f) Color of cloth
   g) Color of print
   h) Library name
   i) Computer title number that can be used on a blank slip, if necessary
   j) Style of binding
   k) Special collation information for styles requiring this work
   l) ISSN or Library Control Number box, to be used as desired by the library
   m) Frequency of binding, indicated for one year duration
   n) Special instructions box with ability to have permanent special instructions preprinted
   o) Collation box for Class A work

3. Acknowledge all complaints within three working days of receipt.

4. Provide the library with a printout of materials bound each month, if desired.

5. Indicate on their invoice when a volume is behind in schedule.

6. Be willing to provide computerized information in readable form (e.g., title list, shipment sent, etc.)

7. Be willing to accept collect telephone calls or have an 800 number.

8. Have representatives who visit periodically and who are available on request.

9. Provide an annual printout which details all titles on file in the data base. This printout will be in alphabetical order by title and will, in effect, become a holdings list of titles bound, with binding information for each title.

10. Be available to provide "in-service training" to librarians and staff members connected with the binding. Such meetings should focus on helping librarians better understand the problems connected with handling all aspects of collection maintenance.

11. Be willing to provide a list of three accounts over $25,000 or on contract, and a person to contact for service verification at each. (Accounts under $20,000 or $25,000 may not be cost-effective.)

12. Be an equal opportunity employer and maintain an active affirmative action program, and should have a program to employ veterans and the handicapped.

13. Be able to meet minimum standards for library binding, as published by the Library Binding Institute in 1981.

This is interesting, and worth investigating. Unfortunately, purchasing office regulations may be as difficult to get around as state laws.

Although the role of the computer is rapidly expanding in binderies, libraries are likely to discover that the bugs haven't been worked out of all systems yet. Libraries may need to apply the term "operated successfully" with some generosity.

This conflicts with the statement in paragraph 2 (above), that it is virtually impossible to exclude the unqualified binder.

This seems an unreasonable burden for the binder to bear. Under some circumstances collect calls might be appropriate (e.g., when the binder has repeatedly failed to correct a problem)—but in general, judicious use of the phone by both parties probably makes for better business.

Can we expect the binder to understand aspects of collection maintenance that are not related to commercial library binding?

Yes, but the librarian must understand that this minimum standard stresses one type of leaf attachment—oversewing—which is very often not the most desirable way to attach pages together; and that not all aspects of the standard are necessarily acceptable (e.g., the library may want the spine lining of a volume to extend more than 3/4" onto the inside front and back boards). This is to say the librarian should read the LBI Standard carefully and revise it if necessary, so that it reflects treatments appropriate for the collections to be bound.
14. Supply all material necessary to cycle materials to and from the bindery.

15. Pick up and deliver in bindery trucks, except for rush work.

16. Insure each shipment for a minimum of $10,000; or for a greater amount if library specifies.

17. Correct errors made by the binder, at the bindery's expense.

18. Not subcontract binding work unless library agrees beforehand.

Specific contract information must:

1. Specify pickup and delivery points and whether they differ.

2. Furnish estimated numbers of volumes of all styles to be bound during the contract period.

3. Specify the period of the contract, with options to extend, if agreeable to both parties. Prices may be negotiated at the time of extension.

Binders claiming to do archival quality work must:

1. Use acid-free and buffered endpapers; provide custom-made acid-free boxes.

2. Have facilities to do a variety of handsew styles.

3. Sew through the fold by both machine and hand.

4. Be qualified to make a determination of the proper method of attaching leaves.

Suggested criteria for choice of binder, other than low bid, could be combined on a point system with the following requirements:

1. Experience in providing expert binding services: ___ points.

2. Computer binding and accountability systems: ___ points.

3. Cost of binding as given in contract: ___ points.

4. Experience in binding and handling brittle material and unusual requirements: ___ points.

5. Similar accounts previously or currently binding for: ___ points.

Yes, and within a stated period of time. Some errors, however, especially those involving treatment of the text block, cannot be corrected by the binder without exacerbating the problem. The contract should address the situation wherein damage to an item is irreversible, or can be reversed only by a trained conservator.

All paper (not just endsheet paper) used by an "archivally oriented" library binder should be acid-free and buffered.

All binders, not just those claiming to do archival quality work, should be qualified to choose the proper method of leaf attachment. Perhaps it could be said that the "archival" binder deemphasizes oversewing, relies on less damaging methods of leaf attachment (adhesive binding, sewing through the fold), and retains original sewing whenever possible.

A binder doing "archival quality" work must employ one or more persons who are skilled at making archival paper repairs using Japanese paper and a starch adhesive of high quality. All non-archival paper repairs should be made using an acid-free paper-based pressure sensitive tape, rather than a plastic-based tape.

A better approach might be to write a contract spelling out requirements in terms that are measurable and observable, so that it can be clearly proved to purchasing agents that a binder is, or is not, qualified. By inspecting a bindery, evaluating a sample shipment (one which includes a high percentage of problem materials), and asking questions of other libraries with which the binder does business, it should be possible to determine whether that binder can provide the requisite service. If there is more than one bidder who unquestionably fits the bill, it's time to look at prices.

Use of a point system can be problematic. For instance, if a binder is not set up to handle high volume adhesive binding, and does not have an adequate number of staff members skilled at properly cleaning the spines of books that are to have original sewing retained, no number of points in other areas should be able to tip the balance in favor of this binder's doing business with a research library.
The PLMS (Preservation of Library Materials Section) Library Binding Discussion Group met at the ALA Annual Meeting, July 1988, in New Orleans, Louisiana, for the fourth time since its creation. Following a number of brief reports, the major portion of the program dealt with the issue of bidding library binding contracts.

Members of the panel addressing the issue were two librarians: Ann Swartzell, The New York State Library and Wes Boomgaarden, Ohio State University, and two binders: Bob Coyle, Joseph Ruzicka South and Paul Parisi, Acme Bookbinding Co., Inc.

It was clear from the onset that the pros and cons of contracts affected both librarians and binders, though often their concerns were different. The following is drawn from the speakers' presentations as well as audience participation.

One of the issues addressed was purchasing departments and their effect on bids. Some felt the real challenge of bids is with purchasing. Though they (purchasing agents) may talk about the best possible price, they are most concerned with saving money and providing efficiency for the institution. So, how do you reach purchasing agents? Some suggestions for librarians were:

1. Librarians must educate purchasing agents. Convince them to read the bids the way they should be read.
2. Show them hidden costs. Make sure they understand costs of stamping the spines, pockets, leaf attachment charges, and other special handling. Define turnaround time.
3. Stress the managerial importance of automated systems in efficiency of operations.
4. Do informal teach-ins. Show purchasing what the language of binding is, what you and the binders are talking about. Even a short course in book structure is a good idea.
5. Urge them to agree to maximum time on contract periods. Ideally a minimum of two years with additional years possible.

Librarians agree that many elements of a contract's specs cannot be easily measured, especially under the heading of workmanship. Certainly, using material in the 8th Edition of the Library Binding Institute Standard for Library Binding is helpful, but politics still plays a big role in the binding budget. What you thought looked good on paper may not become a reality.

Among the problems/solutions brought out during group discussion was to clarify in the contract what is an error and/or poor judgment on the part of the binder. All agreed this would be a difficult task. Another suggestion was to establish percentage guidelines of some sort for tallying the errors.

On the binder side of the issue, one panel member told the group that binders are businessmen, working for profit. Short term relationships (created by the bid system) made it hard to build trust, aside from the expense of building those limited relationships. He said binding was not like buying pencils or paper clips, but rather it's a very individual process. He felt bidding put unfair pressure on the binder. Binders need an expanding marketplace. It's a costly process to explore new technology or create new plant layouts. Employees need a fair salary, to help instill pride, to ultimately get a quality product. If you are looking for quality, price, and service, under the bid system, you can generally count on only two of them.

Another binder gave a practical view of the many contracts he's reviewed in the last few months. His comments were as follows:
1. The cost of bid and performance bonds has risen considerably in the past few years. This is particularly true for multi-year contracts. This cost is passed through in the bid.
2. Multiple year fixed price contracts are useful to the binder. Provisions should be made for a mutually agreeable increase at annual renewals.
3. Most bids appear to be awarded by low price ignoring the specifications for technical services and products.
4. Many contracts penalize binders for non-performance. A fine can be levied for a late shipment or even just one volume. However, the library and the institution almost never pay interest on invoices overdue, some for several months.
5. Some contracts ask for information of a confidential nature. This includes plant and financial information.
6. Bids are varied and often do not contain valid requirements. However, to submit the bid there must be a response to them.
7. Some bids grossly overstate the quantities of volumes to be bound. This makes the response to the bid at a lower price than it should be. Also, if the bid is won, there must be planning, possibly hiring of people based on the numbers bid on.
8. Some bids state that the bid can be awarded all, or in part. This is not fair to the binder who bids on an overall average price.
9. Cases are documented where a vendor was removed from a contract and then allowed to bid again as soon as the contract was up for renewal.
10. Specifications in some contracts try to dictate the way a company does normal invoicing by specifying the way they will be presented.
11. At times, the delay between the bid opening and the award may be several months.
12. After all of the work required to present a technical proposal, the purchasing agent awards it on low price alone.

We barely scratched the surface of the issue of bidding library binding. It was interesting to hear both sides from the panel, and the audience as well. Judging from comments following the session, I suspect we will address it again at a future date.

There was an excellent Special Supplement on Library Binding in the February 1984 issue of The Abbey Newsletter (Vol. 8 No. 1 Pt. 2) It included a Guide to Drafting of Contracts and offered a dialog between a preservation librarian and a binder.
Chasing an Elusive Butterfly:
The Library Binder as Lepidopterist
by Bruce F. Jacobsen
Vice President, Bridgeport National Bindery, Inc.

We live in an age of collectibles. Some people collect antiques. Where I live in New England, there seems to be an antique shop on every corner. I have spent several enjoyable afternoons poking through the remains of past civilizations. Other people collect coins. They search through their pocket change for those treasures that may have slipped past others, and attempt to fill in the holes in their collections through purchases at coin shops. Still others collect stamps. They haunt the service counters of the local post office, waiting for the latest issues to arrive. They, too, have their own shops which specialize in helping them add to their collections. My youngest son collects baseball cards. He faithfully buys the "wax packs" which contain both cards and gum. When we travel, he is constantly on the lookout for one of the mushrooming number of shops specializing in baseball cards. In his searches, he hopes to find that one "star" whose card has been overlooked by the other collectors who frequent the shops.

These collectors, in all their fervor, do not compare to the collectors of butterflies. Lepidopterists have been known to endure safaris through the African wild, trips down piranha-infested streams in the Amazon basin, and climbs up steep mountain peaks, all in search of that one specimen that will add to their collection.

"... simply meeting a customer's expectations is not enough to ensure success."

Once they have reached the correct geographical location, their task has just begun. Because butterflies are anything but easy to snare. They flit, they swoop, they change direction as they fly. They land in locations that are inaccessible. They rise to dizzying heights, only to dive to within inches of the ground. Yet the lepidopterist perseveres, chasing the prey over difficult terrain, and more often than not, coming away with the prize. This single-minded devotion to attaining a goal, is what is needed by library binders. It is only by listening to customers and satisfying their desires that binders will be able to capture the "elusive butterfly" of customer satisfaction.

In today's fast-paced society, customer expectations about goods and services are constantly changing. Libraries, as the customers of binders, are no different from any other customers of any other industry. In every industry, there are certain minimum requirements to which a company's products and services must conform if that company is to be successful. These requirements are not the end-product by which quality and customer satisfaction are to gauged. They are the ante to join the game. In library binding, the requirements would seem to be the following: well-crafted binding, timely delivery, reasonable pricing, and ethical practices.

All materials that are bound should conform to the specifications of the library that sent them. Lacking any...
specific directions, they should at least conform to the specifications of the LBI Standard for Library Binding. To do less is to invite customer dissatisfaction.

The most requested volumes, the best reference tools, and the books that are needed for a professor’s reserve list all seem to find their way to the bindery just as they are needed most. It is essential for libraries to know when their materials are scheduled to return from the bindery, and to have confidence that they will reappear when scheduled. Binderies should be able to provide consistent turn-around times for their customers, and to deliver complete shipments. It never fails that the one volume that is most needed by the library is the one which has not been returned. Continued failure in timely delivery also leads to customer dissatisfaction.

"Thus binders should perceive their role differently... They are partners with libraries in the preservation of printed matter."

Pricing should be neither too high nor too low. Prices that are high restrict the ability of the library to process enough of its materials. Libraries in many cases are caught in a vise of declining budgets and shrinking staffs. They need to process as many volumes as possible for the dollars available to them. On the other hand, prices that are too low imply that the bindery is cutting corners on either materials or binding procedures. The resulting lower quality binding may not stand up to the use it will receive. Pricing that is either too high or too low may give the library a reason to be dissatisfied.

Promises that cannot be kept should not be made. If a delivery promise is made, the shipment should be delivered on time. If a particular binding method has been promised, it should be provided. If a guarantee is made, it should be fulfilled. Invoices should be designed to clearly and accurately reflect to the customer what binding services have been provided. They should not confuse the customer. If ethical business practices are not followed, the customer will be dissatisfied.

Meeting these requirements only helps a bindery to survive. In today’s business climate, however, simply meeting a customer’s expectations is not enough to ensure success. To be successful you must exceed the expectations of your customers, and deliver to them more than they expect. This requires some fairly radical thinking on the part of library binders. The debate between binders about bookbinding methods, while it is necessary, must not be allowed to take the place of listening to the desires of the customers. No matter what methods we devise, they are not very good or valuable unless someone is willing to pay money for us to produce books for them. It is the customer who defines what we must produce, and how we must produce it. And that is only right. In his book *The Customer Connection*, John Guaspari defines the relationship in the following way:

**Realize** that the customer has all the votes when it comes to quality.

**Remember** that the customer has all the votes when it comes to quality.

**Recognize** that the fact that the customer has all the votes when it comes to quality is as it should be - that it makes perfect sense.

Thus binders should perceive their role differently. They no longer will be product oriented. They no longer are just rebinders of books and binders of periodicals, paperbacks, and theses. They are partners with libraries in the preservation of printed matter. Anything that can be done to further that goal, and to enhance that partnership should be undertaken.

The greatest obstacle to enhancing customer service is that the entire organization must be involved. It is ludicrous for a library bindery to establish a customer service department, and expect that it will produce satisfied customers without the complete support of every person in the bindery who comes into contact with a customer or the customer’s volumes as they are bound. It involves the salespeople of course. It involves the receptionist who answers the phone, and it involves members of the office staff who prepare orders and invoices. It involves the drivers who pick up and deliver the work at the libraries. But it also involves the person in the bindery who makes sewing decisions. It involves the maintenance man who changes out the nicked blade. It involves the shipping clerk who packs the books. It involves anyone in the entire process of binding a volume for a library who might
say, "That's good enough," and lets the work be done imperfectly.

It takes hard work by everyone involved to work toward the goal of achieving customer satisfaction. Without direction and without focus, this goal is difficult if not impossible to attain. Davidow and Uttal- have identified six categories which define the principles of customer service which lead to customer satisfaction. They are strategy, leadership, design, personnel, infrastructure, and measurement. Obviously, these categories are not meaningful without some explanation and application to the library binder, and that will follow. But the entire book is an exposition of the principles of customer service which will lead to customer satisfaction.

Strategy, according to the authors, is the framework that organizes all the other elements of service. The object is to limit your aim to those things that you do well. You can not provide superior service unless your business system is optimized to the needs of certain segments of the market. When binders are asked about their products and services, most would assert that they do everything, produce every type of service. The question should rather be, "What do you do well?" Serving the needs of public libraries and school libraries is different from serving the needs of university libraries.

Leadership is the category that implements the strategy. Those who are in charge must be fanatically devoted to providing service. That demands day-to-day commitment, and that day-to-day commitment includes commitment of financial resources as well as human resources. Superior service is not profitable in the short term. It takes a long-term commitment by those in charge.

"When binders are asked about their products and services, most would assert that they do everything ... The question should rather be, 'What do you do well?'"

Personnel is the next category of principles for superior service. How line employees perceive the service mission is critical in the completion of that mission. Hiring, training, and retraining the "right" people is necessary. That means that binders should be careful to hire those who can perform the jobs well. It also means that the binder should invest in those individuals hired by providing the exposure to training needed to improve their work. And it also means that those employees hired by the binder must be compensated fairly. That is by definition, more expensive than settling for whoever shows up for a job interview. It is only with the commitment from the company leadership that such a personnel policy can be realized.

Design considerations follow. Although Davidow and Uttal speak directly about new manufactured products, or the design of services, the same principles apply to the processes in the binderies. The delivery of a complete shipment of bound volumes is as much a function of the process as it is a product. All of the in-house systems which are used by the bindery should be designed with the goal of producing superior service.

Infrastructures are created to support the strategies, the leaders, the people and the design which deliver superior service. Although few have implemented training programs for their line people, binderies should consider periodic training and retraining as a priority in developing and maintaining customer satisfaction. Just as machinery needs lubrication and preventative maintenance to avoid problems, so does the service that is provided by the binder to the library.

Measurement is the final category mentioned by the authors. Tom Peters has said that "what gets measured gets done." Measurement shows how well the service strategy is working. Binders should measure internally, to see whether their products continue to meet the necessary specifications, and to ensure that their productivity is adequate. They should measure their delivery, to be sure that the promises that are made are carried out, and that deliveries are made in time. And they should measure externally, asking customers whether they are receiving the service they expect.

Make no mistake, however, there are pitfalls inherent in a partial or half-hearted implementation of enhanced customer service. I recently had to make an appointment with a different doctor than I usually use. Doctor's visits do not rank high on the lists of things that I like to do. I am sure that this holds true for most people. You can ask an appointment and you receive a time to appear at the office. When you arrive on time, you face an extended wait before you are ushered into an individual waiting room. You face another extended wait before the doctor rushes in, spends his allotted five minutes with you, and rushes out, leaving you in the hands of a physicians assistant or nurse. I generally leave the doctor's office feeling as though he has taken advantage of me.

This doctor's office thought, seemed to be different. When I called to make the appointment, the receptionist spoke with friendliness and warmth. The day before I was scheduled to be there, I received a call from the office confirming that I would be there, and checking on my reason for coming. This was not the treatment that I had been receiving from my regular doctor, and I felt confident that I would be ushered into the presence of this doctor much more quickly and efficiently.

I arrived about ten minutes early for the appointment. I filled out the necessary medical history forms, all the while being made to feel comfortable by the staff. And than I waited. I waited.
And I waited. For a total of an hour and a half. I waited. I was not ushered into a smaller room. I sat in the main waiting room. All of my hopes and expectations from the treatment that I had received up to this point were dashed. This doctor was no better than my regular doctor, and the hopes that had risen due to the staff actually made the experience worse than I had been used to receiving.

What is the moral of this story? Don’t raise the expectations of your customers by making or implying a level of service or caring that you are either unwilling or unable to provide. You must genuinely raise your service standards. As better service becomes available from binders, the expectations of libraries about binding services in general will rise. If all binderies were providing about the same low level of service, it would be easy to do a few things better than the rest, and earn a reputation as a service leader. But service in our industry has been getting better. Joining the leaders is going to cost more and take longer, and may be impossible for some binderies unless they implement their strategies immediately. Even the leaders must continue to expand their services if they hope to retain their position.

Implement new service strategies, and preserve and expand existing strategies—it is only then that the elusive butterfly of customer satisfaction can be added to your collection.

NOTES

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Are Bindery Tours Worthwhile?
by Pamela D. Jacobsen and Jeannine Uppgard

We don't often think of the many industries in our country as providing educational experiences for people of all ages, backgrounds, and interests. Yet, through the tours that companies furnish, individuals can learn how cranberries and maple syrup are harvested and processed; how ice cream is made; the workings of a computer industry; fire or police department, and how marble is transformed into statues and monuments. The list goes on and on. In the bookbinding industry, tours are also provided, albeit to a much more select group of individuals—the librarians who work in public and private institutions.

With so many industries providing tours, one almost immediately assumes that tours must be worthwhile. Why else would so many companies endeavor to present this opportunity to their customers, prospective customers, and yes, even elementary school children? While product-oriented industries may find that their tours help boost the sales of the products they preview, service-oriented industries, such as bookbinding, may not engender the same reactions. So what are the reactions that bookbinders receive from librarians taking bindery tours? Do they promote goodwill, further sales, increase the librarians' knowledge of how books are bound? The lack of documentation or studies done on bindery tours makes the above questions hard to answer: especially if you would like to have answers which are quantifiable. To examine the question of the worth of bindery tours, it is of major importance to specify who these tours are supposed to be worthwhile for. Obviously, the best type of tour will be mutually beneficial to the librarian and the binder. Tours may serve a dual purpose, the first of which is to educate. Dudley Weiss addressed this objective when he stated "...that a major burden of education is now placed on the industry and the library profession." The need to understand the binding process is echoed in the words of Douglas Phelps in The New Library Scene, October 1984, where he comments on the lack of training provided by library schools when it comes to bookbinding. Also under the rubric of education is understanding. Bruce Jacobsen of Library Binding Institute suggests that "only by understanding the problems and procedures of each other's worlds can librarians and binders reach a true cultural understanding."

The second purpose is economic. From a tour, one may hope that the participant will see the value of the product or process, and wish to become a customer. To analyze all the variables which influence a librarian who is making monetary decisions is beyond the scope of our current study. In this article, we will be focusing on the nature of the knowledge that librarians feel they need to gain, or have gained, by participation in a bindery tour.

In order to explore the responses of librarians, a study was undertaken in March 1988 of tours being given at Bridgeport National Bindery in Agawam, Massachusetts. The purpose of the study was to determine if librarians felt that the bindery tour increased their knowledge of the binding process, and if so, in what ways. As this was a pilot study to determine areas in which trends were evident, several questions intended to determine who participates in the selection process of binderies were also included.

As background, it was found that Bridgeport National Bindery has been providing tours since at least 1978. Tours are sporadic in nature, and most of the time the tours are initiated by bindery personnel, especially by the bindery's salesman, in response to several areas: present customers who are having difficulty in understanding some aspect of the binding process (such as binding slips); prospective customers wishing to "check out" the bindery; present customers wishing to become familiar with the physical surroundings of the bindery; and an occasional tour to a library association such as Massachusetts Library Association. In an average year, the bindery hosts approximately 15 tours, having anywhere from 1 to 10 individuals in a tour. As of September 1988, 22 library personnel and 4 suppliers had arranged tours of the bindery. Of the 22 librarians, 16 received questionnaires. The 6 individuals who did not receive forms were employed in a part-time capacity. The criteria we established required that those surveyed would hold full-time library positions. For this reason, suppliers were also not included.

Results
Information for this study was gathered using an anonymous questionnaire which was sent to librarians taking bindery tours from January 1, 1988 to September 15, 1988, the names being taken from a list which is maintained by the bindery. Fourteen librarians returned the questionnaires, of which we were able to use thirteen. This represents 59% of those librarians having taken tours in the last 9 months. The librarians surveyed were from the states of Massachusetts, Rhode Island, Maine, New York, and Virginia, and represented academic, public, and special libraries. Fewer than half (38%) of the respondents indicated that they were involved in the selection process of binderies. The remaining 62% felt that personnel other than themselves were responsible for that decision.

The results of the study are organized in the following categories: demographics; purposes for attending; tour experience; and general knowledge gained.

Continued on page 8
For most of the tour participants, this was their first bindery tour and of these all indicated that their knowledge of the binding process and of the overall structure of a bindery had been broadened. Asked to rate on a scale of 1 to 10 being the highest degree of change in their perceptions of a commercial bindery that resulted from the tour, answers ranged from 2 to 10, with the mean response being 6.0. This mean or average of the ratings is indicative of an overall positive response by these tour participants. The lowest scores were given by librarians who had been on other tours; the highest, by those for whom this was their first tour.

**Conclusion**

In any study involving a stratified, or specific professional group, great care must be taken to insure that a sufficient number of individuals are used in order to guarantee statistically valid results. While the 13 librarians represent 59% of those taking tours at Bridgeport National Bindery during this year, we would be remiss if we did not state that statistically the margin of error prohibits us from making any broad generalizations. The possibility of librarians reacting differently, depending upon the content of other bindery tours, and other important demographics must be noted. Keeping this in mind, we have found a positive response to the bindery tours which were taken by librarians. Of special interest are the reactions of those who are on their first tour. Further study may continue to substantiate that the first impressions of librarians to a commercial bindery are of major importance. Those who have responded as having taken other tours, besides that of Bridgeport National Bindery, did not reveal as great a degree of perceived change in their overall knowledge of the binding process as did those who indicated this as being their first tour. Their reactions were not limited to only the binding process, but also to the physical condition of the bindery (how clean or organized), and also the reactions of the employees as the tour progressed.

Using our present data, we can see no positive correlation between a librarian having or not having a Master of Library Science degree and their reactions to a tour. While the survey did not address the managerial level at which bindery decisions are made, this area would be deserving of further study since some librarians...
are functioning both as managers and clerks.

Binderies presently providing tours should note some areas specifically mentioned by the librarians as being of special interest:

- The process of oversewing; sewing through the fold.
- How the text block and the cover come together.
- The attention and employee care given to each book.
- Printing on the spine for each volume.
- How the notching machine worked.
- Conserphase books.
- How the computer handled the invoices and binding slips.
- The overall plant organization and how each step is dependent upon the previous.

Areas which librarians stated they would like to have included in a tour were:

- Rare books (11 out of the 13 librarians mentioned this)
- How paperbacks are bound.

We will be continuing our examination of reactions to bindery tours, and will be working on a methodology for tracking librarians taking a bindery tour and their future choice of a commercial bindery.

To any binder who endeavors to provide his present or prospective customers with a bindery tour, the positive reactions appear to confirm that bindery tours are viewed as being worthwhile to the librarian. Whether these tours can be translated into economic benefit to the bindery providing the tours remains open for further investigation.

Notes:


Pamela Jacobsen has an M.Ed in Computer Technology from Western New England College and is currently working on a MBA in Management Information Systems at Western New England College. She is adjunct faculty in the Graduate School of Education at Westfield State College, and works as an independent computer consultant. She is the author of "Microcomputers: A Medium of Influence or Influenced by the Media?" Educational Technology, November 1987. Jeannine Uppgard is the director of the Educational Resources Center at Westfield State College and her library maintains a curriculum collection for the Education Department and also supports a microcomputer lab and software collection. She has a MLS from SUNY-Geneseo and a MBA from Western New England College. She is the editor of Developing Microcomputer Work Areas in Academic Libraries (Meckler, 1988), and author of "Public Access Microcomputers in Academic Libraries", Small Computers in Libraries, 1987.

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Report On The Manufacture of Book Cloth and Buckram
by Lynn Jones, Assistant Head,
Conservation Department, The Library, University of California at Berkeley

This report is based on information presented at the Library Binding Discussion Group at the ALA Midwinter meeting, January 1988, San Antonio, Texas. The panel comprised Fritz James, President of the Library Binding Service, Des Moines, Iowa; Barclay Ogden, Head of the Conservation Department, University of California at Berkeley; and Carl Tauber, Technical Director, Holliston Mills, Lincoln, Rhode Island. In places, I consulted other sources to fill out my notes from the meeting. While the following report is based on the discussion, any errors of fact or attribution should be considered mine.

The program took three parts. First, Mr. Tauber reviewed broadly the steps involved in the manufacture of acrylic and pyroxylin impregnated book cloth and buckram. Second, Mr. James discussed some characteristics of existing book cloth and buckrams that cause problems in the binding process, and possible avenues for research that would yield a better and more uniform product. Third, Mr. Ogden sought more detailed information from Mr. Tauber regarding the chemistry and aging properties of both acrylic and pyroxylin coated cloth and from Mr. James on plans for developments in availability of book cloth and buckram, and Mr. Tauber fielded questions from the audience.

1. Coatings

Holliston Mills purchases on the international market, the woven cloth (greige goods, pronounced grey) that forms the basis of book cloths and buckrams. The greige goods purchased conform to Holliston's specifications, such as those established by the Library Binding Institute and other users of coated cloths.

The basic steps in the coating process are:

1) Bleaching. Removes starches and waxes applied by the weaving mill, and non-cellulosic materials (such as seeds, twigs, and hulls) left in the cotton fibers.

2) Drying and Stretching. After the greige goods are washed and bleached they must be stretched back to their original dimensions while drying.

3,4,5) Dyeing, Sizing, Filling, and Coating. These steps may be combined or ordered differently depending on the coating being applied. Sometimes, the bleached cloth is dyed before coating, depending upon the desired finish. Vellum products are dyed to match the final shade, linen finishes are undyed so the threads will show white. Sizing may be a separate step.

The liquid coating (either pyroxylin or acrylic) is spread on the surface of the cloth and the excess scraped off. The amount scraped off varies with the final finish of the cloth; vellum finishes have heavier coatings than linens, which are lightly coated so threads will be exposed.

6) Heating and Curing. Pyroxylin cloth must be dried, while acrylic coated cloths require curing.

7) Calendaring. The coated cloth is pressed between calendar rolls to achieve smoothness and caliper control.

8) Inspection. Finished goods are inspected for quality, and cut into rolls for shipment to book cloth suppliers.

Three coating materials have been used in book cloths and buckrams: starch, pyroxylin, and acrylic. The advantages and disadvantages of each were reviewed.

STARCH: Starch is the oldest of the coatings, and has been used from the early 19th-century to make raw cloth into a
Continued from page 1

suitable book covering material.

Advantages: Cheap to manufacture and simple to process because it is a water based material. Starch coated cloth is esthetically pleasing both visually and to the touch. The coating is flexible, that is, it folds easily and conforms well to book surfaces. Starch coated cloth has good chemical stability.

Disadvantages: Starch coatings are sensitive to moisture, will allow dyes to bleed if wetted, and support the growth of mold and insects. Additionally, starch coated cloth is not very resistant to abrasion or flexing.

PYROXYLIN (Nitrocellulose): Introduced as a binder for cloth coatings by Holliston Mills in about 1931. Pyroxylin has common application in finishes for furniture and leather. Nitrocellulose is a compound of nitrogen and cellulose, which can be very unstable in certain proportions. (Gun cotton and cellulose nitrate photographic films are examples of unstable compounds of cellulose and nitrogen.) Grades of nitrocellulose that are used in coatings contain less nitrogen and are more stable. Compounding with other materials, such as fillers and plasticizers, increases the stability of cellulose nitrate.

The pyroxylin coating is composed of pyroxylin as the binder, pigments and clay as fillers to give color and opacity, and vegetable oils as plasticizers to keep the coating flexible. Plasticizers are specifically chosen to minimize migration.

Advantages: Good printability and water resistance. Resistant to mold and insect infestation. Very durable. Satisfactory aging properties have been demonstrated by years of use.

Disadvantages: The potential of plasticizer migration with attendant loss of flexibility. A mild odor.

ACRYLIC: Developed as a book cloth coating material recently, but not widely available. Acrylics as a group of plastics are chemically stable and are considered appropriate for a variety of conservation applications. Acrylics are manufactured in a range that extends from very rigid materials to very soft materials. As flexibility is achieved (and rigidity/toughness is sacrificed) tackiness increases. Variations in formulation and in curing affect the rigidity or tackiness of the finished product. What seems difficult to achieve, and what is needed in a good book cloth, is a coating that is tough enough to be durable, soft enough to be flexible, and yet not so tacky that it blocks (sticks to itself).

Acrylic coatings must undergo a thermal curing process to optimize their properties. If undercured they will block; if overcured they will be brittle and difficult to print.

Advantages: Water resistance better than for starch but examples I have seen are less resistant than pyroxylin. Resistant to mold and insect infestation. Good ultraviolet resistance.

Disadvantages: Durability not proven with field experience. Research needed to demonstrate reliability equal to or better than nitrocellulose.

2. Greige goods

Buckram has been used as a binding cloth since the early 1900's. The fabric was not designed specifically for use as a bookbinding cloth (it may have first been used for sails), but a heavy duty 100% cotton cloth was probably among the most durable fabrics then made. Now it appears that its fiber content, weight, and weave all cause problems in bookbinding.

Continued on page 6
Group F buckram (the heaviest weight, and the one specified in the LBI Standard) must be 100% cotton and must weigh a minimum of 7.9 ounces per square yard. Unfortunately, this weight fabric is too bulky to fold neatly at corners or to conform well to the contours of most books, except the largest and heaviest.

Its unbalanced weave (with more than three times the number of threads in the warp than the weft) causes it to be stronger in the warp direction than in the weft, and yet in practice the cloth is cut without respect to its grain direction in order to get the maximum number of pieces from a roll of cloth. This may lead to structural breakdown when cloth is used with the weft across the joint of a case. Finally, the greige goods from which cotton buckram is manufactured include wide variation in caliper and many imperfections which prevent clear stamping, generating large amounts of wasted cloth at the bindery.

Yet another drawback to the reliance on 100% cotton greige goods is the cost. Recent demand for 100% cotton materials in the garment trade has pushed the price high above previous levels, and reduced the availability of good quality material on the world market.

Research is needed to develop a new material for greige goods, one that is designed to meet the needs of bookbinders and that will rectify the problems of greige goods now specified. A promising path for this research is fabric woven of a blend of polyester fibers and cotton fibers. The greater tensile strength of polyester could allow manufacture of a lighter weight fabric with strength comparable to or better than current Group F buckram. Lighter weight fabric will have greater flexibility for neater corner folding and better conformance to book surfaces.

Because polyester is a synthetic it can be spun to a uniform thickness, leading to less variation in the caliper of finished cloth and reduction of waste. As a synthetic, polyester fibers are manufactured in a pure form, and their use would reduce the need for processes to remove non-cellulosic wastes from greige goods.

This bookbinding cloth could be woven with an equal number of threads in both directions to equalize the strength of the cloth in both directions. This could reduce considerations of grain direction at the point of cutting and applying cloth to cases.

Mr. James suggested that through improvements in the greige goods on which book cloth and buckram are based, not in changes to pyroxylin coating, fabrics could be manufactured that in many ways better serve the needs of bookbinders and manufacturers. To this end, he announced that his firm is in the process of developing a 50/50 cotton polyester bookbinding fabric at a cloth weight to meet performance specifications of the National Association of State Textbook Administrators (NASTA).

3. Conclusion

Several conclusions can be drawn from the previous discussion. One is that pyroxylin coatings as presently manufactured perform better than acrylic coatings now available. A second is that there is no evidence that acrylic coatings are more stable than pyroxylin. While further investigation into the chemical stability of pyroxylin is warranted, the field should not abandon pyroxylin at this point, since there is no substitute proven equal in performance and superior in longevity.

We can also conclude that many of the difficulties we experience with buckram result from qualities inherent to the greige goods now used. In addition to characteristics of coatings. Improvements in the fiber content, weight, and weave of greige goods are likely to lead to buckram that meets our needs better than do current products. Research and development efforts should focus on the improvement of greige goods. Since this will have a great effect on the performance characteristics of buckram.

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Please follow these procedures for submitting manuscripts to The New Library Scene.

1. Submit original, unpublished articles only. Do not submit manuscripts being considered for publication elsewhere.
2. Articles should be 1500 to 3000 words in length on subjects of interest to librarians.
3. Write in simple, readable style that is grammatically correct. Please remember the author is responsible for the accuracy of all statements in the article.
4. Manuscripts should be typed, double spaced on 8½ x 11 inch non-eraseable bond paper.
5. Be prepared to supply photographs or other camera-ready illustrations if applicable.
6. Be sure to keep a copy of your article for your files. Only manuscripts accompanied with return postage will be returned to the author.
OPEN FORUM

The American Library Association (ALA) Midwinter Meeting was held in San Antonio, Texas, January 24-30, 1992. The Library Binding Discussion Group — part of the Preservation of Library Materials Section (PLMS) — met on Saturday, January 25th. The following are the presentations of two library binders to the discussion group.

The Importance of Rounding and Backing

By James Larsen
Bridgeport National Bindery
Agawam, Massachusetts

Having given considerable thought to the topic "The Importance of Rounding & Backing" (hereinafter referred to as R & B), I am struck with the inescapable conclusion that over the past dozen years this issue has perhaps been more exhaustively discussed, debated and written about than any other single topic dear to the hearts of library binders. Assuming you’ve been in the business at least that long, and assuming you read The New Library Scene articles, as well as other bookbinding literature, you will probably not read anything really new or even terribly provocative in this OPEN FORUM article. It has pretty much all been said — and said very well through the year by the likes of Werner Rebsamen. Matt Roberts. Don Etherington, Dudley Weiss and Jack Bendror. We are indebted to them and others for their historical, scientific and practical wisdom on the important of R & B.

Why then is such a topic hotter than ever? The simple answer is that R & B is once again in the news because a small but particularly vocal group of binderies has decided to challenge the concept of R & B. This group claims that R & B is irrelevant to quality library binding. We believe that such a closed minded approach to decisions as critical as book architecture is tantamount to the concept of binders providing one method (and one only) of leaf attachment or a "choice" of one color (and only one. probably black?) of cover material.

We believe that choice, dictated by the complexity and variety of products we work with daily: and choice made necessary when the investment in a library’s collection maintenance is viewed in the long term vs. the short term — is an integral component in the partnership between library and binder. When choice is threatened, then the viability of a library’s collection maintenance program is in immediate peril!

This, we feel, is ample reason to look again at the critical question of book architecture — How are my volumes put together? How will they hold up to punishing library usage? How am I spending my binding dollars? Was I given a choice in this critical question of the importance of rounding and backing?

What is R & B? Referring back to an article by Werner in an August 1984 issue of The New Library Scene we couldn’t improve on this description. “Rounding is a forming operation. Rounding forms the binding edge into a convex shape ... this operation achieves an effect much like that of a bridge span, where stress forces are evenly distributed, eliminating excessive pull on the ends. Swell, the build-up of sewing thread and/or adhesive, is put into a controllable form.” A further look at rounding comes from Matt Roberts’ and Don Etherington’s seminal work. “Book-

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binding and the Conservation of Books - A Dictionary of Descriptive Terminology,” published in 1982. “A book is rounded to help prevent the spine from falling in, i.e., assuming a concave shape (and a convex fore edge), which could result in severe strain on the hinge of the book. It also facilitates the backing process: the two processes in conjunction helping to accommodate the swell in the spine...”

They go on to say that the practice dates back to at least the middle of the 16th century! Referring still to Roberts and Etherington, “Backing is a process of shaping a ridge or shoulder on each side of the spine of a text block prior to the application of the spine lining material. The backs of the sewn sections or leaves are bent over from the center to the left and right until shoulders are formed against which the boards will fit. The dimension of the shoulders is determined by the size and bulk of the book. In addition to providing for the boards, backing also: 1) allows for the swell of the spine caused by the thread used in sewing, or by excessive guarding; 2) helps maintain the round of the book by the fact that each leaf from the center outward is folded over the leaf next to it so that it cannot work its way forward and thus cause the book to cave in; 3) helps impart more flexibility to the book by creating a slight crease in each leaf near the spine, to the extent that backing has something of a scoring effect which makes the book easier to open and facilitates turning the leaves; and 4) makes a better joint for the cover, one which opens easier and is stronger, since the point of strain during opening is spread over a strip of the covering material. Furthermore, the angle of conformation of the spine caused by backing probably provides for better vertical standing support of the text block. Some authorities consider the backing of a book to be the most important and difficult of all the processes in the craft of hand bookbinding, and poor or inadequate backing is certainly one of the major sources of problems in the processes of edition and library bookbinding.”

continued on page 16

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And finally, historically speaking, "although books dating from at least as early as the beginning of the second half of the 16th century were often rounded, backing for the purpose of forming shoulders seems not to have an established procedure for 1500, or perhaps somewhat later. It is uncertain when bookbinders discovered that rounding and backing was a superior bookbinding technique. The swell caused by sewing sometimes causes books to assume a slight round with no effort on the part of the bookbinder, and, over a long period of time, the pressure of the boards perhaps even results in the effect of backing."

Now that we have defined our terms and given a brief glimpse of the historical roots of R & B, we will now look at R & B from the point of view of a library binder, regarding WHY R & B? WHEN TO P & B. and concluding with WHEN NOT TO R & B.

WHY R & B? Good bookbinding constitutes a series of potential problems that have been given the best possible solutions! As already alluded to, there is a "problem" known as the natural swell at the binding edge caused by the unavoidable build-up of sewing thread and/or glue (from double fan adhesive binding). The best solution to this problem is found in causing the naturally rounding form to assume an even, convex shape ... to control the inevitable!

As stated in our definitions, the long term strength/durability of the "book as package" is enhanced by R & B. As a general rule - books that are R & B tend not to sag and put excessive strain on the joints and hinges. Secondly, books that are R & B open easier and generally work with the leaf attachment method used providing for a longer life under hard library usage. And thirdly, there is generally more support for the text block provided by the covers when a volume has been R & B.

The second point under WHY R & B? - is the issue of flexibility/openability. Already touched on in the strength/durability section, the enhanced flexibility of a R & B volume is of critical importance to a library. Aside from the fact that better flexibility/openability will protect that investment by diminishing the strain to the binding, the increasingly important issue of photocopying from these volumes is of no small concern! With ever decreasing margins provided by the publisher, even a small flexibility advantage at the photocopier, is of great consequence.

The shape/appearance issue - the last of the three issues under the heading of WHY R & B? is perhaps what the critics of R & B consider the most subjective (even sentimental) of the issues. This would be true if the shape/appearance issue came about as a result of some 16th century marketing wizard deciding that the shape of what we now refer to as the traditional "book look" would help to sell this new invention! This of course couldn't be further from the truth. What we have here is a classic example of form following function. The strength/durability and flexibility/openability issues - when incorporated into a book as package, result naturally in the traditional book shape that we're all familiar with.

WHEN TO R & B is closely linked to the issues of WHY R & B?. When the qualities of strength/durability and flexibility/openability is the goal - then it follows that R & B will be required to meet that objective. When contract specifications or customer expectations call for it, or when producing work that is being sold as 8th Edition LBI Standard binding, then R & B is a given. with the following qualifications.

WHEN NOT TO R & B calls for a binder to use sound judgment. and have the best interests of his customer foremost. in making those judgements. We feel it is imperative. on the part of the binder, to train his staff sufficiently to be aware of the materials that flow through his bindery. As apart of the critical examination of a library's incoming materials. they should be watching out for volumes with some of the following characteristics: 1) fragile, embrittled paper; 2) size limitations relative to the LBI Standard for Library Binding. 8th Edition and/or machine tolerances. These include thin volumes up to 1/2" and excessively thick or tall volumes. 3) complexity. such as volumes swollen by moisture damage. mounted photographs. etc., and finally. 4) when issues of strength/durability and flexibility/openability are not critical. and price alone is the determining factor.

We have tried to address the importance of R & B to library binding. We have defined the process. referred to its historical roots. examined it from technical and engineering aspects. discussed the merits of what it accomplishes and closed with some specific reasons for refraining from it. Just as it would be irresponsible for a binder to R & B everything, it is no less irresponsible to process everything in a Flat Back mode! It would seem that the importance of R & B to library binding is self evident. This is not to say that flat backs (volumes bound without R & B) have no place in our world. ON THE CONTRARY! We've just discovered four situations where leaving volumes flat backed is the thoughtful and correct choice! The flat backed product was developed years ago as an economy binding - and as such. may warrant a place on the list of binding styles libraries wish to request! However, the thought of producing virtually everything that comes through a bindery in the flat back - no R & B mode, presents many problems. When the demonstrated need for R & B on high and medium use titles is ignored. the library is short changed several ways. 1) Flat back volumes work best when oversewn and kept under 2" in thickness. The problem is that many volumes require fan adhesive binding; and the cover hinges, even on medium use volumes, tend to cave back in leaving the hinges in jeopardy and the fore edge exposed. 2) Many volumes exceed the under 2" practical limit. giving the library a "devil's choice" - authorize a splitting of volumes down into more manageable thicknesses. thereby increasing (often needlessly) the number of bindings billed to the library. or
the library can insist on keeping to the customary and reasonable thicknesses associated with volumes that had been R & B, and live with the unsightly, sagging, damaging effects of the weight of the volumes, effects which would be minimized or eliminated by R & B.

A third and final problem comes when the indiscriminate use of the flat back style is used on older library books coming in for re-binding that are already R & B: the type of books that are best processed by re-casing and retaining both the original sewing and traditional book shape.

There's no question that we as binders must provide responsible options (choices, if you will) in our product and service offerings - choices made necessary by the awesome complexity and variety of library binding, and by a library's budget! By using the LBI Standard for Library Binding, 8th Edition and Guide as a benchmark of both affordable and responsible library binding, both library and binder have a "safe harbor" in which together, they can make the responsible decisions concerning the maintenance of the library's collection.
The Library Binding Institute emerges from the Library Binding Division of the Book Manufacturers Association in June 1935 when the NRA is declared unconstitutional. Already in January 1935, the Division had formed a Joint Committee with the Bookbinding Committee of the American Library Association. The duties of the Joint Committee are "to facilitate solution of problems of common interest to libraries and members of LBI and to cooperate in maintaining the highest possible standards of craftsmanship and responsibility of members of LBI."

The first LBI convention is held in Cleveland in September.

- **1935** -

- **1936** -

The Joint Committee announces a formal certification plan to assure standards of quality and fair dealing in the industry. By June 1936, 65 members had been provisionally certified.

- **1937** -

Standards for Reinforced (Prebound) New Books are adopted by the Joint Committee.

- **1939** -

LBI sends members the first issue of Book Life (published to encourage long life for books).

- **1941** -

LBI issues "A Defense Program for Your Own Business" even before the U.S. became involved in the hostilities of World War II.

- **1942** -

A "Special Wartime Bulletin" is sent to inform members on labor and materials shortages during World War II. The Institute issued 13 bulletins during the war emergency.

- **1943** -

LBI issues the first of three annual letters to "LBI sons all over the world." The sons of LBI member binders returned messages from "over there" in subsequent issues.

- **1948** -

Pelham Barr, creator and developer of LBI and its first Executive Director, dies and is succeeded by Earl W. Browning. A retired librarian of the Peoria (Illinois) Public Library, Browning is a former member of the Joint Committee.
The Seal in use from 1956 to 1960.

- 1951 -
The Library Binding Manual, prepared by Louis N. Feipel and Earl Browning of the Joint Committee, is published by ALA.

- 1952 -
Minimum Specifications for Class "A" Binding of the ALA and the LBI are revised.

LBI legal counsel is Dudley A. Weiss, and the Public Relations Counsel is Melvin B. Summerfield.

- 1953 -
Edith Barr, sister of the late Pelham Barr, is the new executive secretary and Charge d'Affairs of LBI.

First poster, "Barefoot Boy," is printed and available to libraries and civic organizations. A new poster was available each year through 1972.

The draft of a Fair Trade Practice Regulation, prepared by LBI for the library binding industry, is unanimously adopted at a Fair Trade Practices Conference in New York in April.

- 1954 -

The Joint Committee is discontinued.

Gane Brothers announces a new staple buster for library binders.

Frances Kennedy from the Oklahoma City University Library wins the LBI prize contest for submitting the best essay on "How Our Library's Conservation Program Has Benefitted from the Use of Class 'A' Binding Specifications." Her prize is $250, a trip to Washington to attend the joint session of librarians and binders, and she will be pictured on the next poster.

- 1955 -
LBI moves from New York to 10 State Street, Boston—"practically on the spot the old State House once stood."

- 1956 -
Materials available from LBI include "interesting colored slides showing binding operations," a brochure for trustees and one on water damage and a chart listing the 41 library bindery operations.

Library binding comes out on top when tested with publishers reinforced binding in two tumbling tests and an abrasion test. The tests were made by the United States Testing Company, Inc. Hoboken, N.J.

- 1957 -
The first LBI scholarship for $1,000 is awarded to Ruth Carol Scherer of Ruston, Louisiana, who was selected from more than 60 finalists. The scholarship, which was awarded annually to a student to further his or her library education, was given until 1974.

The Silver Book Award is established by LBI in recognition of those individuals who have made a substantial contribution to the advancement of library science.

Major revisions are made in the LBI Standards for Library Binding and for Pre-Library Bound New Books.

- 1958 -
LBI is cited for special appreciation in the ASAE awards activities for "unique and outstanding contribution to association management."

The movie, "The Art That Binds," is produced by LBI.

- 1960 -
LBI elects its first woman president, Mrs. Marie Ruzicka Gross, at its 24th convention in Denver.

Total cost per circulation of a library bound volume is estimated to be $.074.

- 1961 -
The following new machines are discussed at the convention: Versamatic Book Paster, Center Fold Cutting Device for Magazines, Merz Turning-In Equipment, Automark Book Stamp Machine, Bakerloc Automatic Cover Positioner, Sulby Minabinda, Polar Paper Cutter, Hydro-Press, Library Binding Back Lining Machine, Library Binding End Paper Creaser and Sealer.
As part of its quality control program, LBI is conducting an inspection of every certified library bindery in the U.S.

"TWO VERTEBRAE IN THE BACKBONE OF AN INDUSTRY," Frank M. Barnard and Joseph Ruzicka, are pictured on the cover of THE LIBRARY BINDER in May.

The Handbook for Library Binding is issued. It can be purchased for $1.

The "Institute on Business Planning" is initiated to make available to members the most modern management methods and techniques. First case study is held at LBI's December meeting in Scottsdale, Arizona.

LBI provides a poster, "KNOWLEDGE — Challenge for the Future," to promote LIBRARY/USA at the New York World's Fair.

LBI celebrates its 30th anniversary, and the film, "From Babylon to Bibliothèque," is produced.

Dudley A. Weiss presents a Statement to the United States Senate Committee on the Judiciary (Subcommittee on Antitrust and Monopoly).

Marjorie Coombs Gunn retires after more than 11 years as executive secretary of LBI.

The Library at Singapore purchases a copy of the LBI film, "The Art That Binds."

LBI staff members are Dudley A. Weiss, Executive Director and General Counsel; Melvin B. Summerfield, Public Relations Director; Martin A. Summerfield, Public Relations Program; Claire V. Tenney, Executive Secretary; Deborah Mary Kimball, Office Operations; William H. Foley and Joseph F. Coughlin, Quality Control.

A chart, "Federal Funds for Your School and Library," printed in THE LIBRARY BINDER is available to librarians.

It is reported that LBI members' sales have increased 237% from 1957 to 1968.

LBI observes its 35th anniversary. The LBI Technology Committee is studying nearly a dozen new materials for books and evaluating new equipment.

The library binding industry is doing more than $35 million of business yearly.

According to Ralph D. Schnable, LBI president, in an article, "The Economics of Library Binding," an expenditure of $3.27 to rebind a book, rather than purchasing new volumes, will save a library $50.00.

The third edition of The Library Binding Manual, prepared by Dr. Maurice F. Tauber of Columbia University and published by LBI, is for sale for $5.95 ppd.

THE LIBRARY BINDER gives way to THE LIBRARY SCENE which is described as performing "a definite service for libraries and librarians, acting as a forum for all contemporary thought in the field." A library is featured in each issue from 1972-78.

The directory of certified library binders numbers 61 binderies in 28 states and Canada. Five binderies—Ruzicka, American, Motter, Barnard and Dobbs—are cited for awarding scholarships to students in the library field.

"Library binders were faced with ever spiraling costs, material procurement problems, changing personnel and diversified customer requirements," according to an editorial by Dudley A. Weiss.

LBI, in conjunction with Sam and Emily Ellenport of the Harcourt Bindery, sponsors a conservation seminar.
The current seal was first used in 1960.

The drawing of a bookbinder with the instruments of his profession was used with the feature, "Dialogue: Between Librarians and a Binding Authority," from 1978-81.

The Library Binding Institute moved into the 80's with a logo.

The fortyeth anniversary of LBI is celebrated and the last Silver Book Award is made.

The first laboratory for testing library books is dedicated September 20 at the Rochester Institute of Technology. It will be under the direction of Werner Rebsamen, technical consultant to LBI.

The new 16 mm. film, "Binding the Past for the Future," is available from LBI for $25 a week; educational institutions may purchase it for $250.

LBI offers free examination of bound volumes for libraries wishing to determine quality or adherence to LBI standards.

Two workshops, one in Pittsburgh and the other in New York, on "Prolonging the Useful Life of Library Materials," are co-sponsored by LBI and regional library associations.

An editorial in THE LIBRARY SCENE proclaims a "Revival of Attention to Binding Standards."

Melvin Summerfield leaves the LBI staff, and Beverly Ann Adamonis becomes the first woman editor of THE LIBRARY SCENE.

The Library/Binders Relations Committee meets for the first time at the June ALA meeting in Chicago. The committee is "to provide a formal channel for exchange of information between librarians and binders and to work at solving problems of mutual interest."

The emphasis is preservation! A four-part series, "Preserving Our Library Materials," by Robert DeCandido of the New York Public Library, is running in THE LIBRARY SCENE, and an editorial calls LBI's workshops "Crusades in Preservation."

A three-year program is instituted to obtain in-use data on cover materials to be used in Class "A" binding.

LBI President, Mel Kavin, made comparisons with the information in President Bernard Schaefer's column in the first LIBRARY BINDER. In 1952 there were 46 certified library binders with $4 million in sales; in 1980 there are 50 certified library binders doing $40 million in sales.

The LBI Standard for Library Binding was revised and adopted at the May convention in San Diego.

Dudley A. Weiss, LBI's Executive Director for 30 years, retires in January. In a tribute to him, it is noted that he established the world's first and only educational book testing laboratory, played a major role in the preservation movement and was instrumental in the success of many joint library/binder activities.

The Book Testing Laboratory is formally dedicated as the Dudley A. Weiss Book Testing Laboratory.

Al Leitschuh is named executive director, and Lana Shanbar becomes the editor of the magazine. THE LIBRARY SCENE becomes THE NEW LIBRARY SCENE. A new logo, signifying "an industry on the move," is introduced.

LBI administrative office is moved from Accord, Massachusetts to Wayzata, Minnesota. Angela Nevin is the new executive secretary.

Sally Grauer is the new Director of Communication. Work is begun on revising the LBI Standard for Library Binding.

There are certified international members in Australia, England, Japan and Scotland.

The LBI archives are being put into shape by archivist, Brian J. Mulhern.

Sally Grauer is named Executive Director of LBI.

50th ANNIVERSARY! 50th ANNIVERSARY! 50th ANNIVERSARY!
TESTING GUIDELINES FOR THE LBI

1. Each test should be designed so that only one variable is tested, all other factors should be held constant. For example, the following should be true for all LBI tests:

   Books to be tested should be bound using identical binding techniques and materials (except for the factor being tested).

   All bindings must be produced at the same time and in the same bindery (unless more than one batch of similarly constructed bindings is to be produced and compared). It is highly recommended that two or more batches of sample bindings be produced (at two or more binderies) to rule out specific variations or weaknesses of a particular bindery.

   All sample batches of books should be produced and tested under the supervision of an impartial, but knowledgeable person.

2. All testing should be done at an independent testing laboratory.

3. All materials, sample batches of books to be tested, and any relevant variable factors should be labeled so that the testing agency and the technicians performing the tests are not predisposed to an outcome or biased in any way.

4. All information, literature, and resource materials used in the testing are to be of the most current version.

5. The procedures and materials used to construct the sample volumes to be tested, and the procedures used for testing, should be well-documented, approved by the Technology Committee of the LBI, and included as part of the final report.

6. All testing should have the goal of producing quantifiable data that is compiled in such a way that objective conclusions can be drawn. The testing agency should not attempt to interpret data, but merely to assemble it.

7. All test results should be published as soon as is practical after the completion of the test. It is desirable that the data and conclusions drawn be published in The New Library Scene and/or the Endpaper.

8. These guidelines should be reviewed as often as is deemed necessary, but no less than every five years.
Binding for Research Libraries
By Jan Merrill-Oldham

There are several methods that can be used by the library binder to attach the leaves of a book together to form a text block. The importance of choosing the binding method most appropriate for any given volume has been discussed frequently in recent years, not only in the literature, but at conferences and at the business meetings of librarians and binders. Two very good articles on the subject have appeared recently in The Library Scene: "Methods of Affixing Leaves: Options and Implications" by Paul Parisi (Vol. 2, no. 5, October 1983), and "Library Binding as a Conservation Measure" by Gay Walker (Vol. 3, no. 2, April 1984).

This paper does not attempt to reiterate the points made by Parisi and Walker, and readers not already familiar with library binding technology will find it useful to refer back to those earlier articles for detailed descriptions of the several methods of leaf attachment cited there.

The full value of learning about binding methodology is gained when that knowledge is put to practical use in the library. One way to do so is to develop a flow chart for making binding decisions. The first order of business in drawing up such a chart is to define the collection being bound — that is, to describe its nature and intended use. Based on that definition, and careful consideration of the strengths and weaknesses of the methods of leaf attachment now in use in library binderies, a set of guidelines can be constructed. The flow chart on page 22 suggests an approach to the binding of research library collections (i.e., collections of materials that are purchased for long-term retention). Binding techniques have been put in priority order based on their ability to yield the following desirable characteristics:

- The binding method should be as conservative as possible (i.e., it should alter the text block only minimally).
- The binding method should be as non-damaging to the text block as possible, and should not shorten its useful shelf life.
- The bound volume should open easily to a 180-degree position to facilitate non-damaging photocopying.
- The bound volume should stay open when resting face-up on a flat surface, so that the reader has both hands free and can take notes easily.

Why these criteria should be different from those established by other types of libraries might not be immediately obvious. In theory, they are highly desirable under any circumstances. In practice, however, whether a library can justify the extra cost of binding a twentieth century novel in the optimal way will depend on whether that novel will be retained indefinitely, or withdrawn when its popularity wanes. The cost factor is not taken into consideration in the decision-making model outlined here; rather, it is assumed that the added costs of employing optimal methods are reasonable given the overall goals and objectives of the institution. Upcharges for the "new case only" and "sew through the fold" methods generally result in only a modest increase in per-unit costs over the base cost of double-fan adhesive binding or oversewing. Upcharges do add up, however, and can be impossible for the non-research library to justify.

Preliminary Caveat

It is essential that libraries identify those materials that should not be library-bound, and earmark them for alternate treatment. Brittle monographs and journals are inappropriate candidates for commercial binding. A crude but useful test for embrittlement is to fold the corner of a page forward, dog-ear fashion (the "ear" should be small). Fold it backwards on the same

(continued on page 4)
crease, then repeat the process a second time (folding four times in all). If the paper breaks at the fourth fold or before, it is too degraded to bind. Although brittle books can often be successfully adhesive bound, such treatment actually does more harm than good. It implies that the item has been restored to usable condition, whereas in fact the text is vulnerable to breakage and consequent loss. Assuming that the option of withdrawing a brittle book from the collection has already been considered and rejected, alternatives for preserving it include replacement with a reprint, reproduction on microfilm or acid-free paper, and boxing it to await future treatment.

Items that have artifactual value are also unsuitable candidates for library binding. Whether a book will be deemed an artifact depends on a variety of criteria too complex to discuss here, but guidelines should be clearly spelled out in a library's binding policy statement. At the University of Connecticut Libraries at Storrs, for example, materials from Special Collections, pre-1850 imprints from the general collections, and notable machine-stamped bindings published between 1830 and 1920 are among those categories of materials that are rarely library-bound. Rather, they are treated in-house; or boxed to await treatment either in-house, or by professional conservators in the region.

New Case Only (called "retained binding" by Parisi)

The first thing to ascertain when deciding how to bind a volume is whether the text block consists of signatures that have been sewn through the fold; and if so, whether both the sewing structure and thread are sturdy and all the leaves of the text block attached. If these conditions are met, the binder can clean residual glue from the spine, reglue and rel ine it, and make and attach a new case (as described by Parisi and Walker). The end product has all four of the desired characteristics listed above. Issues of serials that will be bound separately and that consist of multiple signatures that are sewn through the fold can also be treated this way. It must be remembered that two issues, both of which are made up of several signatures, cannot be joined together in one case using the "new case only" method. New case only means just that; no sewing or other method of adhering leaves is involved. Text blocks that have been adhesive bound by the publisher should not be newly cased only. They are usually executed using inferior glue, and are not to be trusted. Rather, the original glue should be milled away and the text block double-fan adhesive bound by the binder.

Sewing Through the Fold (called "center fold sewing" by Parisi)

This method is most often used on serials that are issued in single-signature format, such as Newsweek. Through-fold sewing is done by machine or by hand, depending on the thickness of the individual issues. The end result, like the newly cased volume, meets all four criteria on the "desirable characteristics" list. Monographs can also be sewn through the fold, but they rarely are because of the extensive preparation required to do so. The

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2. Articles should be 1500 to 3000 words in length on subjects of interest to librarians.

3. Write in simple, readable style that is grammatically correct. Please remember the author is responsible for the accuracy of all statements in the article.

4. Manuscripts should be typed, double spaced on 8 1/2 x 11 inch non-erasable, bond paper.

5. Consult Webster's Ninth New Collegiate Dictionary for spelling and usage. We prefer first spelling. Verify the spelling and accuracy of all names included in the article.

6. Be prepared to supply photographs or other camera-ready illustrations if applicable.

7. Be sure to keep a copy of your article for your files. Only manuscripts accompanied with return postage will be returned to the author.

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Continued on page 5
original adhesive must be removed from the spine, the original sewing threads cut in many places and removed, the signatures gently separated, and all damaged folds skillfully repaired. (In contract, issues of serials need only have the staples removed from the center fold; and it is usually only the covers that need repair.) The cost of this preparation is high, unless (or even if) it can be done in-house, before the volume is sent out for binding. Consequently, the signatures are moved, the signatures gently separated, and critical illustrations or text that bleed to the center fold, making it impossible to mill the spines for adhesive binding or oversewing.

### Double-Fan Adhesive Bind

Unlike volumes that are newly cased only, or sewn through the fold, the spine of a text block must be milled (i.e., shaved away using a rotary blade) before it can be double-fan adhesive bound. For this reason the first two options on the flow chart are to be preferred. If, however, the volume to be bound is not sturdily sewn in signatures, or published in single-signatures format, adhesive binding is the next most desirable option. This method works equally well for monographs and serials if the text block is not too heavy or the paper too glossy. Like the two techniques discussed above, it results in a volume that opens well for photocopying and reading. If the adhesive method is used judiciously the end product will be a durable binding. (An experienced binder will be able to assist library staff in determining what types of materials can be successfully adhesive bound.) In fact, the technology is becoming ever more reliable as the quality of adhesives improves and binders seek better ways of applying them, and as new machinery is developed. The Mekanotch, a recent import to the United States, is one such machine (q.v. Parisi, p. 12). It has been said by some optimists that eventually the notched, double-fan adhesive bound volume will nearly replace the oversewn one — that even very thick, heavy text blocks will respond well to this method; other observers are more cautious. Test results are not yet in, but it is possible that notching will greatly expand the range of materials that can be double-fan adhesive bound with excellent results.

### Oversew

In cases where none of the first three binding methods can be used, oversewing is a suitable method if the inner margin of the text block is at least ⅛" wide. As Parisi and Walker have pointed out, the spine edge of a text block must be milled before it is oversewn, which removes up to ⅛" of margin; and the oversewing itself often uses as much as an additional ¼". Clearly, the volume that has only a ¼" margin to begin with will have an inadequate one, if any at all, after it is oversewn. On the other hand, since in the model described here, oversewing is the last available method, it would probably be chosen even under these borderline circumstances. In addition to the two disadvantages of oversewing that Parisi lists, a text block so treated often has poor openability. A simple way to observe this is to open an oversewn volume, lay it on a flat surface, and let go of it. It may snap shut — particularly if it is small-to-medium-sized. This response can be observed in both monographs and serials. Oversewing is very useful, however, for attaching the leaves of text blocks that are too heavy or glossy to adhesive bind.

### Box

When materials meet none of the criteria that appear in the left-hand column of the flow chart, boxing is a better alternative than putting an item back into the stacks as is, or withdrawing it simply because it cannot be rebound. A heavy volume printed on glossy paper, with inner margins only ¾" wide, and the original sewing structure not intact, might be boxed. (The only other alternative would be to try an adhesive binding.) Binders usually offer several varieties of protective enclosure, including portfolios and double-tray boxes, and some have begun manufacturing inexpensive acid-free board wrappers, (called phase boxes) that serve as useful a function as a fancier box.

### Other Options

Two methods of leaf attachment that are used by binders, but which do not appear in the accompanying flow chart, are side stitching and box.
cleat lacing. It seems that since most volumes that can be side stitched can also be double-fan adhesive bound, and since the latter results in a text block that has good openability, adhesive binding would be the preferred option. Since cleat lacing is noted neither for its durability nor its openability, and since any volume that can be cleat laced can also be adhesive bound or oversewn (depending on the nature of the paper and the weight of the text block), those latter options appear to be the better choices.

Decision Making

Once a suitable flow chart is devised, whether it resembles the one shown here or is an entirely different model, who should decide how each worn and damaged volume will be bound? In some libraries every volume is inspected in the bindery preparation unit, a decision is made by the staff, and instructions typed on a binding slip. If the bindery cannot follow instructions for any reason, the volume may be returned to the library and the decision reconsidered, or the bindery may have blanket permission to change a decision when necessary. At the opposite extreme from in-house decision making, some libraries present a flow chart to the binder at the outset of the business relationship. After it is discussed and found agreeable to both parties, the binder takes responsibility for making decisions based on the library’s preferences. Arrangements in most institutions fall somewhere in between, with the library making decisions on some materials, and the binder on others. At the University of Connecticut, for example, the staff of the bindery preparation and conservation units make decisions on nearly all monographs and a select number of serials; the binder assumes responsibility for the remainder of the materials. The flow chart itself is articulated in as much detail as possible in the technical section of the library’s binding contract.

Regardless of how a research library chooses to bind its collections based on the growing body of information available on this subject, it is essential that a plan for decision making be developed so that the binder can approach the work of the library with confidence, the library knows what to expect from the binder, and when differences of opinion arise there are guidelines to refer to. Such an approach can enhance an already good working relationship between binder and library, or can serve as the foundation for building one.

About the Author...

Jan Merrill-Oldham is Preservation Officer at the University of Connecticut, Storrs.
GETTING EDUCATED: A LIBRARIAN’S VIEW

By Jan Merrill-Oldham

For decades, libraries have had the luxury of sending materials to the commercial library binder for binding or rebinding. Commercial services make it possible for a library — whether or not it has the resources to establish and operate an in-house bindery — to cope with large numbers of texts that are in need of the protection provided by a hard, durable cover. Even as some members of the scholarly community refer to the Age of Electronics with convincing certainty, libraries continue to amass mountains of paper, and to rely on the library binder for a considerable amount of assistance in their efforts to preserve that paper. Binders impose physical order on unruly issues of serials, and revive books that would otherwise have to be retired. They work quickly (usually) and efficiently (usually), if not always flawlessly.

Commercial library binding is a difficult business. Unlike the edition binder, the library binder must deal with publications that vary — sometimes item for item in a single shipment — in size, method of construction, design and layout of printing, and nature and condition of component materials. The librarian's understanding of the technical challenge faced by the binder is likely to be superficial. What follows is a scenario that has no doubt been played out in many, if not most, of the nation's greatest libraries: Unbound issues of serials, worn and damaged monographs, and new monographs published in paperback format are routed to the bindery preparation unit, or retrieved by that unit (which might be attached to any department — but is most likely a section of the serials department). There, binding instructions are prepared for serials based on records that contain bibliographic information and notes relating to format. Monographs and serials are then packed in separate boxes and set aside to await the arrival of the binder's panel truck. How those boxes of books and journals are handled at the bindery is of little concern to the librarian, as long as they arrive back at the library on time; and with the pages of each text block firmly attached, cases covered in the correct shade of buckram, spines accurately stamped, and all volumes looking neat and tidy.

These procedures are a product of easier times, when librarians were librarians and binders were binders. Like all halcyon days, however, they appear to be coming to a close. One has only to glance at a few conference brochures to see evidence of their demise. In July 1983 the Resources and Technical Services Division of the American Library Association staged a two-day preconference on library binding, and since that time several conferences, among them Library Preservation: Implementing Programs (St. Louis, April 1984), the spring meeting of the New Jersey Library Association (Trenton, May 1984) have included sessions on binding. This flurry of educational programs for librarians suggests that there is something more they need to know about commercial binding services; that how to set up binding patterns and schedule pickups and deliveries is not enough.

It is the technology that we must come to understand. The developing field of library preservation (the term used here to include proper care and handling, conservation, reproduction, and commercial binding of library materials) has focused professional attention on library materials as physical objects, as well as carriers of information. It has come to our attention that there are a variety of actions we can take to maintain the physical health of a collection, and that library binding, as one of those options, is a complex technology that can be manipulated to custom-fit the nature of the collection being bound.

As library binders become convinced that the library community is interested in using their services in a more sophisticated way, they will begin to ask questions of us. "Shall we handle all serials published in single signatures by sewing them through the fold?" "We ordinarily oversew any volume printed on flexible paper and..." (continued on page 6)
having a margin of one-half inch or more. Should we apply this policy to your materials, or do you have different treatment priorities?" "Shall we trim all text blocks? None?" "How do you want us to treat paper tears?" These are questions we must be prepared to answer... knowledgeably.

For those who have already begun the process of self-education and it will be self-education, where in libraries will be self-education, where in libraries, we have, as yet, no comprehensive textbook on the topic of library binding, and in any case, many automated procedures do not lend themselves well to verbal description. Audiovisual programs are scarce, as are consultants and mentors. Because of the paucity of research and testing activities, many technical questions go unanswered, and the opinions and practices of the country's best binders vary—sometimes radically. What can one do, then, to garner an education, and to encourage the dissemination of more and better information? Here are some suggestions.

1. Read. Many significant articles have appeared in the Library Scene and The New Library Scene over the years. Some of the most important are listed with other useful citations in the RLG Preservation Manual (available from the Research Libraries Group). The Abbey Newsletter occasionally runs articles on library binding, as to a much lesser extent, do library journals that are general in scope. The binding contracts and guidelines developed by other libraries are usually available to the asking, and can provide a wealth of information. All librarians responsible for library binding programs should be thoroughly familiar with the Library Binding Institute Standard for Library Binding, and should refer back to it occasionally as their understanding of the technology increases. It's limitations may thus become apparent. As in all investigations, the literature must be approached with an open mind, and recommendations and assertions heeded with caution until they are supported by experience and observation. Conflicting opinions abound among practitioners and their clients, and while long-held beliefs are currently under fire, a new consensus has yet to be reached.

2. Observe. Visit the bindery or binderies with which you do business, and any others to which you are invited as a result of conference attendance or some other activity. The preservation of Library Materials Section (PLMS) of the American Library Association has sponsored several tours during recent years, and more are sure to be arranged. If you are able to have input when your visit is planned, ask for a guide who is intimately familiar with binding procedures and can answer your technical questions. How work flows through a shop may have no effect on the collections in your care. How the machines work; and how, when, and why they are used, will. Ask to have all sewing machines operated manually (that is, by turning belted wheels by hand, rather than by foot pedal) so that you can see how the needles pass through pages. (A subsequent reading or rereading of "Methods of Affixing Leaves: Options and Implications" [Paris, Paul A. The New Library Scene, 2(5):9-12, November/December, 1982] and "Library Binding as a Conservation Method" [Walker, Gay. Collection Management 4(1/2):55-71, Spring/Summer, 1982] will reinforce what you have observed.) Watch the contortions of the spine of a book as it is being rounded and backed. Take advantage of the opportunity to inspect text blocks in various stages of processing. Ask questions, and take notes. Read them over just before visiting another bindery, before it even two years later. Differences in approach and use of techniques among binders will emerge.

3. Attend conferences. The opportunity to learn from other librarians, conservators, and binders should become more frequent as the interest in new approaches to library binding grows. Don't always pass them up for a chance to hear, yet again, about the impact of integrated automated systems on the organizational structures of libraries. If library binding appears, on the surface, to be a topic of limited scope, that impression will quickly fade.

4. Inspect. Inspect binding shipments carefully, keeping in mind all that you know about options and standards. Before you decide whether oversewing is to be preferred to adhesive binding as a method for treating small and medium-sized volumes, open an oversewn book and let go of it. Does it stay open fairly easily? Are the margins adequate for photocopying? Decisions regarding use of various binding techniques should be made, the re-

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sults observed, and those decisions reconsidered based on new information.

5. Write. Letters to the editors of The New Library Scene, the Abbey Newsletter, and other appropriate publications can be very effective. Let people who make decisions regarding the flow of information know what you would like to hear about. The Library/Binders Relations Committee (PLMS/RTSD/ALA) is interested in communications from librarians, and is in the position to initiate projects and publications for which there is a demand. Write to the Library Binding Institute if you have unanswered questions, or would like to see a particular item added to the agenda of the industry’s research program, which is conducted at the Rochester Institute of Technology in Rochester, New York.

6. Watch. Keep an eye out for new training opportunities. A task force appointed by ALA’s Library/Binders Relations Committee is currently developing a substantive audiovisual teaching program that will cover a broad range of topics. An excellent annotated bibliography on commercial library binding is currently being prepared for publications, and other promising projects are in the planning stages.

As librarians learn more about library binding, the uninformed will likely discover, not too far into their studies, that the subject is as interesting and thought-provoking as any preservation-related inquiry. If enough librarians become concerned (or intrigued) enough to conduct vigorous investigations, what has been a halting dialogue between librarians and library binders could blossom into fruitful conversation.

Jan Merrill-Oldham is Preservation Officer at the University of Connecticut, Storrs, Connecticut.

Look for more articles by her in future issues.

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4. Manuscripts should be typed, double spaced on 8½ x 11 inch non-erasable, bond paper.

5. Be prepared to supply photographs or other camera-ready illustrations if applicable.

6. Be sure to keep a copy of your article for your files. Only manuscripts accompanied with return postage will be returned to the author.

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### METHODS OF LEAF ATTACHMENT

<table>
<thead>
<tr>
<th>METHOD</th>
<th>MARGIN LOSS</th>
<th>OPENABILITY</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewing through the fold</td>
<td>None</td>
<td><strong>Optimum</strong>, given grain direction of paper</td>
<td><strong>Above base</strong></td>
</tr>
<tr>
<td>Recasing</td>
<td>None</td>
<td><strong>Optimum</strong>, given grain direction of paper</td>
<td><strong>Above base</strong></td>
</tr>
<tr>
<td>Double-fan adhesive binding</td>
<td>Approximately 1/8&quot; for spine milling (if required) = 1/8&quot;</td>
<td><strong>Optimum</strong>, given grain direction of paper</td>
<td><strong>Base</strong></td>
</tr>
<tr>
<td>Oversewing</td>
<td>Approximately 1/8&quot; for spine milling (if required) + 3/16&quot; for sewing = 5/16&quot;</td>
<td><strong>Restricted</strong>, particularly when grain of paper runs perpendicular to binding edge</td>
<td><strong>Base</strong></td>
</tr>
<tr>
<td>Side sewing</td>
<td>Approximately 1/8&quot; for spine milling (if required) + 3/16&quot; for sewing = 5/16&quot;</td>
<td><strong>Restricted</strong>, particularly when grain of paper runs perpendicular to binding edge</td>
<td><strong>Base</strong></td>
</tr>
</tbody>
</table>
The Modern Book as Artifact
A Brief Bibliography
by Jan Merrill-Oldham
University of Connecticut


*Excellent introductory reading.*
Commercial Library Binding

Rationale

Commercial library binding is the preservation mainstay of most libraries. Library binding involves the use of covering materials that are durable and also water and oil resistant, cover board that does not delaminate, sturdy spine linings, sewing thread with high tensile strength, adhesives that remain effective over time, alkaline papers, and techniques that are considerably different from those used by book manufacturers. Library-bound volumes have an outstanding track record for remaining in usable condition over time. Library binding ensures that loose issues of serials are consolidated and protected, paperbacks are made serviceable through repeated circulations, and worn and damaged monographs with flexible paper are restored to usable condition. Changes in binding technology that have taken place in recent years have yielded bindings that open better and are easier to photocopy than their predecessors. Per-unit costs for binding are low, and services are readily available.

Administrative Issues and Policy Implications

When a research library establishes a preservation department, bindery preparation activities typically shift to that department. It is in the preservation department that appropriate expertise resides for analyzing binding technology, determining how to apply it best, developing appropriate specifications, and evaluating the quality of binding and other services. (Staff outside the preservation department must play a role in determining what information should be stamped on the spines of serial volumes, a function that can be managed successfully across departmental lines.) The close proximity of bindery preparation to conservation staff has considerable benefits in the form of training sessions regarding book structure and the nature of materials, day-to-day contact, and the development of a single workflow for worn and damaged volumes.

The preservation librarian, acting on observation and advice from collection development staff, develops policies regarding the categories of library materials that should be library bound. If specifications governing the library’s service and technical requirements for library binding are not in place, in the form of a document or formal contract, the librarian develops such specifications. Existing specifications may require revision to bring them into line with up-to-date practices. Administrators must be prepared to seek funds to increase budgets if binding has been inadequate in the past. They may also need to consider shifting binding funds and staff to other preservation activities, if on the recommendation of the preservation librarian, such a change would bring the library’s preservation program into better balance. It may be possible, for example, that library binding has been applied inappropriately in the past, particularly if a library has had no collections conservation program.
Human and Material Resources

The library administration and preservation staff must work together with systems staff to computerize binding functions, and link binding preparation systems with information residing in the library's on-line catalog and circulation system. Where negotiations with vendors are required, senior administrators must play a key role in justifying requests for linkages, and may need to work with administrators in other libraries to mount collective efforts to induce change.

Today there is an array of traditional and innovative binding options available, and new auxiliary services that must be evaluated for possible use. Understanding book structure and being able to assess the condition of book paper and original bindings are essential to using alternative techniques and new services successfully. As the skills required to manage a binding program increase, so too must the level of staff hired to supervise the bindery preparation program. Staff members in high-level paraprofessional positions are appropriate in some research libraries; in larger libraries an entry-level librarian may be more suitable. The overall professionalism of the supervisor can make the difference between a binding program that is only adequate and one that is well-integrated with the library's other preservation objectives.

The binding budget is often targeted for cuts when budget crises arise. It is the responsibility of the preservation librarian to articulate and justify budget requirements to meet the need to bind new acquisitions and undertake retrospective binding projects as necessary. It is also the responsibility of the preservation librarian to make a case for higher per-unit costs if the quality differential is significant.

The available turnkey computer systems for binding preparation streamline processing, reduce paper files, improve accuracy, and enhance reporting and data management capabilities. To take advantage of technological advances and savings in staff time will require that the library purchase computers, printers, and software. In some cases linking computers through local area networks greatly enhances efficiency.

Developmental Phases

- The library's commercial library binding program is assessed by the preservation librarian, who develops plans for improving it as needed. This may include moving the program from another department into preservation if such a shift has not already taken place.
- Budget and staff allocations are studied, and recommendations for change are presented to the library administration for consideration.
- The library's preservation concerns related to library binding are communicated to the library binder. A relationship between library and binder is established at the professional level, to supplement traditional work-flow oriented lines of communication.
- New or revised binding specifications are developed, either as part of a formal bid proposal where legal contracts are operative, or to serve as a written statement of agreement between library and binder.
- The binding program is monitored on a regular basis to ensure that it meets the needs of users and the collections, and is updated as appropriate.
1. Organization and Staffing Model for a Mature Preservation Program

ARL Library under 2 million volumes

- Preservation Librarian
- Binding and Shelf Preparation
  - Binding Supervisor
  - Collections Conservator
  - Preservation Replacement
- Conservation
- Bibliographic Assistant

2. Organization and Staffing Model for a Mature Preservation Program

ARL Library 2 to 3 million volumes

- Preservation Librarian
- Binding and Shelf Preparation
  - Binding Supervisor
  - Collections Conservator
  - Preservation Replacement
- Conservation
- Chief Conservator
- Bibliographic Assistant

Personnel: 8.5 FTE (2 professionals)
Budget: $2.7 million
% of total Library Expenditures: 5.10%
% of total Materials Expenditures: 15.30%

1. Includes traditional binding and shelf preparation activities, but excludes personnel needed for preparation for mass deacidification
2. Excludes staffing for externally-funded microfilming projects. Assumes both microfilming and preservation photocopying are contracted
3. Paraprofessional positions could be filled with a combination of support staff and student assistants to equal 1 FTE

- Preservation Review Librarian

Personnel: 13.5-20.5 FTE (3.5-4.5 professional)
Budget: $4.8 million
% of total Library Expenditures: 5.10%
% of total Materials Expenditures: 15.30%

1. Includes traditional binding and shelf preparation activities, but excludes personnel needed for preparation for mass deacidification
2. Excludes staffing for externally-funded microfilming projects. Assumes both microfilming and preservation photocopying are contracted
3. In some libraries this position may serve as the assistant head and the bibliographic assistant and cataloger may be part of technical services
4. Paraprofessional positions could be filled with a combination of support staff and student assistants to equal 1 FTE
5. A second Conservator may be needed depending upon the nature of special collections
Organization and Staffing Model for a Mature Preservation Program

ARL Library 3 to 5 million volumes

Preservation

- Preservation Librarian
- 5 Staff Assistants
- Binding and Shelf Preparation
- Conservation
- Preservation Replacement
- Chief Conservator
- 1 - 2 Conservators
- 4 - 8 Conservation Technicians
- Preservation Review Librarian
- 1 - 2 Catalogers
- 1 - 2 Bibliographic Assistants
- 1 - 2 Preparation Assistants

Budget: $5 - $11 million
% of total Library Expenditures: 5-10%
% of total Materials Expenditures: 15-30%

- Includes traditional binding and shelf preparation activities, but excludes personnel needed for preservation for mass deacidification.
- Includes staffing for externally funded microfilming projects. Assumes both microfilming and preservation photocopying as contracted.
- In some libraries this position may serve as the assistant head and the bibliographic, assistants and catalogers may be part of technical service.
- Paraprofessional positions could be filled with a combination of support staff and student assistants to equal FTE.

Organization and Staffing Model for a Mature Preservation Program

ARL Library over 5 million volumes

Preservation

- Associate/Assistant Director for Preservation
- Staff Assistant
- Binding and Shelf Preparation
- Conservation
- Preservation Replacement
- Chief Conservator
- 2 - 3 Conservators
- 7 - 10 Conservation Technicians
- Preservation Review Librarian
- 1 - 2 Catalogers
- 2 - 3 Bibliographic Assistants
- 2 - 3 Preparation Assistants
- Photoduplication

Budget: $8 - $13 million
% of total Library Expenditures: 5-10%
% of total Materials Expenditures: 15-30%

- Includes traditional binding and shelf preparation activities, but excludes personnel needed for preservation for mass deacidification.
- Includes staffing for externally funded microfilming projects. Without a Photoduplication unit, microfilming and preservation photocopying would be contracted out.
- A Photoduplication unit is often associated with preservation and would typically handle microfilming and photocopying in addition to some public service functions.
- In some libraries this position may serve as the assistant head. Cataloging may be done in the Cataloging Dept.
- Paraprofessional positions could be filled with a combination of support staff and student assistants to equal FTE.
Appendix I.
Three Sample Decision Trees

Sample 1. Decision Tree for Determining Whether to Bind

1. Is the paper brittle? (yes/no)
   - yes: selectors and subject specialists
   - no: Does the volume appear to have artifactual value, based on established guidelines and other visual and historical clues? (yes/no)
     - yes: Should the item be treated in-house, based on its nature and condition and on in-house capabilities? (yes/no)
       - yes: conservator/repair staff
       - no: Should the item receive preparatory conservation treatment in-house before being sent to the commercial bindery? (yes/no)
         - yes: conservator/repair staff
         - no: commercial library bindery
   - no: Should the item receive preparatory conservation treatment in-house before being sent to the commercial bindery? (yes/no)
     - yes: conservator/repair staff
     - no: commercial library bindery
Sample 2. Decision Tree for Binding Monographs

Is the text block sewn (either through the fold, oversewn, or side sewn\(^1\)) rather than adhesive bound, is the original sewing intact, and is the number of stitches adequate for the size of the volume?

- yes → recase
- no →

Is the text block made up of separate signatures (that is, a group of unattached signatures), and are the folds of the signatures intact? This is the case when a monograph has been disbound and the folds of the signatures repaired. Because such preparation is labor intensive, it is reserved for exceptional volumes.

- yes → sew through the fold
- no →

Is the text block 2" thick or less?

- yes → Double-fan adhesive bind
- no →

Is the text block more than 2" thick and does it have margins that are at least 5/8" wide?

- yes → oversee
- no → Split the text block, alter bibliographic records, and double-fan adhesive bind each part; double-fan adhesive bind the text block as is\(^2\); or box.

\(^{1}\) Occasionally oversewn and side-sewn volumes must be rebound because their cases have worn out or been damaged. If the volumes open well and have adequate margins, recase; if they open poorly, cut away the sewing structure and double-fan adhesive bind to improve functional characteristics.

\(^{2}\) Double-fan adhesive binding is usually reserved for volumes no more than 2" thick, but in cases where a text block is thicker and oversewing is not possible because of narrow binding margins, double-fan adhesive bind as the binding option of last resort. If the job is well done, the volume is likely to be durable. To ensure optimal openability and durability, whenever possible limit the size of text blocks to 2" thick or less, regardless of the width of the binding margins.

Some options for cost savings are to:
reserve recasing for volumes that cannot be double-fan adhesive bound because milling the spine would damage fragile paper, remove already-narrow binding margins, or cut away plates that bleed to the inner edges of pages. Using these criteria, the majority of volumes that are potential candidates for recasing would be double-fan adhesive bound instead, with a resulting cost saving.
economy bind volumes 5/8" thick or less (see Appendix III, Non-Standard Library Binding).
Sample 3. Decision Tree for Binding Serials

Is the text block made up of separate signatures (that is, a group of unattached signatures) and are the folds of the signatures intact? Several issues of *Newsweek* are a typical example of this type of configuration. Folds can usually be repaired in-house or at the bindery.

Is the text block 2" thick or less?

Is the text block more than 2" thick, and does it have binding margins that are at least 5/8" wide?

To ensure optimal openability and durability, whenever possible limit the size of text blocks to 2" thick or less, regardless of the width of binding margins.

An option for cost savings is to reserve sewing through the fold for volumes that cannot be double-fan adhesive bound because milling the spine would damage fragile paper, remove already-narrow binding margins, or cut away plates that bleed to the inner edges of pages. Using these criteria, some volumes that are potential candidates for sewing through the fold would be double-fan adhesive bound instead, with a resulting cost saving.
Appendix II.
Inspecting Library Bound Volumes

1. Inspect the unopened volume

Spine stamping: Is the spine lettered correctly? If there appears to be an error, was it made by the library or the binder? Are lines of lettering properly positioned? They should be parallel or perpendicular to the spine of the volume—not crooked, and horizontal lettering should not wrap onto the front or back boards of the case. Are letters evenly impressed and crisp?

Covering material: Is the covering material clean and free from dust and gluey fingerprints? Is it smoothly and completely adhered to both boards? Is the cloth free from large knots and scars?

Joints: Are the joints (the grooves on either side of the spine) parallel to the spine and uniformly and adequately deep?

Rounding and backing: The LBI Standard specifies exceptions to rounding and backing. Have these exceptions been made? In cases where the volume has been rounded and backed, is the spine of the text block properly shaped at both the head and tail (see illustration 65)?

Squares: Are the squares (that is, the edges of the boards that extend beyond the text block at the head, fore edge, and tail) even, and an acceptable width (1/16" to 3/16")? Uneven squares may be a sign that the text block is not cased in tightly against the spine of the case. If the text block is left untrimmed, however, either in accordance with the library's specifications or to avoid cutting away text or illustrations, squares may be unavoidably irregular. If flush binding has been specified (that is, if the volume is bound flush with the bottom of the case), there should be little or no square at the tail of the volume.

Edges of the text block: Are the edges of the text block free from adhesive so that pages fan without restriction? If trimming has been specified by the library, are there major scratches and gouges across the edges of the text block, which would indicate deep nicks in the binder's guillotine blade? Is there any evidence of printing ink that suggests
that text has been trimmed away? (If yes, inspect the text block to determine whether there is damage and whether it is significant.) If the library has specified that the edges of the text be left untrimmed, have instructions been followed?

2. Open the volume to its approximate center; look down the hollow that forms between the spine of the text block and the spine of the case.

Spine lining on volumes that have been double-fan adhesive bound according to the LBI Standard: Are there two spine linings (stretchable fabric that extends the full height of the text block from head to tail and a cotton cloth lining that extends to within 1/2 inch of the head and tail of the spine)?

Spine lining on all other volumes that have been bound according to the LBI Standard: Is there a cotton cloth lining that extends to within 1/2 inch of the head and tail of the spine?

Spine lining on volumes that have been recased according to the LBI Standard: Does the spine appear to have been well cleaned before lining? There should be no evidence of the publisher's cloth or paper spine lining. If publisher's adhesive remains, it should be tightly adhered to the spine of the text block—not cracking away.

Spine lining on non-standard bindings: Have the specifications agreed upon by the library and the bindery been followed regarding spine lining? For example, economy style double-fan adhesive-bound volumes typically have only a stretchable-fabric spine lining, which extends the full height of the text block from head to tail.

3. Open the front cover, then the back cover, and inspect the inside surface of each board.

Endpapers: Are the endpapers smoothly and completely adhered to the boards? Are the edges of the endpapers smooth and cut straight? On selected volumes, grasp the head of one board with one hand and the tail with the other, and flex the board gently back and forth perpendicular to the spine. If endpapers are not properly adhered, bubbles will appear between endpaper and board.

Turn-ins: Are the turn-ins (the margins of cloth that wrap from the front of the boards onto the inside) uniform and approximately 5/8-inch wide? Are the edges of the cloth smooth and cut straight?

Spine lining: Does the spine lining extend onto each board at least 1 inch? Is it uniformly wide, head to tail, on each board?

4. Leaf through the text block; check volume against instructions to the binder.
Special instructions: Have all instructions to the binder been followed, including specifications such as color of covering material, method of leaf attachment (if an option has been specified), flush binding, mounting or binding in covers, and constructing a pocket?

Endpapers: Is the style of endpaper appropriate for the method of leaf attachment used? Have endpapers been attached according to specifications in the LBI Standard?

Binding margin between endpapers and text block: Check the volume between the endpapers and the first leaf of the text block, and between the endpapers and last leaf of the text block. For text blocks that have been double-fan adhesive bound, are the endpapers tipped no more than 1/4 inch onto the adjoining leaf? (Note that if paperback covers and paper covers from serials are bound in, adhesive will inevitably seep to a depth of more than 1/4 inch in some cases. The stiffer the cover, the more likely this is to happen.) For text blocks that have been recased, are the binding margins between endpapers and the first and last leaves neat and free from the residue of old spine lining?

Text block: Is the text block properly oriented in the case (that is, is it right-side-up)? Are all leaves securely attached? Are leaves and serial issues in correct order? Have all paper repairs been made neatly and with appropriate materials? (If the library has a policy for making all repairs in-house, have paper tears been noted by the binder?) Has text near the binding margin been obscured by sewing, notching, or adhesive? Has text or have the folds of folded leaves been trimmed away?

5. Determine whether the volume opens well and lies flat.

Ideally, all volumes should open well and lie flat. Most will, if an appropriate method of leaf attachment is chosen by the library or the binder. Stiff papers, however, create problems that sometimes cannot be compensated for by good decision making and technique. Papers may be stiff because they are thick, heavily coated or sized, laminated, or oriented in the volume such that the grain direction is perpendicular, rather than parallel, to the spine.

If a high percentage of volumes do not open well and lie flat, reevaluate the methods of leaf attachment specified by the library or the bindery, taking into consideration the problem of paper stiffness.
COOPERATION...STANDARDS...COMMUNICATION...are focal points of this brief history of The Library Binding Institute written by Brian J. Mulhern. Mulhern (BA in history and English, Carleton College, Northfield, Minnesota, and an MA in American Studies, University of Minnesota) is an archivist and writer who worked part time for LBI for several months. He began organizing the old LBI files and setting up the archives.

When the New Deal organized American industry under the National Recovery Act (NRA) in 1934, library bookbinders began a cooperative program to insure standards of quality and fair dealing that has continued for fifty years. Library bookbinding in 1934 was a considerably different affair than it is currently. A host of small shops dominated an industry with very few "giants" and no consistent definition of what it was that was being sold as "library binding." Individual binders dealt with individual librarians without the benefit of broader consultation about standards and prices for their services. Cost accounting varied tremendously across the industry, making pricing of bindery services exceedingly difficult. Wide variations in labor practices further destabilized a market already hard-hit by the Depression.

**Barr is influential in creating LBI**

Into this scene came the faceless federal bureaucracy of the NRA National Code Authority - with a difference in the person of Pelham Barr. Barr had started his professional life as a chemist, politically active and committed to the goals of the New Deal. With the inauguration of the NRA in February 1934, a Book Manufacturing Institute was established, and Barr was appointed Divisional Director for Library Binding. He immediately set about applying Code provisions for self-government, labor standards, and fair competition across the industry. By November of that year, Barr was planning to extend his duties to include promotional activities for the industry as a whole, undertaken at the expense of divisional member binders.

These activities won the enthusiastic support of the depression-stricken industry. When the NRA was declared
unconstitutional in May 1935, members of the previously involuntary federal program voluntarily resolved to continue the program on an independent basis with Barr at its head. At the hour of decision, Barr enthusiastically anticipated the binders' choices:

Library binders all over the country are continuing to do business "as was" before the decision. They realize that it is the only safe and sane way to do it. They didn't have to be told that it would be plain damn-foolishness--suicide--to try to go back to the old days when some of their competitors indulged in price-wars, quality chiselling and labor sweating...Here's one case where cooperation and selfishness are identical--broad vision is right at the end of the pocket-book nerve.

**Joint Committee Plays Major Role**

Even before the group became an independent entity, a program of cooperation had been undertaken with the American Library Association's Bookbinding Committee founded in 1933. In January 1935, three binders were delegated to meet with the ALA in what subsequently became known as "the Joint Committee." Cooperation with librarians became a keystone of the new organization's policy. The Joint Committee consulted on virtually all facets of the LBI program. It played a major role in shaping binders' "Guide to Fair Value," (1934), their "Minimum Specifications for Class 'A' Library Binding" (June 1934, revised June, 1938) and their "Certification Plan" (1936). For twenty years following LBI's first annual meeting in 1936, its annual get-togethers were planned to coincide in a joint session with the annual meeting of the ALA.

The relationship with the ALA focused LBI's public relations effort on the Library Journal, and for years Pelham Barr provided the Journal with a steady stream of contributions interpreting bindery services and activities. After September 1939, the Institute launched a publication of its own, BookLife, specifically directed at bibliophiles and persons interested in book conservation, another early concern of the bindery group. Barr particularly excelled at these public relations efforts, and he valued them so highly that he donated a portion of his own 1939 salary raise so that his long-standing dream of such a publication might become a reality. LBI's first director also contributed to a wider spectrum of publications, including Bookbinding Magazine, College and Research Libraries, and Bookbinding and Book Production, as well as generating a steady stream of informal and entertaining communications with LBI-members and other interested people. From the first, open communications have played a central role in the affairs of the bindery group.
Gathering statistical information was important

Information flowed in both directions from the earliest days of LBI. An important function of the Institute was the collection of statistical information regarding the industry: its volume, its suppliers, its income, and its expenditures. Annual surveys were made of such information, and occasional special surveys were held regarding issues of widespread interest. Reciprocally survey findings were shared with members to assist them in planning and evaluating their own operations; and the Institute also served occasionally as a conduit for statistical data compiled by the federal government regarding the binding industry.

To be sure, services to members were not purely statistical. LBI organized members to resist incursions of New Deal work-projects on the binding trade. It disseminated preservation information to members hard-hit by a series of disastrous floods in the late 1930s. With the coming of war in 1941, it kept members posted on coping with shortages of bindery materials, brought on by war-time conditions.

Over the years it interpreted for members a host of new federal regulations and legislation. Regular newsletters to members appeared as early as 1935, and LBI annual meetings began in 1936, featuring management and technical sessions to upgrade members skills in business and production procedures. Given the range of services to members, it is surprising that the fledgling group was able to maintain relatively low dues and to stay within a modest budget in the midst of a lengthy business recession that cut heavily into members' incomes. But the industry stalwartly supported its trade association, which in turn responded with some flexibility to the financial plight of individual members. Balanced budgets were to become a tradition in succeeding years. Together, the industry weathered the most harrowing business downturn in American history.

Prices and Products Standardized

Meanwhile they went about systematizing their mode of doing business. To stabilize binding prices, they developed a "Guide of Fair Value for Library Binding" while still under NRA jurisdiction. The guide was approved by the Joint Committee and ratified by the newly independent Institute after it formed. Periodic revisions in May 1937, October 1941, December 1943, August 1945, July 1946, and January 1949 attempted to keep pace with inflation in binders' production and personnel costs. In the words of the first announcement for the guide:
The approval of the Guide of Fair Value and of the Minimum Specifications is an important element in the cooperative program of the Joint Committee to develop sound relations between librarians and binders—to put transactions on a basis of fair dealing and fair competition; to assure librarians of a good quality binding at a fair price which will enable the binder to use standard quality materials, give good workmanship and pay his employees fair wages.

Besides standardizing their prices, binders sought to standardize their products. Initially, product standardization took the form of production specifications enumerating various features of the binding process that were deemed to constitute binding particularly suited for library use. The first "Minimum Specifications for Class 'A' Library Binding" were formulated by the ALA Bookbinding Committee in 1934 as the culmination of a consensus emerging in the trade since at least 1923. The Joint Committee ratified this consensus in 1935 and revised it in 1938, chiefly to accommodate the growing use of pyroxylin-impregnated fabrics in library binding. The original specifications referred to books and magazines. By January 1938, the group had adapted its standard to the binding of newspapers. The following year it issued specifications to govern the binding of "reinforced (pre-library-bound) new books."

To reinforce the legitimacy of these standards LBI issued a certification plan in 1936 for binders who demonstrated work in conformity to both the minimum specifications and the guide to fair dealing. At least initially certification was not made a prerequisite for membership in the association. A July 1936 letter from Pelham Barr reassured non-certified members that their membership was not in jeopardy under the new certification plan, and this dispensation apparently prevailed for several years thereafter. A board of review was convened in connection with the plan to monitor applications for certified status.

**LBI supplies technical advice to members**

LBI began early to offer members technical advice in order to help them conform to the prescribed specifications. Pyroxylin was evaluated in 1936. Buckram was repeatedly tested for resistance to moisture and abrasion by the early 1940s. Beginning in 1936, both members and librarians were advised on precautions regarding mildew. A series of bulletins issued in 1941-1942 advised members on how to meet production standards in the midst of war-time supply shortages. Such piecemeal tinkering with production specifications would continue until the early 1960s when heightened technical capabilities made possible the development of performance standards to supplement these production specifications.
Since that time Institute standards have been defined increasingly in terms of durability under a wide variety of environmental conditions. Empirical testing has yielded a progressively more sophisticated specification of library binding. The 1976 inauguration of an LBI book-casting laboratory at the Rochester Institute of Technology (RIT) is merely the most recent phase in the binders' effort to refine and certify the standard of quality in their field.

The standards program, along with membership services, and a concerted public relations campaign with librarians define the earliest phase of LBI's existence, roughly coterminal with the directorship of Pelham Barr. Barr tirelessly pursued these efforts until his health broke down in 1947, and he died early in the following year.

Browning becomes Executive Director

Binders next turned to a librarian, Earl W. Browning, to head their organization. Browning, formerly of the Peoria Public Library, had been a member of the Joint Committee during its earliest years, 1934-1937. His administrative skills, contacts with librarians, and long-standing interest in library bookbinding particularly recommended him to LBI directors seeking a new leader.

In fact, Browning's tenure as LBI Executive Director appears in retrospect as little more than an interregnum. Within four and one-half years of becoming LBI director in April 1948, Browning had resigned. While director, he concentrated his energies on representing librarians' interest in library bookbinding. Browning's program for membership I.D. cards and the use of LBI insignia in advertising were calculated to assist librarians searching for quality binding. He dispensed with restrictions barring librarians from the technical sessions at LBI annual meetings. Technicalities subsequently discussed tended more to benefit librarians than binders in attendance at the meeting. Browning enthusiastically toured the circuit of library meetings with his exhibit on the use of standardized lettering in binding, and he filled LBI newsletters with reports of his attendance at such gatherings. A major publication of the Browning years, the Library Binding Manual (1951), was actually published by the American Library Association and addressed itself chiefly to a library audience. It constituted a sort of primer for buyers of library binding. Originally co-authored by Louis N. Feipel and Earl W. Browning, the manual was revised and expanded over the years, culminating in Maurice Tauber's 1971 revision published by LBI.
Other significant publications of the Browning years were more geared to the needs of LBI-member binders. During 1951-1952, legal memoranda on wage and salary stabilization equipped members to comply with the Defense Production Act of 1950, inspired by the outbreak of hostilities in Korea. These memoranda reflect the growing importance to the organization of a legal acumen beyond the ken of Browning, and he resigned and moved to California in September 1952, following the death of his wife.

**Weiss begins 30-year term as LBI Executive**

Browning was succeeded by Dudley A. Weiss, who was to head LBI for nearly thirty years thereafter. Weiss had come to the organization in 1951 as legal counsel when a government investigation threatened the association with a civil suit. As attorney for F.J. Barnard and Company, Weiss was very familiar with the industry, and his legal skills were a boon to binders beset by a plethora of legal anxieties. By January 1952, Weiss was representing the association in Washington before the US Bureau of Standards, the Federal Trade Commission, the Office of Price Stabilization, and the Government Printing Office. To consolidate LBI specifications he sought to have them promulgated as a U.S. Commercial Standard. Hearings were held in 1953-1954, culminating in the promulgation of Proposed Trade Practice Regulations for the Library Binding Industry. Weiss obtained exemption from Korean War-inspired price-stabilization measures for binders, and he sought to attenuate requirements that all binding for federal agencies be done by the U.S. Government Printing Office.

**THE LIBRARY BINDER begun in 1952**

Weiss also resumed an active program of membership services. Conventions again featured technical sessions designed primarily to benefit library binders. After the ALA abolished the Joint Committee in 1955, these sessions evolved toward a management-practices focus that increasingly came to characterize the association as a whole. Previously irregular newsletters were published on a more regular basis. In October 1952, there appeared on the scene a new publication aimed primarily at LBI members, THE LIBRARY BINDER. It featured association news, with attention to the personalities as well as the issues of the industry.

**Relationships with librarians deteriorate**

As relationships with members improved, LBI's dealings with librarians seemed to deteriorate. The move to establish LBI specifications as a U.S. Commercial Standard progressed rapidly initially—only to founder on ALA objections that it
failed to provide for lesser-used library materials. When Weiss, despairing for the prospects of a commercial standard, turned to the American Standards Association in 1958-1959 to further legitimate the LBI Specifications, ALA opposition once again blocked binders' interests.

The program of joint consultation with the ALA through the Joint Committee had broken down in 1954-1955, and it was unilaterally abrogated by the ALA Council in February 1955. Librarians had been concerned that the library members on the Joint Committee duplicated the activities of the ALA Committee on Bookbinding, and that they were subservient to binders' interests. No subsequent formal liaison was instituted for nearly a year; when the Committee on Library Binding eventually emerged, it included only a single bindery representative on a committee of six. As a result, binders turned their sights to representation among the growing number of special library groups. LBI continued to maintain informal ties and some joint activities with the ALA, but the old reciprocity and closeness with librarians was not to be resumed. One reflection of this situation was the 1956 decision to end the joint session with librarians that had characterized annual meetings for twenty years. Though rationalized as a response to the "inordinate expense" of maintaining joint sessions, one more symbol of joint activity disappeared from the binding scene.

Ambitious publication program directed to librarians

To some extent, LBI replaced these old mechanisms of cooperation with an ambitious new publications program directed primarily at librarians. A 1955 publication advised victims of summer floods on the care of water-damaged books. Brochures first issued in 1959 sought library memberships in LBI, explained the values of LBI certification, listed LBI-member binderies, and answered frequently asked questions about library bookbinding. These brochures were periodically updated for fifteen years. Bookbinders anticipated librarians' concerns about conservation with a 1961 pamphlet that stressed their common interests. The pamphlet was entitled, "The Business of Librarians: The Maintenance of Materials." Library binding was particularly recommended in order to maximize librarians' purchasing power amid the growing availability of federal funds for libraries during the early 1960s.

The Library Binding Manual, first issued in 1951, was primarily addressed to librarians with tips on maintenance, advice on how to examine a library binding, and other useful information for patrons of library binders' services. A 1963 revised edition, dubbed "The Handbook for Library Binding" was again updated in 1971, the same year that an expanded Manual was issued under the editorship of Professor Maurice Tauber of Columbia University.
Membership Services expanded

The ambitious LBI publishing program for librarians was paralleled by an expanded program of membership services, beginning in the 1960s. Outstanding among these services was the work of the LBI Management Practices Committee, first convened in 1953. By 1959, the committee was conducting annual wage-data surveys of industry practice. More sophisticated analysis of bindery expenses began in 1965 with "Operational Productivity Surveys" (OPS) that broke down the bindery operation into a series of constituent procedures, each of which was analyzed for cost efficiency and productivity. The Institute encouraged individual members to evaluate the productivity of their own procedures with reference to these OPS management norms, which it continued to issue through August 1980.

LBI conventions continued to provide members with management practices presentations on an annual basis, and five special Management Practices Workshops were held annually between 1963 and 1968. Guidelines for a management audit, developed for these sessions, went through five editions between 1966 and 1975. In 1970 a new Technology Committee was convened to provide members with the latest information on testing of supplies and procedures for library binding. A directory was compiled of suppliers and manufacturers in the industry, and the committee served as a clearinghouse for the exchange of used bindery machinery. William H. Foley was appointed LBI Director of Technology and Quality Control in 1972, signalling the growing importance of these functions in the LBI program. And in 1976 a Management Manual was issued to incorporate the findings of both management practices and technology committee publications.

Book testing lab opened

By 1976 the level of technical sophistication required to test the performance of a library binding and its constituent materials had increased to such an extent that binders required a facility specifically devoted to that purpose. In September of that year, with funds subscribed by member binders, LBI opened a book testing laboratory at the Rochester Institute of Technology, an internationally acclaimed center for expertise in printing and graphic arts. RIT professor Werner Rebsamen became director of the facility and LBI Technical Consultant. In 1983 the RIT facility was enhanced with a major gift from the Frank M. Barnard Foundation. The grant permitted purchase of The Barnard C. Middleton Collection of books and bindery implements -- a major resource for studying the history of fine binding throughout the world. It joined the rich bibliographic resources of RIT's Melbert B. Cary Graphic Arts Collection, yet another focus for a growing bindery industry.
Meanwhile, growing sophistication of other methods of management practice was reflected in the 1979 publication, *Ratio Study*. Even librarians were included in the statistical refinement of LBI management surveys. For instance, the 1980 preservation survey exhibited the new methodological sophistication applied to a longstanding area of LBI technical concern.

**PR program is multi-faceted**

The Institute audio-visual program, aimed at both librarians and binders, focused on a wide range of modern bindery services. The 1959 movie, "The Art That Binds," and a parallel slide presentation by the same name presented bindery operations visually. Meanwhile, another movie, "From Babylon to Bibliothèque" (1965), explored the history of bookmaking and bindery operations over several millennia. A 1977 production, "Binding the Past for the Future," explored the themes of "The Art that Binds" with a new emphasis on book conservation.

Audio-visuals were just a part of LBI's enhanced public relations efforts, which also included two awards issued annually by the Institute between 1958 and 1975. The LBI Scholarship, which was awarded to an outstanding library student interested in studying bindery problems, was administered by the American Library Association between 1964 and 1975. LBI's Silver Book Award annually recognized between one and five individuals for their contributions to library services. Although librarians also predominated among recipients of this award, a significant number of binders and suppliers also received Silver Book Awards between 1958 and 1974. Both awards fell prey to the financial contraction that hit the industry in the early 1970s and also resulted in the abandonment of the LBI poster program in 1973. For twenty years after 1953 the Institute had issued an annual poster promoting library use in the hope that increased library use would result in increased business for library binders. Colorful and graphically arresting, LBI posters symbolized binders' continuing commitment to America's libraries.

In 1952 LBI launched a quarterly house-organ, THE LIBRARY BINDER, initially directed primarily at binders. Increasingly, however, it began to cater to librarians as well. With a change in format in June 1968, the publication regularly featured stories on prominent individuals and schools in the library world, while continuing to cover bindery affairs. The trend became even more pronounced in 1972, when the magazine increased in size and changed its name to THE LIBRARY SCENE. Book preservation, a prominent concern of librarians, received increasing coverage as the years progressed. Towards the end of the 1970s, the periodical began to integrate its appeals to librarians with its earlier features on personalities and facilities in the
industry. Budgetary constraints resulted in a rather erratic publication schedule, and eventually LBI decided to curtail the size of the serial and to interject more technical discussion of bindery procedures, aimed primarily at binders, suppliers, and book manufacturers. In 1982 the briefer, bi-monthly NEW LIBRARY SCENE emerged, encompassing these more varied publications objectives.

As the association moved into the 1980s it sought increasingly to encompass all the functions that had characterized its earlier history. An era came to a close with the retirement of Dudley A. Weiss as LBI Executive Director in January 1982. He was succeeded by Albert Leitschuh, who moved the Institute to Wayzata, Minnesota in November 1983. Leistchuh brought LBI new skills in association management, but he left the group little more than a year later.

The association entered its fiftieth year with a new Executive Director and a resolution to join its Book Testing Laboratory in Rochester, New York. Sally Grauer, the new LBI executive, had joined the organization's staff as Director of Communications in January 1984. In May 1985 she moved the group to the Rochester Institute of Technology, joining the trade association with RIT's dynamic concentration of resources relating to the bindery industry in America.
A Multi-Product Standard — Rx for Fair Competition

by Paul A. Parisi
President, Acme Bookbinding
Charlestown, MA

The Open Forum column in The New Library Scene (TNLS) was created to spark debate of controversial issues. As the Library Binding Institute (LBI) takes on the challenge of revising the Library Binding Institute Standard for Library Binding, it is not surprising that Open Forum will host opposing viewpoints. Articles that I have written in this magazine have plainly laid out my position on the need to revise the Standard to include the mainstream products that most library binders produce. Jack Fairfield’s December 1992 response to my October 1992 article, “Library Binding—Much More Than ‘Class A’” raises some interesting points to which I would like to respond.

A single product (with options) is specified in the 1986 LBI Standard. Most binders manufacture products that meet the specifications of the LBI Standard and other products that are non-standard (in response to customer needs). Other binders offer a single product that “does not match the current LBI Standard,” but claim that it “exceeds the Standard.” This state of affairs makes it very difficult for librarians to make informed buying decisions. The Library Binding Institute cannot allow such confusion to persist.

In his Open Forum article, Jack argues against changing the LBI Standard before the results are in from the National Information Standards Organization (NISO) testing. Mr. Fairfield states that we need “A Performance Standard, Not A ‘Fast Track’ Standard.” I agree that a performance standard is desirable. Along with Jack, I am a member of the NISO committee to develop such a standard. Although Jack is hopeful that the process will move along quickly, it will certainly be a few years before testing is complete.

The main problem with the current LBI Standard is that it does not promote fairness in competition. While librarians wrestle with the various claims of binders regarding their products, they sometimes unwittingly face apples-to-oranges comparisons. One of the primary benefits of an industry standard is to establish a flat playing field. Clearly defined products make possible an objective comparison by the customer. and fair
competition by binders. Lacking this structure, confusion reigns when library binding contracts are put out for bid. Binders are uncertain whether purchasing agents will accept a non-standard product that is less expensive to manufacture, as a substitute for the Standard product described in the contract.

To illustrate the dilemma, I'd like to examine a typical scenario. In a contract, a library describes an LBI Standard product. Binder A bids a price based upon intent to meet the contract specification of LBI Standard binding. Binder B bids lower, based upon intent to produce a product that differs from the Standard, and is less costly to manufacture. As low bidder, Binder B is awarded the contract. The library does not get the product that was specified in the contract. Binder A has lost the bid by costing out the product exactly as specified in the contract.

Besides economy-bound paperbacks, the most commonly offered non-standard binding is flat backed: with double-fan adhesive binding volumes single (rather than double) lined. I believe that the LBI Standard specifies the best possible library binding — that many volumes are greatly improved by rounding and backing, and that good spine lining is the cornerstone of a well-bound volume.

My reasons:

1. Putting aside the aesthetic appeal of a properly rounded and backed book, there are many functional reasons that justify the expense of this operation. Well-lined, rounded and backed volumes will retain their shape despite repeated circulation and long-term storage. Volumes that are left flat backed will quickly become concave. Their spines may crease vertically down the center, and the text block may protrude forward of the boards at the fore edge. These problems are more pronounced for thicker volumes. To appreciate my point, take a walk through the stacks in your library and inspect the volumes that sit on the shelves. I believe that you will see a marked difference in the condition of rounded and backed volumes compared to volumes that were left flat backed. If your library has switched from LBI Standard products to non-standard products for some or all of your collection, I think that you will find that many of the older volumes that were bound ac-

cording to the LBI Standard are in better condition than the newer volumes that are non-standard.

2. Another benefit of rounding and backing is more subtle and requires that you bind two identical books by both methods to appreciate the difference. Rounding and backing creates a slight score 1/8 inch from the binding edge that helps volumes open and lie flat. Particularly volumes printed on cross-grain paper (paper with the grain running perpendicular to the binding edge).

3. Consider your experience with publishers' bindings. I think we can safely agree that the publishers' binders are willing to go to great extremes to reduce cost. Why then have they not completely discontinued the practice of rounding and backing? Perhaps because binders worldwide agree that rounding and backing enhances the structural integrity of many volumes. (The LBI Standard lists volumes that should not be rounded and backed. Although I feel that that list should be expanded, in general, its recommendations are sound.) When publishers' binders do leave volumes flat backed, they usually use a stiff board spine strip between the two cover boards, rather than a flexible inlay, in an attempt to reduce the inevitable deformation of a flat spine.

4. The LBI Standard specifies that volumes that are double-fan adhesive bound should have a second cloth spine lining applied after rounding and backing. Furthermore, it specifies that all volumes sewn through the fold (over 1-1/2 inches thick) and all thick or heavy volumes should have an additional layer of 60 pound alkaline paper or a second cloth spine lining to reinforce the spine. The sturdy spine linings that are specified in the LBI Standard are one of the primary reasons that library bindings outperform publishers' bindings. The spine lining helps the text block retain its shape (whether it be rounded and backed or left flat backed), and it provides the primary linkage between the text block and the case that protects the text block.

The research that will be done as part of NISO Standards-setting will support, modify or change my opinion. Without question, there are reasons why libraries may sometimes require non-standard bindings as well as LBI Standard bindings, and I am among the many binders who is willing to provide a full range of products. Customers need to know, however, exactly what their options are, and how options affect manufacturing costs — and to reflect this knowledge in their contract. Then, binders can once again bid apples-to-apples instead of apples-to-oranges.
Methods of Affixing Leaves: Options and Implications
by Paul A. Parisi, President, Acme Bookbinding Co., Inc.

Introduction
For many years, oversewing has been called the cornerstone of library binding. Oversewing does provide an extremely strong, durable, and relatively economical method of leaf attachment. In fact, since oversewing has been recognized as the strongest method of affixing leaves, it is not surprising that many library binders have chosen oversewing as their preferred method of leaf attachment.

It is unreasonable, however, for anyone to claim that oversewing is the best or only method of leaf attachment to be used in quality binding. The premise that strength and quality are synonymous loses validity if one recognizes that strength must be traded off against flexibility, to allow effective use of the book. This point is especially relevant when poor quality papers or narrow margins are involved.

This is not to say that oversewing is not a good choice. On the contrary, oversewing is an excellent method of leaf attachment, as long as the paper condition is good and the inner margin is adequate. The argument for oversewing is even more persuasive if the book is expected to circulate frequently.

The strength, assurance of secure attachment of all pages, and relative cost advantages of oversewing, as compared to other sewing techniques, will always assure that oversewing remains a necessary and significant option for both the library binder and the customer. The important question, though, is how much strength does one need and when is strength the first priority? It's important to note that the full assortment of leaf attachment techniques available must be utilized to solve the many binding problems we face. Machine sewing, centerfold sewing, and adhesive binding are several of the tools available to do the job.

Before Selecting a Binding Method
Prior to the selection of any binding method, each book should be screened thoroughly, taking into account the following factors:
1) paper quality
2) width of inner margin
3) presence of an acceptable sewing structure

4) format of the leaves (i.e., single sheets or folded sections).

Once this examination has been made, a leaf attachment method can be chosen that will not only allow the bound book to be read and copied comfortably, but will still leave it as strong as possible. Whether concerned with new books, rebinds, or periodicals, the customer and binder together must determine who is best qualified to assume the responsibility for this screening and clearly defined guidelines must be mutually agreed upon. Both parties need to consider the assets and liabilities of each option, including:
1) openability of the book
2) necessary spine loss
3) relative cost
4) ability to copy pages
5) strength of the resulting binding
6) options for rebinding.

In particular, the expected use of the book and the cost constraints imposed by the customer are major concerns which must be immediately identified so that a proper binding selection can be made.

Reviewing the Options
Let's look at eight different methods of leaf attachment: six sections involving sewing and two utilizing adhesives.

Oversewing

Options Using Sewing
1) One of the most familiar methods of leaf attachment is OVERSEWING. Machine oversewing was first introduced in 1920 and has since become the primary method of leaf attachment used by library binders. This method requires that each book be divided into small sections of individual pages or leaves. Often, this is accomplished by milling or cutting the spine of each book to remove the glue and original sewing. In some cases, a binder may elect to take a book apart by hand with a knife. This operation accomplishes the task of dividing the book into small sections (approximately 15-20 pages each) without loss of inner margins and generally results in an extra charge. Books requiring normal spine preparation on a milling machine lose up to 0.5 inch of their inner margin. Precautions must be taken to ensure that all books designated for oversewing have remaining inner margins after spine milling which equal or exceed 0.5 inch. After spine preparation, the books are ready for the oversewing process. Sections of the book are placed into the machine at a 45 degree angle and are then clamped. Vertical punches spaced 1 inch apart punch holes through the pages of each section. Threaded needles pass through the punched holes, enter through the spine, and exit the section approximately 1 inch in from the back edge of the page. Horizontal shuttle needles then pass through each of the separately formed thread loops and complete the stitch. The process is repeated to form successive lock stitches up the spine of the book.

Major Advantages of Oversewing:
- Versatility...any book up to a 15 inch height, unlimited width, and five inch thickness can be oversewn
- Strength...the lock stitch providing exceptional strength

Major Disadvantages of Oversewing:
- Perforation of pages inherent to the process can and will damage poor quality paper.
- Rebinding a book once oversewn necessitates either cutting off 0.5 inch from the spine or manually taking the sewing apart. This is rarely necessary because of breakdown of the sewing structure, but may be required for other reasons, such as book mutilation or insertion of missing issues with periodicals.

2) Another method of affixing leaves is SEWING THROUGH THE FOLD BY HAND. This technique has been used with great success for centuries and in few of any disadvantages, other than its relative cost. The process requires that the pages of the book to be sewn are in folded signature form. Hand sewing is accomplished by passing a threaded needle through a hole in the folded section of paper, starting from the outside (or back edge) of the signature...
The needle draws the thread along the fold, parallel to the spine, and passes it back out through another hole. After looping around a cord or tape, the needle passes back into the folded signature through yet another hole and the process is repeated until the full length of the spine is sewn. The beginning and end of each signature are tied off with a kettle stitch to attach the signature at hand to the one previously sewn. This entire process is repeated for each additional signature. The last section is the endsheet, which is comprised of two folded sheets with a cloth reinforcement strip at the fold of the outer sheet. The cloth reinforcing strip is usually attached only to the outside edge of the fold and extends ¼ inch beyond the fold. This free cloth extension can be tipped to the adjacent page of text; thereby providing a hinge between the text block and endsheet. After sewing, cords or tapes are cut off approximately 1 inch beyond each side of the spine and are glued down securely with adhesive. Sewing on tapes is preferable to sewing on cords. Tapes are external to the text block and allow the book to open completely flat. Cords are usually recessed within saw cuts in the spine of the volume, restricting the opening of the book (especially for thick signature books). When hand sewing, it is possible to have sections of pages that are comprised of single sheets, as well as folded signatures. These are sewn together through the side, similar to oversewing. The sewer can alternate within a single book between sewing through-the-fold and sewing through the side, as necessitated by the material at hand.

**Major Advantages of Sewing Through the Fold by Hand:**
- No spine milling is necessary.
- Completely flat opening, allowing both easy reading and copying of text that runs near or across the center fold.
- Only minimal spine damage is caused by hand sewing. The center fold attachment of pages results in minimal stress placed on the pages when reading. This method is considered gentle to the book and should lengthen its life.

**Major Disadvantages of Sewing Through the Fold by Hand:**
- It is a slow hand process that is unenviably expensive. As a result, cost-conscious customers cannot always justify hand sewing for all materials.
- Fewer and fewer books are printed in signature form, thereby eliminating this option from the range of potential leaf attachment alternatives.

3) Another method is **SEWING THROUGH THE FOLD BY MACHINE.**

The machine most commonly used in library binderies for centerfold sewing is the Smyth-National sewing machine. The Smyth-National is a modified edition bindery machine, which can better accommodate the wide variety of different materials processed in a library bindery each day. Its operation in many ways duplicates that of hand sewing, with the major difference being that the book is sewn with multiple sewing heads, simultaneously sewing each folded section. Rather than having a long series of continuous horizontal stitches through the fold of each section, there is an independent series of stitches formed within each signature and connected vertically between signatures.

**Major Advantages of Sewing Through the Fold by Machine:**
- Lower cost, relative to hand sewing.
- All other advantages of hand sewing apply.

**Major Disadvantages of Sewing Through the Fold by Machine:**
- Most machines have constraints not encountered when sewing by hand. For example, the machine cannot sew folded sections that are less than three folded sheets (or more than approximately ¼ inch thick.)
- No machine can sew a combination of single sheets and folded signatures.

4) The next method to be discussed is **RECASING.** This method is generally chosen for books where the original sewing remains intact and it usually applies only to books that are complete in one piece. After removing the original cover, the old backlining and the old glue, it is possible to inspect the sewing to determine if it is still sound. Proper spine preparation is essential. In publishers’ bindings, animal glues are often used on the spine because of their compatibility with high speed, automated binding processes. Unfortunately, animal glue becomes brittle with age and does not enhance the quality of the Smyth sewing that it is often used in conjunction with. After the spine has been cleaned, defects in the sewing (which were covered by the old glue and spine lining) become apparent. At this point, a book with unsound sewing would be remounted to one of the other leaf attachment work stations. Books that are sound have new endsheets attached, via one of several methods. First, there is the stab sewing process. New endsheets are sewn onto the text block by passing a threaded needle through the tab of an oversewn endsheet, then through the book, at approximately a 45 degree angle. The needle then passes back through the spine and out through the endsheet. This process is repeated down the length of the spine and back again so that the stitch can be tied off. An attempt should be made to vary the angle of penetration and the exit and entrance locations along the spine, so as to reduce the stress to any one part of the spine. The endsheet is folded back onto itself to cover the sewing and to provide a hinge which is even with the back edge of the book. Although this method does preserve the original centerfold sewing, in effect, it oversews the first and last sections of the book and introduces all of the drawbacks of oversewing—without the cost reduction of a machine operation. It should be used only for oversewn volumes that are being recased. A second method utilizes specially-designed, but commercially available, endsheets. This technique should be used on recased volumes comprised of sewn, folded signatures. It uses the same process as the Smyth-National sewing method does, but is performed with a hand operation. A threaded needle is passed into and out of the last secure section of the text block, leaving a loop extending at each point of entry into the signature. The entrance and exit locations of the needle through each signature must align vertically so that the loops left from the previous signature can be sewn through and drawn tight, thus forming a series of connections between signatures. This process is repeated for each signature added. The endsheet is sewn on in exactly the same way. This forms an unrestricted cloth hinge between text block and endsheet.

**Major Advantages of Recasing:**
- Books with narrow margins, poor paper quality, or intrinsic value can be rebound in a non-damaging way that utilizes the existing sewing.
- Books will open easily both for reading and copying.
- This method is less expensive than hand sewing, but produces the same results.

**Major Disadvantages of Recasing:**
- Much handwork is involved and
therefore, extra charges are incurred.
- The binding is only as good as its original sewing and cannot be expected to be as durable as bindery sewing through the fold.

5) Yet another option is SIDE SEWING (also known as SINGER SEWING). This method is not used extensively by library binders because of mechanical and functional limitations. The side sewing process sews books through the spine with a chain stitch, much the same as a conventional sewing machine sews clothing. Unlike other sewing methods, the side sewing method sews the entire book as one section. A threaded needle enters the side of the book at a 90 degree angle and exits through the bottom of the book, where the stitch is caught by a bobbin thread.

Major Advantages of Side Sewing:
- Exceptionally strong

Major Disadvantages of Side Sewing:
- Limits the openability of the book.
- Books must have inner margins of more than 1 inch and must be no more than ¼ inch thick.

6) One last method in this category is CLEAT LACED BINDING. It is generally regarded as a technique to be used only for storage bindings and books where durability is not critical. Cleat laced binding (like oversewing) requires that the spine first be cut to separate the book into single sheets. Next, parallel slits or cleats are cut into the spine of the book by circular saws at opposed angles. These cleats cut into the spine approximately ¼ inch. A thread carrier then separates thin sections of the paper to lace a pasted thread around the cleats in a figure-eight pattern. The final strength of this process is achieved only when the spine is coated with PVA adhesive.

Major Advantages of Cleat Laced Binding:
- It is a faster and simpler method of leaf attachment and should provide a less expensive alternative to other sewing options.
- Openability is somewhat better than with oversewing and side sewing, but not as good as with some of the other methods mentioned.

Major Disadvantages of Cleat Laced Binding:
- Essentially the same spine loss is incurred as in oversewing...¼ inch for milling and ½ inch for the cleats.
- Testing has shown that strength and durability are inferior to oversewing and double fan adhesive binding, especially in the front and back sections of the text block.
- Rebinding requires cutting off an additional ¼ inch to duplicate the cleat laced process.

Options Using Adhesive

Adhesive binding, as it is done today in the library bindery, should not be confused with "perfect binding" as done in the edition bindery. Although it is fast and inexpensive, "perfect binding" (which is really a misnomer) is subject to failure with age and use. Other types of adhesive binding do not share the disadvantages of "perfect binding" or the lower cost relative to sewing and, therefore, should not share their negative connotations.

1) DOUBLE FAN ADHESIVE BINDING is the technique used by most library binders, utilizing either the Ehlermann Double Fan Binding Machine or a similar hand process. This process requires that the spine of the book first be milled to remove glue and/or sewing from the text block. It is essential that the milling operation cut the spine of the book, so that each and every page of the book is flush. After milling, a fanning clamp grips the book and later, the milling clamp is released. This double clamp process (made possible with the use of the Ehlermann Machine) ensures that the alignment of pages created by the milling process is not disturbed when the book is transferred to the gluing station. After making sure that all of the pages of the book are separated and free to fan independently over the glue roller, the next step begins. The double fanning operation first fans the book down over a glue roller which applies a thin line of PVA adhesive to each and every page as it "fans" free over the roller. This penetration of adhesive between pages (approximately ten thousandths of an inch) actually tips one page to another. At the end of the downward cycle, the process is repeated in reverse. Some binders fan each book twice. In effect, they produce a double-double fan binding. Each side of each page would fan over the glue roller twice, for a combined total of four applications of glue for each individual page. Following the spine fanning and gluing, a piece of stretch cloth back lining is applied to the spine, extending to the front and back endseet. This back lining covers the glued spine and enables the operator to remove the book from the machine clamp without disturbing the page attachment. The normal drying period should be at least several hours before any further handling takes place. Double fan binding demands careful attention to the alignment of the pages after milling and prior to fanning. If a page is not jogged flush to the surface of the spine, it will not touch the glue roller and, thus, will not be glued. Just as important is the quality of the glue used in the process. Since the adhesive is all that holds the page to the book, it makes sense to use the best product available. The PVA products which have earned this distinction are of German manufacture and, to date, have not been duplicated or improved on domestically.

Major Advantages of Double Fan Adhesive Binding:
- Completely flat openability of the book, allowing both easy reading and copying, regardless of margin.
- Very little spine milling is required, therefore allowing rebinding with minimal difficulty.
- Strength is unusually good, especially if the paper stock is anything other than heavily coated paper.

Major Disadvantages of Double Fan Adhesive Binding:
- Books in signature form must have the spine folds cut prior to fanning.
thick signature books, the necessary cuts may have to be quite large.
- Stiff and/or cross-grained papers are not well suited to double fan adhesive binding.
- Heavily coated papers do not allow the adhesive to penetrate into the paper fibers and the resulting bond is less strong.

![Mekanotch Binding](image)

2) One other method of leaf attachment employing adhesives is MEKANOTCH BINDING. The Mekanotch machine has been successfully used in Europe for close to a decade, but is just now being introduced into library binding in the U.S. The Mekanotch machine cuts thin slits in adjustable patterns and (more importantly) in adjustable depths of penetration into the spine of the text block. This notched pattern prepares the spine for optimum linkage between paper and PVA adhesives by increasing the surface area which the glue will come in contact with. Deeper notches, although they allow greater adhesive penetration and strength, will result in a book that is more difficult to open. The trade-off between strength and flexibility cannot be ignored. The notched pattern can and should be adjusted for maximum advantage. Notched Binding can be a stand alone process. After notching and spine milling, the book can be glued with PVA adhesive for an acceptable quality binding. Special care must be taken to insure that PVA adhesive is forced into all of the notches. It is important to note that notched binding as a stand alone process is, as yet, untested and cannot be recommended for permanent library materials.

The Mekanotch process can also be used in conjunction with double fan adhesive binding to produce optimum strength and flexibility. In the past, problems such as incorrect paper grain direction, stiff paper, and heavily coated paper have made many binders reluctant to choose adhesive binding, when margins are narrow. Mekanotching, for the first time, allows the binder to control spine preparation to the extent that any book can be adhesive bound with confidence. The notches cut into the spine of the book are quite thin. These notches can be spaced at varying intervals to either maximize strength or minimize paper damage. The combination of individually tipped-together pages and greater spine contact with adhesive will result in an adhesive binding superior to any other now available.

**Major Advantages of Mekanotch Binding:**
- Especially when used with double fan adhesive binding, can provide strong and flexible bindings regardless of margin.
- Notch depth and spacing are adjustable, meaning that binders can control spine preparation, minimizing damage and maximizing strength as desired.

**Major Disadvantages of Mekanotch Binding:**
- Since it is new to the U.S., not yet available in many binderies.
- The greater the linkage between the paper and the PVA adhesives, the more flexibility is sacrificed. Binding must use reasonable judgement in determining depth of notches.

**Conclusion**

Now that you have had the chance to review brief explanations of eight complex, technical methods of leaf attachment, you can better understand how difficult it is for library binders to strike a balance between acceptable quality and customer-imposed cost constraints. Full implementation of the procedures outlined on these pages require that the binder:
- Maintain an inventory of up to four different types of endsheets;
- Screen incoming books to determine the appropriate method of attaching leaves;
- Route books to the various selected work stations; and
- Reassemble the books into a complete job lot before moving them to the next stage of production.

This routine requires considerable effort by the binder. Even if the customer is willing and able to indicate the leaf attachment desired for each book sent to the binder, someone at the bindery must reevaluate that decision. This is because it is not always possible to determine the strength of an existing sewing structure in a book until the old cover is removed and the spine is cleaned. Wire staples and previous leaf attachment treatments often make it difficult to determine the width of the inner margins.

It's important to remember that the primary function of a binding is to hold the pages together within their protective cover, allowing convenient storage and easy access to the printed text. Factors beyond the control of the customer and binder often make it impossible to find one single solution to the problem of how best to attach leaves. Fortunately, library binders have the expertise, the facilities, and the commitment to successfully utilize a variety of techniques, balancing quality, strength, and cost. The customer and the binder should mutually determine a leaf attachment guideline that considers:
- Paper quality and available inner margins for each volume;
- What margin breakpoints will be for each method;
- What book's ultimate use will be;
- What the customer can afford in each case; and
- What charges will be incurred for hand work, if necessary.

An initial guideline for selection of possible methods could be as follows:

1) Any book with up to ½ inch inner margin could be:
   - Recased if possible (extra charge);
   - Sewn Through the Fold (extra charge); or
   - Double fan adhesive bound with spine notching.

2) Any book with over ¼ inch inner margin could be:
   - Recased if possible (extra charge)... recommended for poor paper or valuable books;
   - Sewn Through the Fold (extra charge)... recommended for poor paper books, books with thick signatures, or valuable books;
   - Oversewn if paper conditions permit... recommended for heavily circulated books; or
   - Double fan adhesive bound with spine notching.

Books foster communication between strangers. Binders and their customers are not strangers and should not treat each other as such. It's vital that a continuing dialogue be maintained, so that the best possible binding decisions can be developed. Hopefully, this information will help to assist such a process.

Paul Para has been in binding since 1958. Acme Bookbinding is a family owned business. Paul serves as LBI Standards Committee Chairman. He is also active in ALA, and currently involved in writing a companion piece for the LBI Standard.
Appendix 1

The Book as Object

By the RLG Preservation Committee

For collection managers and curators reviewing materials, this list can serve as an aid when assessing library materials that might be rare or valuable. It explains why books become rare and deserve retention in their format.

Many items are important because of their format; often reasons are clear for maintaining those titles in their original state. In other cases, the reasons may not be so clear, but before withdrawing or converting to another format (due to deterioration, space-saving needs, superseded editions, or duplication) they should be reviewed. Hopefully, the considerations below provide an incentive to retain those items possessing valuable or important information in their physical format which might otherwise be lost.

The RLG Preservation Committee developed this list, with suggestions from two other RLG groups: the Collection Management and Development Program Committee, and the Archives, Manuscripts, and Special Collections Program Committee. Documents consulted were:

- The National Archives and Records Administration document Intrinsic Value in Archival Material (Staff Information Paper 21).

- Transfer of Materials to Special Collections of the Archives and Special Collections Task Force, Rare Book and Manuscript Section, Association of College and Research Libraries.


- New York Public Library Technical Memorandum No. 40, Permanent Retention of Materials in the General Collections in their Original Format.


This list is neither prescriptive nor presented in priority order. It does not represent RLG policy and is offered for informational, education, and selection aid only.
CONSIDERATIONS FOR RETAINING ITEMS IN ORIGINAL FORMAT

1. Evidential value—does the item possess or demonstrate:
   - The printing history of the item, such as registration pin marks, cancels, printing techniques, and typographic errors.
   - The binding history of the volume such as original sewing stations, binding structure, printed wastepapers used in the spine lining, and cover materials.
   - Marginalia, marks of ownership, and relevant ephemera laid or tipped in.

2. Aesthetic value—does the item have:
   - Bindings demonstrating:
     - unusual technique or artistry.
     - historical/developmental interest of structure or materials.
     - signed/designer bindings.
     - early publisher's bindings.
   - Other book decorations (e.g., gilding, gauffering, decorated endpapers, fore-edge paintings).
   - Illustrations not easily reproduced or meaningful only in the original color or original woodcuts, etchings, lithographs, etc.
   - Importance as an "artists' book" where the book is designed as an object.
   - Original photographs.
   - Maps of importance.
   - Pencil, ink, or watercolor sketches.

3. Importance in the printing history of significant titles—does the item possess any of these characteristics:
   - First appearance of the title.
   - Important bibliographic variants.
   - Important (or collected) fine press printings.
   - Technique important to the printing history.
   - Examples of early local imprints.

4. Age—determine if an item was:
   - Printed before [specific dates] in [specific countries] (e.g., all titles printed before 1850 in the U.S. or all books printed before 1801).
   - Printed during the incunabula period of any area (the first decades).
   - Printed during specific later periods, such as war years, in specific countries.

5. Scarcity—determine if an item was:
   - Rare in RLG member, NUC, and/or major European libraries.
   - Of fewer than 100 copies printed.
Appendix 1: The Book as Object

6. Association value of important, famous, locally-collected figures or topics—does the item contain:
   - Notes in the margin, on endpapers, within the text.
   - Bookplates and other ownership marks of such figures; other evidence of significant provenance.
   - Important inscriptions and/or signatures.

7. Value—assessed or sold at more than [specific cost].

8. Physical format or features of interest—does the item possess any of these characteristics:
   - Contains significant examples of various forms demonstrating technological development.
   - Exhibits unique or curious physical features (e.g., interesting watermarks, printing on vellum, wax seals).
   - Is an ephemeral material likely to be scarce, such as a lettersheet, poster, songster, or broadside.
   - Contains some manuscript materials.
   - Is a miniature book (10 cm or less in height).
   - Is of questionable authenticity where the physical format may help verify it.
   - Is representative of styles, fads, mass printings currently rare.

9. Exhibit value—is the item:
   - Important to an historical event, a significant issue, or in illustrating the subject or creator.
   - Censored or banned.
MATT ROBERTS

Oversewing and the Problem of Book Preservation in the Research Library

Oversewing, the principal method employed by the commercial bindery, is considered in relation to the problem of book preservation in the research library, along with other methods which the writer believes to be conducive to book preservation. The economic forces that have led to the decline of binding standards, the inadequacy of such standards in terms of the research library, and the responsibility of both librarians and binders in the quest for effective means of book preservation are considered.

In his delightful and informative book, The Enemies of Books, William Blades writes of binders, "Oh, the havoc I have seen committed by binders! You may assume your most impressive aspect—you may write down your instructions as if you were making out your last will and testament—you may swear you will not pay if your books are ploughed—it's all in vain; the creed of the binder is very short, and comprised in a single article, and the article is the one vile word 'Shavings.'"

One of the methods employed in binding and rebinding books and periodicals for the academic library has concerned the writer for some time, and has prompted this paper. This particular method may be described by the vile word "Oversewing"; and this one word seems to be the substance of the modern commercial binder's creed—a baleful creed, in truth, and one that should deeply concern all academic librarians.

The preservation of books is a matter of vital importance to the research library. While it is true that information retrieval systems and the numerous types of microforms may make it easier to obtain information and require less storage space in the library, in many areas of scholarship there is still no adequate substitute for the printed book. The reader with book in hand enjoys a physical and intellectual freedom that no retrieval system or microviewer can give him.

The primary purposes of this paper are to describe the basic method used by the commercial bindery in binding and rebinding materials, to point out the disadvantages of this method, and to suggest other, superior methods of binding and why it is imperative that academic librarians unite in an effort to implement these methods. In addition, an attempt will be made to explain the economic conditions that have led to the present-day crisis in binding, and the role of librarians and binders in alleviating this crisis.

BINDING METHODS

Joining Sections. Of all the many steps involved in binding and rebinding, per-
haps the most important and least understood is the method employed in "joining" sections or leaves. While there are numerous methods of joining, oversewing, perfect binding, and the several forms of flexible sewing are the ones usually employed by craft and commercial binderies, and will be our concern here. Two of these, oversewing and perfect binding, are similar in that the sections are reduced to individual leaves by cutting or planing the back of the book. Flexible sewing, on the other hand, retains the original sections and, consequently, preserves the original structure of the book. On that basis alone it is inherently superior to either of the other methods. It cannot be over-emphasized that once a book has been oversewn or perfect-bound, its basic structure is permanently altered. A book sewn on cords may be taken apart and sewn on tapes, if need be, and vice versa. The trouble and expense would be considerable, no doubt, but it could be done. But a perfect-bound or oversewn book cannot be taken apart and sewn on tapes or cords, or, in all likelihood, rebound again in any manner.

Oversewing. Oversewing is the principal method employed by commercial binderies in sewing the greatest number of books at the lowest possible price. The oversewing process entails removal of the old backstrip, glue and sewing. This usually is accomplished by removing the covers and planing or grinding down the back of the book. The leaves are then gathered together and given a very light coat of glue. A number of leaves about two millimeters thick is then positioned in the oversewing machine and sewn by a process that drives heavy cords obliquely into the paper. The cords coming in from over and underneath interlock and, in turn, are interlaced by smaller threads at right angles. A second group of leaves is then placed above the first and the process is repeated. The first and final few groups of leaves are sewn several times in order to impart added strength to the front and back of the book. The final result is a book with sewing of enormous strength and tightness, and little flexibility.

The shortcomings of oversewing, while few in number, are decisive:

1. An oversewn book does not open easily and will not lie flat.
2. Oversewing presumes the destruction of the original sections, thus making further rebinding all but impossible.
3. The oversewn book has a greatly diminished inner margin. Aside from the obvious loss of proportion, lessening the inner margin may result in damage to, or partial concealment of, plates and illustrations.
4. A book that is tightly sewn and has little inner margin is difficult to photocopy and is frequently damaged in the attempt.
5. Paper that is even a little brittle will break due to the unyielding grip of oversewing.

Perfect Binding—The Minor Alternative. Perfect binding, which was developed after years of trial and error, is a misnomer of the first order. It is not true binding at all, and is most assuredly not perfect. The book is first prepared for binding by removing the old backstrip and sewing, if any existed. The leaves are then gathered together eveny and clamped into position. The book is

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Oversewing and the Problem of Book Preservation

The leaves are warped to one side, a warm plastic adhesive is applied, and, finally, the back is covered with a heavy mull, or backstrip. The book is then cased. Warping allows the plastic to penetrate between the leaves, the greater the warp the greater the penetration. Perfect binding does have several advantages, most of which are relative to some other form of joining:

1. A perfect-bound book opens easily and lies flat.
2. Soft, spongy paper and relatively old, brittle paper are adaptable to perfect binding.
3. Perfect binding does not cause the removal of as much inner margin as oversewing.
4. It is one of the least expensive forms of rebinding.

It also has some notable disadvantages:

1. It is not as strong as either oversewing or flexible sewing.
2. Perfect binding reduces the inner margin.
3. A perfect-bound book is difficult to rebind again.
4. There is no proof that perfect binding is permanent.

In many cases perfect binding can be an adequate alternative to oversewing. It is best suited for inexpensive books, including some paperbacks, books printed on soft, spongy paper, and, finally, books with slightly brittle paper, which are not of sufficient worth to warrant more expensive binding.

Flexible Sewing—The Major Alternative. Flexible sewing is known to have existed as early as the tenth century, and "was the foundation on which fine binding was built and developed during the next thousand years." In this paper we have used "flexible sewing" as a generic term, and, historically, this is incorrect. Flexible sewing means specifically sewing on raised bands (or cords). Over the years other methods of sewing were developed in response to different needs, including the flat spine and hollow back, partly for decorative purposes, and, even hundreds of years ago, the need for an "economic" binding. Among these methods were sewing on raised tapes (or, simply sewing on tapes), and sewing on sawn-in cords. Thus, in the honorable craft of book binding, sewing implies the use of tapes or cords, and flexible sewing refers to a particular form. But in our time, and for our consideration, with oversewing and the like to contend with, it is convenient to refer to all sewing on tapes and cords as flexible sewing.

Sewing on Tapes. It is impossible here to describe in any detail the technique of flexible sewing; therefore the descriptions of sewing on tapes and cords given herein are intended only to illustrate the basic nature of the processes, and are not to be taken as lessons in sewing. Excellent descriptions of hand sewing are to be found in Clements, Town, and Vaughan.

The book is first taken apart and prepared for rebinding. The sections are then gathered, knocked up square at the head, and marked for tape positions and kettle-stitch grooves, or kerfs, as they are sometimes called. Grooves are then sawn into the sections at the kettle-stitch markings. The sections are then sewn to the tapes, with the sewing thread following the fold (gutter) of the section and emerging at each tape so as to pass behind it. The several tech-
Techniques of flexible sewing are well illustrated in Vaughan.14

Sewing on Sawn-In Cords. Sewing on sawn-in cords is similar to sewing on tapes, the principal difference being that heavy cords, which lie in grooves "sawn-in" the folded edges of the sections, are used in place of tapes. Cord sewing is easier and faster than tape sewing because the needle need not puncture the paper or traverse a tape. Its lesser difficulty, however, is overbalanced by the slightly better flexibility and considerably greater strength of tape sewing.

Sewing on Raised Cords—Flexible Sewing. True flexible sewing differs from sewing on tapes and sawn-in cords in that the cords are raised above the sections and rest against them, and the sewing thread is looped completely around the cords, instead of merely passing behind them. Flexible sewing may be done on single or double cords, the former being more flexible, whereas the latter is more durable.

A book sewn on raised cords does not have the flexibility of one sewn on tapes or sawn-in cords, despite the name given the sewing, but it is much stronger. The difference in flexibility stems from the fact that raised cord books have solid backs, whereas books sewn by either of the other methods have hollow backs, which, in conjunction with the looser type of sewing, permits more throw-up in the spine, thus allowing the book to open more easily.15 Sewing on double raised cords actually approaches even oversewing in strength, and generally exceeds it in flexibility. Genuine flexible sewing, however, is far too expensive to be considered in rebinding general stack books. This is unfortunate, for no greater tribute may be paid any book than to sew it on raised cords.

Because the cost of raised cord sewing is prohibitive, the substitute methods of sewing on tapes and sawn-in cords must be our immediate concern. Both methods are far superior to perfect binding, and infinitely preferable to oversewing. Their advantages are numerous and impressive:

1. A book sewn on tapes or cords opens easily and lies flat.
2. The sewing is strong and durable.
3. Since most of the strain is carried by the cords or tapes, there is much less danger of the paper breaking. This is very important in the rebinding of books with brittle paper.
4. The sections are preserved, thus retaining the full inner margin of the book.
5. Because the cords or tapes can be continued beyond the limits of the book proper, and extended between boards and board paper, the book is less likely to lose its covers.
6. In the event a second rebinding becomes necessary, it is easily accomplished, because the book is not at all diminished by the first rebinding.

The single disadvantage of sewing on tapes or sawn-in cords is the relatively high initial cost.

Summary of Joining Methods. The only advantage oversewing has over any other form of joining is low cost, and a library that has a collection of permanent value will find even that advantage to be of dubious merit. While it cannot be denied that the initial cost of oversewing is considerably less than that of flexible sewing, the library that really believes it is saving money by permitting its books to be oversewn simply fails to see the problem in what Hawthorne called the calmly terrible light of logic. Oversewing is strong—very, very strong—and, in fact, in the long run its great strength becomes its greatest weakness. There are but few papers that can withstand the unyielding grip of oversewing over a great number of years, and none of them is economical enough to con-
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sider seriously. The typical oversewn book is so tight and inflexible that simply opening it must eventually cause the paper to break. Once that happens there is no alternative but to replace the book, because a second rebinding would be difficult, if not impossible.

To temper the stinging retorts of irate binders at this point, it would be well to mention the few situations in which oversewing does have some place in the research library. Theses and other materials not made up in folded sections do not lend themselves to many other forms of binding. In addition, a library that must provide multiple copies for one purpose or another might consider oversewing as a temporary means of preservation, the theory being that the duplicates will be used intensively for a time and then discarded. Flexible sewing is too expensive to be considered for multiple copies. On the other hand, the first copy, the one the library will keep permanently, is surely worthy of something better than oversewing.

THE STATE OF BINDING TODAY

Unfortunately, today, to a great extent, books are accorded careless treatment. They are poorly made in the beginning, handled indifferently, and miserably rebound. The responsibility for such treatment lies directly and inescapably with publishers, librarians, and binders. It is not the purpose of this paper to delve into the responsibility of publishers; that would require a lengthy paper in itself. Our concern here is with binders, who are the executioners of the book, and librarians (or, more accurately, university budget determiners) who, knowingly or unknowingly, pass final judgment resulting in that execution. Before venturing into the question of responsibility, however, we must understand clearly what the current binding practices are, why they are that way, and how they may be improved. A convenient place to begin is with the commercial bindery, and the economic forces that direct it.

The modern commercial bindery is a product both of the high-speed printing press and of the rising costs of labor. Although machine binding dates well back into the past century, it was not until the advent of cheap paper and the power-driven press that binding took a sharp turn downward. The power-driven press unleashed a flood of books into the market, and, in conjunction with rising labor costs, compelled the binder to seek more and more sophisticated machinery for binding books. Had his customers been willing or able to pay the price for hand binding, the machine might not have made such inroads into the craft, but apparently they were not; and in any event, the rise of machine binding was to a certain extent unavoidable. It was an inevitable part of that series of industrial revolutions that have been both the blessing and curse of mankind.

Competing in a free market, the commercial binder must charge the lowest possible price for his services in keeping with acceptable business practices. In order to do this, he must bind books in sufficient numbers to assure efficient utilization of his plant, capital equipment, and labor force. Since labor is unquestionably the highest priced of the factors of production, binders have been forced to develop (or copy) binding machinery of ever increasing efficiency. By investing heavily in guillotines, oversewing machines, hydraulic presses, and the like, the binder is able to reduce his labor costs to the point where he can charge a competitive price and still realize a fair profit. Other binders, too, must obey the immutable laws of competition, install high-speed binding equipment, and so bring their own prices into line. Competition, as we can readily see, is much like a seething vortex, bringing into existence faster and faster...
more efficient machinery, resulting in lower and lower prices, with less and less emphasis on hand craftsmanship. Eventually the hand binder is priced out of the industry—at that point it can no longer be called a trade—and he must either seek employment in a bindery specializing in high quality work in relatively small quantities, or give up his profession.

These are substantially the circumstances that have brought about the binding situation existing today. And who can say it is all the binder’s fault? Within his own frame of reference, and within the limits imposed upon him by others, mechanization is entirely defensible. The binder cannot be expected to stand alone and watch his business wither away solely in the service of an ideal. The use of an oversewing machine, for example, which is the fastest and most deleterious method of sewing a book, may not be entirely to the liking of the owner of a binding establishment, but, as long as his customers must pay (or insist on paying) minimal prices for their binding, or as long as they are indifferent to—or ignorant of—the irretrievable damage being done their books, the binder has no alternative but to submit to economic forces that are largely beyond his control, and employ labor-saving devices. No, the binder, while by no means entirely blameless, is more an accessory after the fact in the evil process of oversewing.

STANDARDS

The question fundamental to this discussion is whether or not the standards imposed on the commercial binder are adequate to insure the preservation of books in the research library. They may well be adequate for the public library, the school library, or the special library. But are they adequate for the research library? There is mounting evidence that they are not. The ruling philosophy of the research library is, or should be, that a book is acquired with the intention of retaining it forever. In the over-all sense, there is no such thing as a worthless book in the research library. Whether or not, in fact, they are retained permanently does not detract from the philosophy of permanence. This being the case, it becomes obvious that the binding standards for a research library must be oriented towards preservation in the long run. Proper binding alone cannot guarantee preservation, but it can and should be of a quality that will enable it to preserve the book as long as possible.

RESPONSIBILITY

Proper care and preservation of books is of vital importance if the academic library is to continue as the principal preserver of man’s accumulated knowledge. The unhappy day may come when the book is no longer essential; but that day is not now, nor is it in the foreseeable future. The truly maddening thing about the inadequacy of book preservation today is that the methods of effective preservation are known and have been known for centuries. What, then, stands in the way? Is it simply the low cost of oversewing as opposed to the relatively high cost of sewing on tapes? Is it the error of attempting to fit the requirements of one type of library to another type of library? Is it that the craft of bookbinding is so far along the road to oblivion that not enough craftsmen can be found who are able or willing to bind books properly, and that the present binding situation will persist until a satisfactory flexible sewing machine is designed? Let us examine each of these possibilities.

Sewing on tapes costs more than over-
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sewing, that is true; but it would seem that its undeniable superiority would warrant the added cost. A university that can afford to lavish tens of thousands on a pet project can surely afford to spend as much to preserve its book collection. If money is the only barrier, let it be remembered that we are not alone in this; the scholars of a millennium will praise us or condemn us for what we do now. Judgment, to be sure, must be exercised, for not every book is worth sewing on tapes. But, where possible, all are worthy of something better than the guillotine and subsequent oversewing.

Were the superiority of flexible sewing slight, or even only moderately great, one might understand its neglect; but the difference literally is between preservation and destruction. The decision should be between perfect binding and flexible sewing, and not between oversewing and nothing. An interesting analogy in this matter of cost can be drawn between superior binding and automated systems in libraries. When a particular automated system is proposed, it is usually pointed out that it can do more for the library than the old system, or that it can do better the things the old system was capable of doing. Seldom is it denied that the new system will cost more; it should cost more if it has more to offer. Why cannot the same argument be applied in the matter of binding? Flexible sewing costs more, but it has more to offer: a great deal more. It offers the preservation of the book collection!

The present binding standards seem more applicable to those libraries that do not have, and have no intention of maintaining, historical collections. A library that discards old editions in favor of new editions, that does not intend to keep more than say five years of a periodical title, or that weeds its collection of uncirculated books is in no way similar to the research library—academic or public. The binding requirements of the two are entirely different and their standards should and must be different.

It is sometimes said that even if librarians were able to pay for superior binding, the commercial binderies would not be willing to make the shift from machine to hand sewing. This is sheer nonsense. Providing they are able to realize a fair return on their investment, there is no reason why binders would be unwilling to cooperate. It would take time to amortize the percentage of machines that would no longer be needed, but this represents no insurmountable problem. It is also said that even if the money were available, not enough craftsmen could be found to meet the demand. Barring an over-all shortage of manpower, this simply is not true. A fairly long period of apprenticeship would be required to turn out the necessary journeymen, but the labor market is not so inflexible that workers could not be attracted in sufficient numbers, providing money was really available to allow charges for binding that would include a fair wage and just profit. Unfortunately, this "fair wage" would probably be so high as to make hand binding impractical, if not impossible. The crux of the matter, as always, is money. It can be spent for this, or it can be spent for that, but apparently it cannot be spent for both. So be it.

Assuming both money and manpower to be in short supply, and therefore hand sewing out of the question, could a workable machine be designed that would sew books on tapes? A machine does exist that can sew on tapes, but it is limited in usefulness by being more or less restricted to a very narrow range of book sizes. The number of tapes on which a book must be sewn varies di-

18 This is now under study. See Cladya T. Pire, "Library Technology and RTSD-Goals in Common," Library Resources and Technical Services, X (Winter 1968), 18.
rectly with the length of the book. A volume five or six inches high may be sewn on two tapes (although three would be better), but one eight, ten, or twelve inches high must be sewn on three, four, or five tapes. What is needed is a machine that can sew a variety of book sizes on a varying number of tapes.

Fortunately, a number of responsible librarians are aware and do care about the problem of book preservation. But the interest of many more librarians is needed. Awareness is essential to progress, and those who do not know must learn. The binders cannot be expected to initiate the necessary changes, and it would be unfair to expect it of them. If enough librarians demand high standards of binding, eventually the money will be made available, the machines will be designed, and then, perhaps, there may still be hope for the book.
SELECTING A LIBRARY BINDER

The selection of a library binder can be a difficult and uncertain process, unless the only criterion is low price, in which case the official can simply accept the lowest bid or cheapest price list. On the other hand, if the librarian is interested in the highest quality regardless of cost (and surprisingly, there are libraries that can afford this luxury), the problem possibly becomes even more complicated because the highest bid or the binder with the highest price list may not offer the highest quality. Somewhere between these two extremes the librarian should be able to locate a binder who offers good quality at a fair price. The problem is finding him.

In order to be successful, a library binding program must be built on mutual understanding and cooperation between the librarian and the binder. Library binding does not represent the sale of a commodity, but of a service. In a sense, the library binder is actually an extension of the library. The really good library binder knows something about the library he binds for—the use to which the books will be put, the purpose of the library, the clientele it serves, and the like. He must know, in other words, which kind of binding the library needs. On the other side, the librarian should become informed about bookbinding in general, and good binding in particular, in order to be able to communicate his needs intelligently and accurately. If the binder does not know what the library expects in the way of binding,
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consist of books representing the normal work the library expects to have done during the course of the contract. It is pointless, for example, for the library to ask for an example of binding a Braille book if the library does not acquire books in Braille. The same may be said for newspapers, portfolios, slipcases, etc.

THE SAMPLE

A typical set of samples might include:

1. A *periodical volume* made up of thick issues with relatively narrow margins or even center spreads. This will pose a special problem, since such a publication must be sewn through the folds. The thick issues will also make it difficult to round and back the book properly. It is a fair test, however, because the binder who can bind such a serial properly will also be able to bind ordinary serials equally well or better. It is an unfortunate fact that some library binders cannot (or will not) cope with unusual binding problems.

2. A *monograph* one and one-half to two inches thick, with an inner margin adequate for oversewing (at least three-fourths of an inch and preferably more). This type of sample will indicate whether the binder is capable of binding a book according to the LBI's minimum specifications.

3. A *monograph* one or more inches thick having an inner margin of less than three-fourths inch, which the binder has been instructed to tape-sew. This will indicate whether the binders have the personnel to sew a book by hand on tapes. (Some binders cannot or will not do this.)

4. A *monograph* approximately one-half inch thick, which is to be adhesive bound using a hot-melt adhesive. The binder should be instructed not to round and back this book, and to cover it in a cloth lighter than buckram, such as "C" cloth. Some library binders do not have the equipment for this style of binding, and adhesive-binding can be expensive when done by hand.

5. A *very thin publication*, e.g., a single periodical issue, to be covered in a light cloth, as above, and without rounding and backing. Cutting in a thin book can be a troublesome operation, especially in obtaining a proper joint.

6. A *monograph* of any thickness more than one-half inch, containing fold-outs, maps, etc., as well as pocket material. This will indicate how well the binder can make both a pocket and a compensation
7. A publisher's binding with instructions to rebind. The original sewing should be weak in all samples, or strong in all, so that each binder will have to decide whether to resew or retain the original sewing.

Each prospective binder is sent a sample package, a copy of the library's specifications, a list of instructions, and a deadline beyond which the sample will not be accepted.

The logic of using a sample to determine which binders are qualified is simple. If a library binder cannot do a good job on a sample of seven volumes, especially when he knows he will not be considered for the contract if his sample fails, then he is certainly not going to be able to do even a satisfactory job on the library's yearly work, be it 700 or 70,000 volumes. A sample is an effective means of permitting a library binder to demonstrate that he is capable of meeting the standards the industry has established for itself, as well as satisfying the individual library's specifications. It can be of use in eliminating the incompetent binder, which in itself will be of benefit both to the industry and libraries.

Judging of the sample should be rigorous and the passing score should be high, i.e., 85-90 percent. The prospective binders should be informed of the passing score, and warned that no work may be subcontracted. They should also be informed that failure to follow instructions (a not uncommon shortcoming among library binders) or excessive trimming will result in loss of all points for that particular book.
STATE OF CONNECTICUT BINDING CONTRACT
AS APPLIED TO THE UNIVERSITY OF CONNECTICUT LIBRARIES, STORRS

I. GENERAL INFORMATION

A. Scope

1. This bid covers the requirements of all University of Connecticut Libraries at Storrs and other libraries referred to as the "Library" or "Libraries" during the services listed in the attached proposal schedule for the period of twenty-four (24) months.
2. The State, with the consent of the contractor, reserves the right to extend this contract for an additional twelve months from the date of expiration of the contract.

B. Bid Prices

1. Prices quoted shall be for pickup, transportation, and delivery charges to be incurred by the Contractor.
2. Escalation Clause
   a. All prices shall remain firm from the date of the award through the first twelve (12) months of the contract.

C. Compliance with Specifications

1. All work shall be done in accordance with the specifications cited in Sections II, III, and IV of this document. These specifications apply to the binding and protective enclosures of library materials and are to be adhered to by the Contractor unless instructions from the Library direct otherwise.

2. The Library reserves the right to specify methods of treatment for any and all items. The method of treatment specified by the Library shall not be changed by the Contractor without prior consent of the Library. If an item cannot be treated as specified it shall be returned to the Library by the Contractor with a written note of explanation.

3. The Contractor shall establish the qualifications of the Contractor by submitting the following:
   a. Samples of blocks that have been double ran adhesive bound at least once, run through the holding machine, and bound and common bound and a selection of boxes and other protective enclosures typical of those used by the Contractor.
   b. One sample of each type of treatment used by the Contractor. These shall be marked to indicate the method of attachment with which each item is treated.
   c. A list of at least three libraries that have used the Contractor's service or products and a statement of the approximate price paid for library binding only, completed in the last four (4) full years of operation.
A statement of plant resources (library binding only) including the number of:
- full time equivalent (FTE) employees
- square feet of plant space
- adhesive binding stations
- machines for sewing through the fold
- machines for oversewing

Prior to the contract award and at any time during the contract period the Binder shall permit representatives from the Library or the Home of Purchases to inspect the Bindery during its normal working hours.

The State only shall have the option to cancel the contract upon thirty (30) days written notice to the Binder for performance that is not in compliance with all instructions and specifications stated in this contract. Delinquency of Binders shall be subject to the provisions of paragraph 30 of Standard Terms and Conditions which is a part of this contract.

D. Award of the Contract

It is the intent of the State to make multiple awards to Binders who meet the specifications, terms, and conditions of the proposal. The Libraries shall be allowed to purchase services from one or more of the three successful bidders.

G. Communication

1. The Binder shall be willing to accept collect telephone calls (or provide a toll-free number) when such calls are warranted because of persistent, excessive problems or schedule changes on the part of the Binder.

2. A representative from the Bindery shall visit the Library periodically and be available on request. The representative shall be thoroughly familiar with the terms of the contract, all technical operations and service policies of the Bindery, the binding preparation software provided by the Bindery, and the role of library binding in a comprehensive preservation program.

3. The Binder shall be prepared to provide in-service training for Library staff members involved in bindery preparation activities. Training shall focus on bindery preparation procedures, and library binding technologies and their appropriate application.

II. Packing, Pickup, and Delivery

1. The Library shall sort and pack all materials according to instructions provided by the Binder. The Binder shall make regularly scheduled pickups and deliveries no less frequently than once every fourteen (14) days, unless a different rate of frequency is mutually agreed upon by the Library and the Binder. Materials returned to the Library shall be packed in cartons with lot number, nature of contents, and specific destination clearly marked.

2. All materials shall be bound and returned within thirty (30) calendar days from the date of pickup, except when the Library and Binder agree upon a different schedule for return of specific items or shipments. Materials designated "rush" shall be bound and returned within fourteen calendar days from the date of pickup. The binder shall be allowed an upcharge per volume for rushed work.

3. All pickups and deliveries shall be made weekdays at a location specified by the Library, unless the Library agrees to an alternate arrangement. At sites other than the Library, a Budgeted Binder, the Binder shall be allowed a pickup charge for those shipments that are smaller than the minimum size specified by the Library in the attached proposal schedule.

4. All pickup and deliveries shall be made in the Binder's own vehicles.

5. The Bindery shall be able to receive an individual item from any regular shipment in order to refill binders and such shipment at the Library's request. The Library shall request services only under extraordinary circumstances and shall pay transportation costs for those items that may be returned to the Library; any means more expedient than a regularly scheduled delivery.

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b. Shipping options: preprinted address labels and bundling tickets shall be provided by the Binder at no extra charge

1. ERRORS AND DELAYS

1. Any errors made by the Binder shall be corrected (provided corrections do not damage the text block) without additional charge to the Library, and returned within fourteen (14) days of the Library having received them for correction. Any extra transportation costs resulting from such errors shall be paid for by the Binder. Errors that require the skills of a conservator to correct or that cannot be corrected shall be subject to Section 1.3 of this contract.

2. The Binder shall pay a liquidated damages charge of one dollar per calendar week or any part thereof, for each overdue item. No penalty shall apply in cases where the Library has been notified that the return of an item will be delayed, and agrees to this arrangement.

3. Computerized Services

1. The Binder shall make available at no extra cost, computer software for preparing binding instructions, communicating them to the Binder, tracking materials to and from the Binders, and developing short- and long-term statistical reports. The Library shall supply all hardware required by the library. Features of the software shall include but not be limited to the following:
   a. The ability to create binding records with the following elements: author and title information, monographic fixed title and subtitle, and variable volume information (for serials) method of leaf attachment, cloth color and type, color of stamping, trim lines, and special instructions.

2. The ability to maintain multiple cumulative data bases consisting of current and historical binding records.

3. The ability to run reports on multiple networked personal computers.

4. The ability to produce management reports sorted alphabetically by title or author on microfiche or computer and composed of the following information:
   a. Title of material sent to the Binder, cost, binding or shipment
   b. A list of all materials currently at the Binder
   c. Complete file of titles in the database
   d. Complete file of monograph fixed title and current data base.

5. Billing reports for binding shipments, providing an item-by-item breakdown detailing the cost of each shipment.

2. The Binder shall use binding instructions provided by the Library directly, communicated either by floppy disk or modem, rather than receiving information and risking error.

K. Invoices

1. Both a summary invoice and detailed invoices shall accompany each binding shipment. The summary invoice shall reflect the total number of volumes bound and boxes made and the total cost of the shipment. Detailed invoices shall reflect the price structure delineated in the bid proposal, and shall list each treatment category separately such that the number of items treated, the charge per item, and the total charge for the treatment are clearly evident.

III. TECHNICAL SPECIFICATIONS

All binding shall be done exactly in accordance with the Library Binding Institute Standard for Library Binding, eighth edition (Rochester, Library Binding Institute 1986), heretofore referred to as the LBI Standard, except as specified below.

A. Examination

1. During the examination described in Section 3.0 of the LBI Standard, any volume about which the Binder has concerns or questions regarding the Library's instructions shall be returned to the Library with a written note of explanation. The Library shall follow up with communication by telephone where necessary.

B. Collation

1. All periodicals collated shall be standard (Section 5.1.1.1 of the LBI Standard). No custom collation shall be required. Incomplete or otherwise incorrectly configured volumes shall be returned to the Library unbound unless specific stamping indicates incompleteness. The Library has instructed the Binder to bind as is.

2. Text blocks with structural damage that would interfere with a volume being bound according to its treatment provided by the Library shall be returned to the Library for assessment and either repair or modification of binding information.
C. Repair

1. Paper tears, regardless of their origin, shall be mended only by the Library and not by the Hinder (Section 5.4 of the LHI Standard). The Hinder shall bind volumes with torn pages whenever possible, returning volumes to the Library unbound only when necessary. Volumes with torn pages, whether bound or unbound, shall be returned to the Library with paper tears flagged.

D. Attaching the Leaves

1. The Library shall provide binding instructions for all volumes sent to the Hinder by the Library indicating the method of leaf attachment to be used.
   a. In general, serial volumes with issues in single signatures (approximately 12½ of all serials) shall be sewn through the fold. All other serial volumes shall be double fan adhesive bound. Where exceptions are to be made, the Library shall provide instructions.
   b. In general, selected monographs (approximately 30% of all monographs) shall be punched and all other monographs shall be double fan adhesive bound. Where exceptions are to be made, the Library shall provide instructions.

E. Preparation

1. Special copies shall be taken to preserve as much of the text block. Staples shall be pulled from the side-stapled text blocks to ensure maximum width of the binding margin except where the Library specifies otherwise.
   a. For adhesive bound volumes with extremely narrow margins, pages shall be pulled away from the original adhesive if this can be done easily and the binding margin left untrimmed.
   b. For volumes that are perforated through the margin area, pages that have been punched with three holes or spiral bound pages shall be left untrimmed or untrimmed only enough to remove perforations as specified by the Library.
   c. When serial issues of different heights must be bound together, the issues shall be punched flush at the top and bound as a unit. In no case shall an issue be trimmed for the purpose of making it conform to the smaller issue with which it will be bound.

2. All text blocks shall be matched and threaded prior to double fan adhesive binding.

3. Attachment
   a. All volumes that are sewn through the fold by hand shall be sewn onto tapes. Sewn in cords are not acceptable.
   b. When a volume consists of a single signature only, it shall be sewn through the fold by hand. Sewing single signatures by machine is not acceptable.
   c. Side sewing is generally regarded by the Libraries as an unacceptable method of leaf attachment. In cases where the Hinder asserts that side sewing is the only viable method of leaf attachment, the volume shall be returned to the Library for assessment.

F. Trimming the Text Block

1. Text blocks shall be left untrimmed by the Hinder unless the Library has provided instructions to trim because page edges are cut or badly damaged.

G. Exceptions to Rounding and Backing

1. Expanding upon the exceptions listed in the LHI Standard, text blocks less than 1½ inch thick (rather than 1 inch thick) shall be left flat-backed.

H. Filing up the Spine

1. In addition to the spine lining cloth applied to all volumes, double fan adhesive bound volumes shall first have a stretch cloth lining applied as specified in Section 10.6 of the LHI Standard.

2. In addition to the spine lining cloth applied to all volumes, text blocks over 1¼ inches thick that have been reused or sewn through the fold, and all text blocks over 2½ inches thick or that weight more than 5 pounds, shall have a paper lining applied over the cloth lining, as specified in Section 10.6 of the LHI Standard.

1. The Library shall specify the application of hollow paper tubes to the spine of selected, extremely heavy volumes. Tubes shall be constructed of paper that meets specifications for endpapers (Section 11.1 of the LHI Standard). The Hinder shall be allowed an upcharge for applying hollow tubes.

I. Stamping the Covering Material

1. The size of type for all spine stamping shall be as large as possible up to 10 point for letters and 14 point for numbers, depending on the width and height of the spine.
2. Author, title, and call number information shall be stamped on the spines of monographs. Where room is inadequate, the call number always takes precedence. The order of priority for stamping call numbers is: (1) horizontal lines running across the spine; (2) vertical lines running down the spine; and (3) in horizontal lines in the upper left-hand corner of the front cover, as close to the spine as possible. Option three (3) shall be exercised only when specified by the Library. In no case shall the call number be stamped on the front cover to make room for author or title information on the spine.

I. Stamping foil

1. The binder shall use white stamping foil unless an alternative is specified by the Library.

J. Binding Slips

1. Binding slips for bound volumes need not be returned to the Library. Slips for boxes shall be retained; they shall be left entirely unattached.

K. Construction of Pockets

1. Pockets shall be constructed so that contents are firmly supported and can be inserted and removed easily. The top and left-hand side shall be open, and the top left-hand corner cut away. The library shall determine whether pockets shall be constructed from paper or cloth. In cases where a pocket contains material over 4 inches thick, stamping shall be bound into the volume.

IV. MATERIALS SPECIFICATIONS

A. All materials used for binding and for making protective enclosures shall conform to the Materials Specifications cited in the IFL Standard

B. Group 4: Book cloth shall be used on selected light weight volumes when specified by the Library.

V. NON-STANDARD PRODUCTS

A. Economy Binding

a. Spines shall be lined with a stretchable spine lining in accordance with Section 9.2 of the IFL Standard but the second lining specified in Section 10.0 is not required.

b. Text blocks shall not be rounded and backed.

c. Covering material shall be Grade C 1 book cloth, the color to be selected by the binder.

D. Thesis Binding

1. All University of Connecticut dissertations and theses shall be oversown. Cases shall be covered in red Group 1 buckram. The spine shall be stamped with the author's name and type of degree (abbreviated). Approximately 4% of all copies of dissertations have call numbers.

C. Phase Boxes

1. Phase boxes shall conform to the model illustrated in "Guide to the Library Binding Institute Standard for Library Binding" (Chicago, American Library Association, 1980, p. 50), except that all flaps shall entirely cover the contents of the box. Folds shall be positioned such that the box provides firm support for the contents. The contents shall be held closed by durable plastic disks inserted into place, and very strong cords that will not unravel.

2. Phase boxes shall be composed of strong, flexible, alkaline buffered board that will not crease without delaminating. The library shall specify gray white buffered board approximately 55 point or lignin free board of approximately the same thickness.

3. Author and title information and call numbers shall be stamped on the spine of phase boxes using black stamping foil.

V. Cassette Phase boxes shall consist of a phase box constructed as specified above and attached to the inside back board of a case made as specified in Sections 11.0 through 11.5 of the IFL Standard. Where the boxed material exerts heavy or thick, the phase box shall be attached flush with the bottom of the case.

D. Double tray Boxes


33
1. The Library may request tough buckram, t-t book cloth or alternative cloth for use as a covering material. An upcharge shall be allowed when t-t book cloths are specified.

2. The spine-attachment pieces shall be stamped with the color of stamping indicated specifically by the Library. Where t-t book cloths are required, the Libraries may specify unfinished edges in which case an upcharge shall be allowed.

IV. Portfolios


2. The Library may request tough buckram, t-t book cloth or alternative cloth for use as a covering material. An upcharge shall be allowed when t-t book cloths are specified. They shall be made from a high quality dye-fast cotton lisle or nylon tape or unbleached linen tape. The cut ends of the tape shall not ravel.

V. Special Treatment

1. In cases where special treatments are required arrangements between the Binder and the Library shall be made prior to treatment.

2. The nature of the special work performed and the number of hours required shall be specified clearly on invoices.

VI. IMPROVEMENTS AND INNOVATIONS IN METHODS AND MATERIALS

Any improvements in traditional methods and or materials used by the Binder shall be acceptable to the Library within the terms of this contract under the following conditions. The methods and or materials must undergo extensive documented testing that measures their strength, durability, and functional qualities. Tests must indicate clearly that the innovations will lead to equal or better protection and equal or greater durability of the volume. Adoption of any technical innovation or use of any new material must be approved in writing by the Library.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monographs up to and including 12&quot; in height and 2&quot; thick</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>2</td>
<td>Scrip up to and including 12&quot; in height and 2&quot; thick</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>3</td>
<td>Upcharge for monographs and scrips over 12&quot; in height</td>
<td>per inch (or any part thereof) over 12&quot;</td>
<td>$</td>
</tr>
<tr>
<td>4</td>
<td>Upcharge for monographs and scrips over 2&quot; thick</td>
<td>per inch (or any part thereof) over 2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>5</td>
<td>Upcharge for &quot;no trim&quot; policy for all monographs and scrips</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>6</td>
<td>Upcharge for recasing</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>7</td>
<td>Upcharge for sewing through the fold</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>8</td>
<td>Upcharge for binding flash with bottom of case</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>9</td>
<td>Upcharge for mounting paperback cover on case</td>
<td>per front or back cover</td>
<td>$</td>
</tr>
<tr>
<td>10</td>
<td>Upcharge for specifying cloth color for monographs</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>11</td>
<td>Upcharge for applying hollow tube to spine</td>
<td>per pocket</td>
<td>$</td>
</tr>
<tr>
<td>12</td>
<td>Paper pouch for map or other enclosure</td>
<td>per pocket</td>
<td>$</td>
</tr>
<tr>
<td>13</td>
<td>Fabric pouch for map or other enclosure</td>
<td>per pocket</td>
<td>$</td>
</tr>
<tr>
<td>14</td>
<td>Stamping</td>
<td>per 1/2&quot; thickness (or any part thereof)</td>
<td>$</td>
</tr>
<tr>
<td>15</td>
<td>Stamping first four lines of call number</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>16</td>
<td>Stamping call number in excess of four lines</td>
<td>per line over 4 lines</td>
<td>$</td>
</tr>
<tr>
<td>17</td>
<td>Economy binding</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>18</td>
<td>Theses and dissertations (spine stamping only)</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>19</td>
<td>Portfolios up to and including 12&quot; in height</td>
<td>per portfolio</td>
<td>$</td>
</tr>
<tr>
<td>20</td>
<td>Upcharge for portfolios over 12&quot; in height</td>
<td>per inch (or any part thereof) over 12&quot;</td>
<td>$</td>
</tr>
<tr>
<td>21</td>
<td>Double-tray boxes up to and including 12&quot; in height</td>
<td>per box</td>
<td>$</td>
</tr>
<tr>
<td>22</td>
<td>Upcharge for double-tray boxes over 12&quot; in height</td>
<td>per inch (or any part thereof) over 12&quot;</td>
<td>$</td>
</tr>
<tr>
<td>23</td>
<td>Gray-white phase boxes up to and including 12&quot; in height</td>
<td>per box</td>
<td>$</td>
</tr>
<tr>
<td>24</td>
<td>Upcharge for gray/white phase boxes over 12&quot; in height</td>
<td>per inch (or any part thereof) over 12&quot;</td>
<td>$</td>
</tr>
<tr>
<td>25</td>
<td>Tan hqmn-free phase boxes up to and including 12&quot; in height</td>
<td>per box</td>
<td>$</td>
</tr>
<tr>
<td>26</td>
<td>Upcharge for tan hqmn-free phase boxes over 12&quot; in height</td>
<td>per inch (or any part thereof) over 12&quot;</td>
<td>$</td>
</tr>
<tr>
<td>27</td>
<td>Upcharge for cased-in phase boxes (charge to be added to cost of phase box)</td>
<td>per case</td>
<td>$</td>
</tr>
<tr>
<td>28</td>
<td>Special treatment</td>
<td>per hour (billed in 15-minute increments)</td>
<td>$</td>
</tr>
<tr>
<td>29</td>
<td>Upcharge for rush service</td>
<td>per volume</td>
<td>$</td>
</tr>
<tr>
<td>30</td>
<td>Minimum number of volumes per pickup outside Babbage Library</td>
<td>volume minimum</td>
<td>$</td>
</tr>
<tr>
<td>31</td>
<td>Pickup charge for shipment outside Babbage Library that is less than minimum quantity stated above</td>
<td>per pickup</td>
<td>$</td>
</tr>
</tbody>
</table>
CHAPTER TWO

HOW THE LIBRARY BINDING INDUSTRY AND STANDARDS DEVELOPED

PRIOR TO 1900

Throughout the nineteenth century, binders were taking care of books for libraries which in the earlier years were all privately owned. There was as yet no distinctive library binding or library binding industry concerned with the problem of binding volumes subjected to many circulations. It was evident, however, much before 1900, that books subject to repeated use by groups of readers needed a kind of binding sturdier than that of privately owned and less vigorously handled materials. Only after the turn of the century was a method or technology created for binding and re-binding books with materials and methods specially adapted for libraries.

1900-1924

A pioneer in this special type of binding was Cedric Chivers, who purchased the printed sheets from the publisher and bound them specifically for library use. Chivers emphasized strength of material used in binding, together with sturdy construction. Such library binding was made possible by the development of an efficient oversewing method for manufacturing the book. Chivers established plants in America as well as his native England.

Librarians were soon establishing cooperative arrangements with binders to maintain desirable binding standards. Among the oldest standards in American library science is that for library binding. In 1905, the American Library Association created a Bookbinding Committee "to act in an advisory ca
pacity to membership at large on all matters pertaining to
binding, rebinding, magazine and pamphlet binding."

In 1915, the ALA prepared suggestions for library binding
in its Library Handbook, No. 9, entitled "Binding for Li-

The first specifications for library binding were evolved by a
cooperative effort of librarians and library binders working
through their respective professional and trade associations.
In 1923, a set of general specifications for library and school
bookbinding was prepared jointly by the ALA Committee on
Bookbinding and the Library Group of the Employing Book-
binders of America. This cooperative body represented the
supervisors of binding in large libraries and library binders of
acknowledged standing from all over the country.

The librarian chiefly responsible for drafting the specifi-
cation was Mary E. Wheelock, of the Cleveland Public Library,
who worked with Frank M. Barnard of the Employing Book-
binders of America, one of the precursors of the Library Bind-
ing Institute. Other distinguished librarians and public-minded
library binders who helped in the development of specifications
are: Joseph V. Ruzicka, Sr., Elmo Reavis, Oscar Schnabel,
Floyd Hertzberg, Lawrence D. Silbert and J. Howard Atkins.

The "General Specifications for Library and School Book
Binding" were approved by the ALA Committee on Bookbind-
ing and the Library Group of the Employing Bookbinders of
America, and first appeared in Library Journal of September
1, 1923.

This was instituted the standardizing of methods and ma-
terials to meet the requirements of library usage. The purpose of
the standards was to make possible a clear understanding be-
tween buyer and seller as to what was being bought, thereby
eliminating misrepresentation in the sale of library binding, and
establishing a basis of fair competition. Reputable binders
began to adopt the standards.

1924-1914

Although during this decade there was still more than one
method of library binding practiced, binders tended to conform
to the specifications. This tendency was strengthened by tech-
nological advances. In 1920, a machine for oversewing was
perfected by W. Elmo Reavis, and the industry began to be
known as the library binding industry, as distinguished from

other types of binding. The machine had revolutionary impli-
cations for the industry. It reduced the cost of library binding
occasioned by use of hand labor and began the mechanization
of many library binding processes.

As it concentrated more and more on a library-intended
product, one part of the bookbinding industry found its inter-
ests to be different from that of other binders. Hence, a sepa-
rate section was set up in the Book Manufacturers' Institute
(BMI) when it was formed in 1913. That same year the ALA
and BMI issued "Minimum Specifications for Class 'A' Li-

The ALA Executive Board Minutes for December 27,
1934, contain the following action:

VOTED: That the Book Manufacturers' Institute and
the American Library Association appoint a joint com-
mittee whose duties shall be to encourage and, if pos-
sible, insure the widespread acceptance and adoption by
libraries and binders of the specifications for library bind-
ing adopted by the ALA Council June 30, and to facil-
itate discussion and solution of problems of common in-
terest to binders and libraries.

By 1934, "library binding" meant binding done by library
binders according to specifications. The policy of ALA and
the library binding industry had been clearly stated in the
1934 "Minutes". The next two decades saw this policy imple-
mented.

1934-1954

The library binders' section in the Book Manufacturers' Insti-
tute withdrew in 1935 and formed its own separate organiza-
tion, the Library Binding Institute. A Joint Committee of ALA
and LBI was thereupon created by the Executive Committee
of ALA to have jurisdiction over the specifications. In 1938
and 1952 the Joint Committee amended the Specifications for
Class "A" Library Binding.

In 1939, standards for prebinding, modeled on those for re-
binding, were approved by the Council of ALA, LBI, and the
Book Buying Committee of ALA. The official title was "Stand-
ards for Reinforced (Pre-Library Bound) New Books, Jan-
uary 1939."

The Joint Committee throughout these two decades fol-
lowed the mandate of the ALA Council in obtaining "wide-

* ALA Annual Report, 1930-31, p. 29
spread acceptance and adoption by libraries and binders of the
specifications for library binding." In 1954, because of legal
considerations, the Joint Committee was dissolved by A.L.A.
Within A.L.A., a Bookbinding Board continued.

1954-TO DATE
So well had the Joint Committee pursued its aims that in
1956 a member of the A.L.A. Bookbinding Committee was
able to say:

The Minimum Specifications for Class A Library Binding
have become the accepted Standard for library binding.
By adhering to these standards, inferior binding has
largely disappeared from the library scene. It is a sturdy
binding, good for hard-used books like the reserve books
in a public library. These books may circulate a hundred
times a year. Minimum Specifications for Class A Binding
is an economical binding for such books. (Library

Thus, the objective of the A.L.A. Council was achieved. In
addition, the future course of an industry was predetermined.
In the development of a standard for library binding prior to
1923-1934, there were two schools of thought. One believed
that librarians should state what they expected from a volume
subject to library use (a "performance" standard). The other
believed that a given performance can be assured only when
materials and methods of manufacture are precisely specified.
The latter school of thought prevailed in A.L.A. when the
"Minimum Specifications for Class 'A' Library Binding" and
Prefining were adopted. Thereafter, the technology and
economy of the industry were shaped by the specifications.
Equipment was developed by machinery manufacturers, know-
ing that there were definite processing steps and an assured
market for enough machines to warrant development expenses.
The specifications were amended by L.B.I. several times, the
most recent revision being in 1971. (See Chapter Ten.) They
have had general acceptance. The manufacturing methods have
changed and library binderies have become semi-automated
with sophisticated equipment for most operating steps, includ-
ing computers, electronic and hydraulic equipment. Productiv-
ity per man hour has increased, with the result that, despite
cost increases, prices have increased at a rate substantially less
than those for new books and periodicals. (See Appendix 7.)

The Library Binding Institute, recognizing its obligations to
the libraries of America, and cognizant of the responsibility im-
posed upon the library binding industry to maintain the tremen-
dous investment in library volumes for reader usability, adopted
many experimental and far-reaching programs, including prob-ably the only In-Plant Quality Control Program adopted by
any industry serving libraries. Every Certified Library Binder
is visited periodically by an impartial expert and every opera-
tion is checked. (See Appendix 8.) Management Practices and
Training Programs have been instituted as part of a continuing
program of education of management personnel. Procedures
have been established for the testing of new equipment and
materials. Upon petition of L.B.I., the Federal Trade Commis-
sion has issued "Trade Practice Rules for the Library Binding
Industry" which set forth the legal obligations of fair practices
as between a binder and his customer and as between competi-
tive binders. (See Appendix 9.)

OTHER STANDARDS—LIBRARY TECHNOLOGY
PROGRAM
Although the dominant standard for library binding is the L.B.I.
Standard, there are three other book standards, as well as
standards for materials used in bookmaking.

The Official Minimum Manufacturing Standards and Speci-
fications for Textbooks is a materials and methods specification
issued by the National Association of State Textbook Direc-
tors, the American Textbook Publishers Institute and the Book
Manufacturers' Institute.

Specifications for Lesser Used Materials was issued by
A.L.A. June, 1957, and approved by L.B.I. This is a materials
and methods specification for storage materials. It has not had
a wide acceptance among libraries, since the requirements of
many libraries vary as to this type of material.

Proposed Performance Standards for Binding Used in Li-
braries was issued in 1966 by the Library Technology Pro-
gram of the American Library Association. Earlier it was
pointed out that before the Class "A" specifications were de-
veloped there were two approaches to the problem of a stand-
ard for library binding. The one that was adopted by A.L.A. and
L.B.I. was a standard based on materials and methods specifi-
cations. This was in the 1930's. Years later, when the Library
Technology Project was established, it adopted a policy of de-
veloping, whenever possible, performance standards, rather
than specifications of materials and methods. This position is
based on the theory that, as consumers, the principal concern should not be with how a thing is made (that is the concern of the manufacturer), but how it will perform (which is the only concern of the consumer).

With this as its premise, probably the most comprehensive study yet made of binding problems of libraries was begun, resulting in two publications relating to Performance Standards. To date, no industry group has adopted or approved the proposal, except the Library Binding Institute which has recommended approval of the durability, openability, and general appearance provisions as expressions of what a consumer requires. Inasmuch as the LBI Standard does meet these requirements, it coupled its recommendation with the proposal that ALA should approve the LBI Standard as an expression of the library binding industry's method of satisfying library requirements, and that both should be American National Standards Institute standards. Publishers' Weekly (December 11, 1967) expressed the view of book manufacturers and publishers in an editorial written by Daniel Melcher, then President of R. R. Bowker Company, and Leonard Shatzkin, Director of Book Manufacturing, McGraw-Hill.

They stated:

"Thus there are now LBI standards for heavy duty library reboundings and pre-bindings, and there are the widely used textbook specs—but nothing for publishers' library editions... Speaking practically, the so-called 'standards' (referring to the proposed performance—ed. note) are not standards at all. They are proposed testing methods. However, they are no less interesting because of this. They represent an earnest effort on the part of librarians to pin down satisfactory performance in a publisher's library binding. How to deliver such performance with adequate quality controls, is the problem of the book industry."

The LTP study determined, through a survey, librarians' requirements in terms of openability, workmanship, and durability. It tested, both in the laboratory and in the field, various types of volumes, new and rebound, and established a laboratory equivalent for wear by use of a special testing machine (Universal Book Tester).

It appears clear from the study that Class "A" volumes (LBI Standard) met all of the requirements libraries seek in volumes.

Historically, library binding was among the first standards adopted by the library profession. Class "A" specifications have served the library world satisfactorily. What LTP seeks to do is to minimize the librarian as a factor in how volumes are bound. By doing so and by specifying what it seeks by way of performance, it believes that new ways of binding books may be developed.

The library binding industry, through LBI, criticizes this approach, pointing to the fact that the library binding industry was developed on the basis of the ALA approved specifications and did meet the purposes set forth in Phase II* (p. 20) with respect to durability:

The basic purpose of the program was to develop standards that would make it possible for a librarian to purchase with some degree of confidence a binding designed to withstand certain specified tests in the laboratory and that might be expected to remain serviceable for a given number of circulations.

With respect to openability (p. 32) the proposed standard is a guide and states substantially what LBI has previously issued.

With respect to workmanship, there is no problem. Volumes that are suitable for oversewing and that are properly oversewn will open within the tolerable ranges. Volumes where the printing is against the grain may be oversewn but hand sewing and stubbing of pages may be required; this is a matter of expense.

The administrative procedures for purchasing library binding, recommended in the Phase II study, provide a method which some large library systems with extensive staffs may find suitable, but it is doubtful that it would be applicable to most libraries. Most libraries have very limited budgets for library binding in terms of the relation of dollars spent to other expenditures. To maintain a collection demands more than merely a specification or standard. A system whereby there is a flow of material from library to binder and back again, together with constant attention by all personnel to the condition of the collection is a necessity. No list of volumes (100 or more) has the homogeneity necessary for the proposed sampling procedures to be valid. The fact that some...
volumes in a shipment test one way is no proof others will follow the same pattern, since most volumes sent to a bindery vary as to dimensions, construction, materials and condition of wear. Testing to destruction is contrary to the actual use of library volumes by clientele.

Book manufacturers point out that volumes bound according to the textbook specifications, and all Smyth-sewn volumes, cannot meet openability tests. They also raise questions as to whom they must satisfy—the publishers for whom they do the manufacturing, or the publishers' customers.

These are only some of the questions raised by the LTP study, and it may be some time before they are resolved. This much, however, is certain: The effect of this study in stimulating thinking on the subject should be recognized.

The Chairman of the Advisory Committee for Development of Performance Standards for the ALA, stated upon their issuance that the Standards were only provisional. "Those responsible for preparing them are fully aware of their limitations. Further research is needed to make the standards complete, and experience in their actual use will demonstrate how they may be improved." *(Publishers' Weekly, June 12, 1967, p. 77)*

Probably of more significance in the long run is the fact that the growth of American libraries in the past decade has resulted in a tremendous growth in collections. The library profession is properly concerned with defining library needs, and the library binding and publishing industries are equally entitled to determine how each shall meet those needs.

As the size of the market for library binding grows, the economics of the situation ultimately will prevail, but a dialogue between the industry and the profession should lead to results beneficial to both. In the meantime, librarians can be assured of meeting their responsibility for maintaining their collections by the use of Class "A" for materials requiring this standard.
Excerpt from *The Davey Difference*. 6-page advertising brochure produced by The Davey Company, N.J., Five Corners Station.

**DAVEY DIFFERENCE #1**

Binders Board is made on a wet machine where a continuous moving felt is pressed against the pulp back to the majority of squeezing. With each rotation of the drum, an individual part of the felt is compressed to form a homogenous sheet until the growth of the board is achieved. Every sheet of Binders Board is subjected to a repeated pressing with each revolution. As it is built up in layers, one will find an even strength. Each sheet goes through a total of 6,000 tons of pressure. This extreme pressure that keeps theBinders Board's strength and density that guarantees water and oil proof, heat-resistant, and depends upon

**DAVEY DIFFERENCE #2**

Each sheet of Binders Board is individually pressed under 6,000 tons of hydraulic pressure. This pressure removes a greater part of the water, compressing the board to about half its original thickness—thus further increasing the board's density. The result is a stronger, tighter-knit Binders Board. The exceptional density of Binders Board is due in large part to this extreme pressure put on the sheet while it is still wet.
DAVEY DIFFERENCE #4

The unique calendaring operation in the making of Davey's Birchers Board presses the sheet between two sets of steel rolls, compressing it at additional pressure. This increases its density and produces a smooth, hard, flat sheet immediately after calendaring. Each sheet is automatically aligned for proper orientation with heavy and light sheets being processed immediately upon exit.
Uniform Methods for Library Binding

GENERAL SPECIFICATIONS FOR LIBRARY AND SCHOOL BOOK BINDING APPROVED BY THE A. L. A. COMMITTEE ON BOOKBINDING AND THE LIBRARY GROUP OF THE EMPLOYING BOOKBINDERS OF AMERICA

While these notes have been arranged primarily as an aid to library and school book binders in giving detailed instructions in clear and concise form to their workers, they will be found equally important for the guidance of librarians and of assistants in charge of binding in libraries and schools. They will serve also as information regarding many details of binding with which some librarians are not familiar, the better knowledge of which, with the co-operation of the librarians based on that knowledge, should be of great value in helping to bring about more uniform methods for library and school book binding.

Both librarians and library binders are asked to note any additions or modifications which may seem advisable, and to send such to the Chairman of the A. L. A. Committee on Bookbinding to be considered for inclusion in later revisions of the specifications which it will probably be necessary to make from year to year.

INSTRUCTION TO Binder

When an instruction slip accompanies the volume to be bound it should be tipped by one corner to the inner margin of the right hand page following the title page, using as little paste as possible. An instruction slip should never be pasted to the title page, which should be kept as free as possible from notes or other marks.

It is rarely advisable to use the original cover for a resewed book which has been used in a library.

PREPARATION FOR SEWING

All books should be carefully collated before taking apart, to detect any missing or damaged leaves, missing or duplicate sections, badly printed pages, irregular margins, etc. In case of portraits, maps, or other illustrative material in bad condition, save if possible, trimming ragged edges and building out the leaf as described in a later paragraph.

Where in a work of fiction one or two leaves are found to be missing in one place, some librarians are willing that the book shall be bound as it is, provided the missing parts are neither the first nor the last pages, the missing pages to be noted on a slip tipped to the inner margin of the right hand page after the title page. When a larger number of leaves is missing or books other than fiction are found imperfect, either return the books unbound accompanied by printed slips such as are used by some binders, on which the defects of each book are checked, or ask for further instructions from the librarian.

While the backs of all books should be trimmed as little as possible before sewing, whether to be done by hand or machine, the backs of books having narrow or irregular margins should not be trimmed at all. If margins are too narrow to oversew without the stitches encroaching on the print, either "sew thru" by sections or return the book to its owner unbound for further instructions or as being impossible to rebind satisfactorily.

The usual order of leaves in the front of books preceding the text is as follows: (1) Leaf giving list of other books by same author, or series or edition notes. (2) Leaf on which is printed "half title" only. (3) Frontispiece, which may be an illustration, portrait or map. (4) Title page. (5) Dedication, preface or introduction, or all of these. (6) Contents. (7) List of illustrations, maps, etc. (8) Half title or chapter title.

There are numerous exceptions to this order, some books having title page only preceding the text, the subject matter following immediately. Others have in addition to title page any one or more of the introductory features described, and commonly in the order given, although varying somewhat.

Discard tissue paper from frontispiece and illustrations of fiction unless title or description of picture is printed thereon.

Where either inner or outer margin of a leaf is ragged, trim even leaving not less than one-fourth inch outside of the print on which to paste a strip of paper of quality and tint similar to that of the book. A stock of such paper may be collected from fly leaves in the books which are to be bound, which will furnish the desired variety in quality and tint. This kind of patching is particularly suited to title pages which are in bad condition while the rest of the book is fairly good.

Mend tears in margins with light weight cockle bond paper, and on left page as a rule, where it shows less in reading. However, when one side of a torn leaf is blank, patches should always be pasted on that side.

Mend tears thru print with tissue paper, strengthening tears in margins with thin bond paper.
When the paper in a book is brittle or has become disintegrated from age, or if still apparently in fair condition altho the copyright date may show the book to be fifteen years old or more, the paper should be inspected carefully and if sewing is not likely to hold, the book should be returned to the library unbound or more, the paper should be date may show the book to be fifteen years old apparently in fair condition altho the copyright SEPTEMBER 1, 1923

Beyond the point of safety to bind. not his fault, or an innocent borrower be sus-
binder be blamed for the condition which was be found breaking next to the sewing, and the rebinding, but after a little time the paper would be of thin, strong muslin. be of good enough quality; books made from a fair grade of heavy paper if not too large; and some books of higher grade paper whose original form should be preserved as far as possible. Most books should be oversewed, either by hand or by machine. There are some books, however, which it is better to sew thru the sections, such as books having narrow or irregular margins, provided paper is of good enough quality; books made from a fair grade of heavy paper if not too large; and some books of higher grade paper whose original form should be preserved as far as possible.

Oversewing either by machine or by hand is entirely practical for nearly all library binding, including books and periodicals, estimated by various binders at eighty to ninety per cent of the entire output.

Sewing should extend no nearer to upper and lower edges of the book than one-half to three-fourths of an inch, to allow for trimming and a possible second rebinding.

After sewing trim edges of books carefully, watching for irregularities in print, extending maps or plates, narrow or irregular margins, etc. A trim of one-fourth inch should be ample.

LINING, ROUNding AND BACKING

Linings should be of a good grade of medium weight canton flannel or muslin, cut to cover the back of the book to within one-fourth inch of top and bottom and extending over on each side one-and-one-half inches.

After a coat of flexible glue has been applied the volume is rounded and the fabric lining applied before the book is backed by pasting the fabric all over on one side (if canton flannel is used the nep side should be pasted); the backing to be done when nearly dry. This insures a smooth and flexible back and well defined joints. So-called super or grass cloth should never be used for lining.

Joints should be neatly and carefully made. They should not be so wide as to allow the covers to become loose and wobbly.

COVERING

A good quality of binder's board should be user for covers, suited in weight to size and weight of the book.

Magazines and large books should be bound in Holliston, Interlaken or Bancroft legal buckram unless instructions indicate otherwise. The medium and darker colors are most satisfactory. The lighter shades show soil easily and must be lettered in ink to have titles legible. Gold is used on the medium and dark colors, which give better service for permanent binding. For books of ordinary fiction size some librarians use Caxton buckram, while others prefer the heavier buckrams.

Two styles of corners are in common use, the so-called round corner and the square corner. Both have their advocates, but there seems to be little choice as to their relative value.

In fastening the cover to the book special care should be used that the end papers are securely pasted in place in order to insure strong joints. Never use glue for this purpose. Books should remain in press until thoroughly dry—not less than twelve hours, while a longer time is better.

Where leather is specified the use-of acid free morocco (goatakin) is advised. This is especially desirable for the better class of books having hard wear. Reliable manufacturers and dealers stamp each skin on the back indicating it to be free from injurious acids. The ordinary grade of cowhide is cheaper than morocco and in most climates disintegrates within about five years, but an acid free cowhide is obtainable thru reliable dealers which is said to be nearly as durable as the acid free morocco. Roan and buffing are not to be considered for library binding.

The waterproof cloths or imitation leathers, made in suitable grades for book binding, promised to meet a need in library binding when put on the market some years ago. But the unreliable qualities put out during the war period and after, the difficulty in handling and in lettering in the binderies, the cracking of the finish
with use and the occasional lots which had a very offensive odor, combined to make them unpopular both with libraries and binders, and their use has been largely discontinued. The need for waterproof bindings in libraries is as great as ever, however, and it still remains for the manufacturers to devise means of suitting the finish on their materials to the requirements of libraries and binderies.

Volumes of sets should be accompanied by instructions as to materials and colors, and by a sample volume if others of the set have been rebound in the owning library.

**Finishing**

Finishing should be done after proper sizing (never with powder) and with type suitable in size and spacing to the bulk of the book and length of the title, and with real gold, quality XXD.

The top of the first line of the call number should be placed two-and-a-half to three inches from the lower edge of the “back-bone” of the book. Librarians differ as to this, but the important point is to have the call number high enough to escape the friction of ordinary handling. A standard location to be agreed upon by library binders would be useful where libraries do not specify definitely as to height desired.

**GENERAL NOTES**

Before books are returned to patrons it is a good plan to open each one according to rules with which all binders are familiar. This tends to overcome the stiffness of the newly bound volume and minimize the likelihood of the book being forced and perhaps ruined by some thoughtless person. During this process of opening, the books should be inspected critically to detect any imperfections in sewing, inverted leaves or sections, torn or pasted leaves, or other defects in workmanship.

There are some rare, valuable or unusual books which require special and very careful treatment which cannot be covered in these specifications. Usually, where the quality of the paper in such books permits, they should be “sewed thru” the sections and trimmed as little as possible or in some cases not at all. Librarians appreciate intelligence, skill and experience on the part of the binder when this class of work is to be done, and there should be good incentive for the shop that can turn out not only good serviceable books, but which on occasion can produce bindings above the average in finish and workmanship.
The decision to conserve or to commercially bind is made by the library conservator. During the review process, brittle items and those that require extensive conservation treatment are removed from the work flow and routed to Collection Development, where they are evaluated for retention and moved into work flows for withdrawal or preservation searching, as appropriate.

In general, the following paperbound volumes are commercially bound:

- Unbound journals
- Nearly all paperbacks
- Single signature pamphlets from sets, parts of which are already commercially bound

In general, the following paperbound volumes are treated in Conservation before they are sent to the commercial bindery:

- Volumes that have inserts (e.g., errata sheets, loose indexes) that must be incorporated into texts before binding
- Volumes that need to be altered before binding (e.g., loose sheets that must be joined to create signatures, volumes with paper covers that must be sewn on
- All volumes that require paper or sewing repairs before being commercially bound

In general, the following paperbound materials are treated in Conservation:

- All paperbacks that must be rushed to the shelf
- Single-signature pamphlets except those from sets, parts of which are already bound
- Multiple-signature pamphlets under 1/4" thick
- Loose leaves under 1/8" thick
- Paperbacks that will be superseded
- Adhesive-bound paperbacks with inner margins so narrow that commercial binding could destroy the text
The decision to conserve or to commercially bind is made by the library conservator. During the review process, brittle items and those that require extensive conservation treatment are removed from the work flow and routed to Collection Development, where they are evaluated for retention and moved into work flows for withdrawal or preservation searching, as appropriate.

In general, the following worn and damaged materials are treated in Conservation:

- All volumes that must be rushed to the shelf
- All volumes that require minor repair only
- Volumes with special features
- Volumes with fragile paper
- Volumes published before 1900

In general, the following worn and damaged materials are treated in Conservation before they are sent to the commercial bindery:

- All volumes that require paper or sewing repairs before being commercially bound

In general, the following worn and damaged materials are commercially bound:

- Volumes that do not merit extensive treatment (e.g., most failed adhesive bindings)
- Volumes with very worn cases that have no special features
- Volumes with more than 15 loose leaves (e.g., replacement pages, separately received indexes)
- Volumes from sets, parts of which are already commercially bound
- Large flat-back publishers' bindings
- Journals that were originally bound too thick
- Preservation photocopies of brittle volumes
THE UNIVERSITY OF OREGON LIBRARY
1992 SPECIFICATIONS FOR LIBRARY BINDING

I. GENERAL CONDITIONS

A. SCOPE AND DURATION

1. These specifications apply to the binding of books and periodicals for the University of Oregon Library and the University of Oregon Law Library, Eugene, Oregon (herein referred to individually as "the Main Library" and "the Law Library" respectively, and collectively as "the Library") for a two-year period beginning with the award of contract.

2. By mutual agreement the contract may be extended for one year, no more than one time.

3. The Binder shall be able to supply the complete range of services and supplies specified in this contract. Bids must be submitted on all categories of binding included in these specifications.

B. BID PRICES

1. Prices are to be subject to renegotiation on an annual basis during the period of any contract.

2. Justification for any increase in costs is to be submitted in writing to the Library 60 days prior to the end of the 12-month period and must be based on costs of labor, supplies and shipping.

3. Any increase must be approved by the Library and in the event that an increase cannot be agreed upon, the contract is subject to cancellation by either party.

4. During the period of the contract, the Library shall benefit from any decrease in costs.

5. Any special treatment or extra labor not quoted in the bid, for which an hourly rate is to be charged, shall not be carried out by the Binder without permission of the Library.

C. COMPLIANCE WITH SPECIFICATIONS

1. These specifications are intended to conform to the 8th edition of the Library Binding Institute Standard for Library Binding (hereinafter referred to as the LBI Standard) and to all subsequent revisions thereto.

2. All work shall be done according to the attached specifications unless instructions from the Library direct otherwise.

3. The Library will specify binding styles and treatments for any and all items as provided in section IV.D below. The style (i.e., method of leaf attachment) or category (e.g., economy paperback) shall not be changed by the Binder without prior consent of the Library. If an item cannot be bound in the manner specified, the Binder shall telephone the Library for instructions or the item shall be returned by the Binder with an explanation of the reason for its rejection.

4. The Binder shall establish the qualifications of the Bindery by submitting the following evidence:
   a) Samples of work for examination by the Library, including text blocks which have been double-fan adhesive bound, fitted with a new case only (original sewing structures retained), oversewn, sewn through the fold, and economy paperback bound. Failure to submit all of the samples requested shall be grounds for rejection of the bid.
   b) One sample of each type of endsheet used in the Bindery. These should be marked to indicate the style(s) of binding for which each is appropriate.
   c) The names of college or university libraries for each of which the Binder has within the past 3-year period bound not less than 10,000 volumes annually.
   d) Upon notification of award, the successful bidder shall be required to furnish within ten days a performance bond in an amount sufficient to cover the cost of binding 400 volumes, executed in favor of the state to ensure faithful performance.
   e) Statistics regarding plant resources, including the number of
      - square feet of plant space
      - full-time regular employees
      - machines for through-fold sewing (state name of manufacturer)
      - oversewing machines
      - adhesive binding machines (state name of manufacturer)
      - lettering machines (state name of manufacturer).

D. WARRANTY AND QUALITY CONTROL

1. In accordance with section 3.0 of the LBI Standard, the Binder shall provide warranty of its conformance to the LBI Standard.

2. Any improvements in the traditional methods or materials used by the Binder may be acceptable to the Library within the terms of this contract under the following conditions: the methods and/or materials must undergo extensive, documented testing which measures their strength, durability, and functional qualities; and tests must clearly indicate that the innovation(s) will lead to...
better protection and greater longevity of the text block. Adoption of any technical innovation must be approved by the Library prior to implementation.

3 The Binder shall guarantee the binding of all volumes for a minimum of two years. Errors in lettering, lettering worn off so as to be illegible, defective sheep causing split volumes, use of improper adhesive causing drying out and looseness of material, etc., shall be returned to the Binder and repaired at no cost to the Library. Normal wear of the covering material shall be excluded. To indicate the Binder's responsibility for binding of the volume, a code mark must be adhered to the volume in an appropriate place that will indicate the year and the job lot number in which the volume was processed.

4 Prior to the contract award and at any time during the contract period, the Binder shall permit representatives from the Library to inspect the Bindery during its normal working hours.

5 A regularly scheduled performance rating (every 12 months throughout the term of the contract) may be submitted by the Library indicating the Library's degree of satisfaction with the performance of the Binder. Performance will be rated on the following factors:
   a) General contract compliance
   b) Quality of work
   c) Delivery schedule
   d) Error rate

6 In the event that service or the quality of the work is not satisfactory, the Library is to provide a written detailed complaint. Corrections to any complaint are to be made at once or the contract is subject to cancellation 90 days after the date of such complaint.

E AWARD OF THE CONTRACT

The contract shall be awarded on the basis of the following considerations:
   40% Bid price
   20% Technical ability, including facilities, capacity, experience, previous work and financial standing
   20% Quality of sample
   10% Compliance with specifications
   10% Ability to offer options preferred by Library

F. SUBCONTRACTING

All binding shall be done on the premises of the Binder unless written permission to do otherwise is granted by the Library. No subcontracting will be permitted without the express written approval of the Library.

G. INSURANCE AND SECURITY

1. The Binder shall insure, at his expense, all books and other library materials against loss or damage from any cause from the time they leave the Library until they are returned. The insurance contract shall provide "all-risk" coverage. The limit of liability for any volume lost or destroyed shall be a sum that would cover the cost to the Library of reordering, cataloging, and binding. As proof of compliance with this requirement, the Binder shall furnish a certificate of insurance to the Library.

2. Books and other library materials lost or damaged while at the Bindery or in transit must either be replaced by the Binder, or the Binder must reimburse the Library for their total replacement and processing cost.

3. In the event that an irreplaceable item is damaged or destroyed, the Library reserves the right to secure, at the Binder's expense, an independent appraisal of the damage or loss sustained. The Binder shall reimburse the Library in full for damage to, or fair market value of, the item.

H. COMMUNICATION

1. To ensure ready communication with the Library, the Binder shall provide a toll-free line, or agree to accept all collect telephone calls from the Library.

2. The Binder shall ensure that all information regarding the Library's binding shall be uniformly communicated to both the Main Library and the Law Library.

3. A representative from the Bindery shall visit the Library periodically and be available on request. The representative shall be thoroughly familiar with the terms of this contract; and shall have in-depth knowledge of the technical aspects of library binding and the operations of the Bindery a/its representatives, and an understanding of the relationship between library binding and the preservation of library materials.

4. The Binder shall be prepared to provide annual in-service training for Library staff members involved in bindery preparation activities. Training shall focus on helping the staff to better understand library binding technology and its application.
The Binder shall provide free software support for the
binding database, including appropriate training and
emergency assistance.

1. PACKING AND SHIPPING

1. The Library will sort all materials by category (e.g.
standard monographs, flat-rate periodicals), pack and
label cartons by style of binding, and address them for
shipment to the Bindery. “Rush” materials will be packed
together and labeled accordingly. Materials returned to
the library shall be packed by the Binder in cartons with
category of contents and specific destination legibly
marked. “Rush” materials shall be packed and labeled
separately by the Binder.

2. The Binder shall make regularly scheduled pickups and
deliveries, or be able to accept regularly scheduled
freight shipments, no less frequently than every four
weeks (28 days). Preference will be given to a Binder
who can accept shipments every two weeks (14 days). The
Library shall approve the freight company to be used, if
the pickup and delivery cannot be made in the Binder's
own vehicle.

3. The Binder shall bind and return all materials to the
library within 4 weeks from the date of shipping or
pickup, except when the Library and Binder agree upon a
different schedule for return of specific items or
shipments. Preference will be given to a Binder who can
bind and return materials within 2 weeks.

4. Shipment integrity shall be maintained. All items picked
up under one shipment number shall be returned together
or otherwise accounted for. The Main Library and the
Law Library shall separately prepare and pack their
shipments, and the Binder shall ensure that the shipments
shall not be intermingled.

5. Materials designated “Rush” shall be bound and shipped
within 3 working days. Shipment method shall be
specified by the Library. If the Library ships “Rush”
material via Blue Label UPS or other service,
transportation costs will be assumed by the Library.

6. The Bindery must be able to retrieve an individual item
from any regular shipment in order to “Rush” bind and
“Rush” return it at the Library’s request. The Library
will endeavor to keep this type of retrieval to a
minimum, and will pay transportation costs for those
items which must be returned to the Library by some means
more expeditious than the regular pickup or shipping
arrangements.

At the request of the Library, the Bindery must be able
to locate an item to correct Library errors. In such
cases, rework costs for correction shall be born by the
Library.

7. All pickups and deliveries shall be made indoors unless
the Library specifies or agrees to an alternate arrange-
ment. Pickups and deliveries for the Main Library
shipments shall be made on the premises at 15th and
Kincaid Streets, Eugene, Oregon, 97403. Pickups and
deliveries for the Law Library shall be made on the
premises at 11th and Kincaid Streets.

8. The Binder shall pay transportation charges (except for
“Rush” materials sent separately) or shall include an
estimate of shipping costs in any bids submitted.

9. Shipping cartons and pre-printed address tickets shall be
provided by the Binder at no extra charge.

J. ERRORS AND DELAYS.

1. Any errors made by the Binder shall be corrected
(provided corrections do not damage the text block)
without additional charge to the Library, and returned
within 14 days of the Binder’s having received the items
for correction. Any extra transportation costs resulting
from such errors shall be paid for by the Binder. Errors
which cannot be corrected, or which require the skills of
a conservator to correct, shall be subject to the
insurance provisions of section J. G.

2. The Binder shall be subject to payment of a liquidated
damages charge of one dollar per calendar week, or any
part thereof, for each overdue item. Credit for such
charges must be indicated on the invoice for each short
shipment. No penalty shall apply in cases where the
Library has been notified that the return of an item will
be delayed due to the need for special treatment or
extraordinary circumstances.

K. INSPECTION.

All volumes bound for the Library shall be carefully and
critically inspected by the Binder for defects in
construction or lettering and shall be wiped clean if
necessary before packing and shipment to the Library.

L. INVOICES.

1. The Library requires 3 copies of each invoice. The Main
Library and the Law Library require separate accounting
and invoicing. Invoices must accompany any shipment to
the Library, or be sent by mail within one working day

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following dispatch of the binding shipment. A sample invoice shall be submitted with the bid.

2 Invoices shall reflect the price structure delineated in the bid proposal. Each category of binding shall be listed separately, and include the number of items so treated, the charge per item, and the total charge for that treatment. Extra charges shall be clearly indicated.

II. BINDING DATABASE.

A. UNIFORM BINDING OF PERIODICALS AND REFERENCE BOOKS.

The Binder shall be able to maintain uniformity of pattern, placement of lettering on the spine, and color of stamping foil and cloth on all volumes of the Library's periodicals and reference books. To ensure this, the Binder shall make and maintain, at no extra cost, whatever records are necessary to achieve uniformity.

B. BINDING SYSTEM.

1. The Binder shall provide a computerized program for the preparation of binding tickets for periodicals and reference books to save the Library repetitious typing of color, title, and call number information.

2. A copy of the Library's computer database of binding information for its periodical titles and reference book titles must reside in the Library, available for the preparation of binding tickets and for updating the binding database. Local binding data shall be the property of the Library.

3. The computer program must provide the following functions for the preparation of binding tickets: addition, correction, duplication, and deletion of entries to a shipment. Search keys to the binding database must at a minimum include title and call number. Fields must be available to retain information specific to the Library's internal use. The program must further provide for the addition, correction, and deletion of titles to the database. A history of serial binding arranged by title is desirable, as are a search-and-replace function, a reporting function, and processing by computer of monographs and periodicals not on the database.

4. Preference will be given to complete packages in which the Binder provides both computer equipment and software for the Library's use during the term of the contract. Software support is required. A system fully interfaced with the Bindery is also preferred.

5. The Library will provide access to its records of binding titles and colors but the staff costs required to set up the system, when it is new to the Library, will be borne by the Binder.

6. Information contained on the ticket must consist of:
   a) the title, subtitle, or other entry appearing precisely (exact image) as it will appear on the volume, followed by the pattern for variable information in correct sequence.
   b) call number in precise sequence.
   c) the stamping color and color of buckram.
   d) a Library database record number.

The binding ticket must also provide an area to allow the Library to add instructions to the Binder. A sample of the binding ticket design must be attached to the contract and a Library-approved ticket must be attached to the contract.

7. Blank binding tickets must also be provided in Binder's expense using the above format for monographs and periodicals which are not to be included in the binding database.

8. Within 60 days after access to its records is provided by the Library, the successful bidder shall provide an online program and database for the preparation of binding tickets.

9. Binding tickets returned from the Bindery shall be inserted in each volume. Tickets shall not be adhered in any way to endpapers or text block.

C. DATABASE INFORMATION.

Information contained on the database must consist of:
   a) the title number
   b) the binding style
   c) the buckram color
   d) the title appearing precisely as it will appear on the volume
   e) the variable information guide in the correct sequence
   f) the call number
   g) the library imprint
   h) library instructions
   i) internal Library information
   j) internal Library database record number

III. SPECIFICATIONS FOR MATERIALS.

All materials shall conform in every regard to the LBI Standard.
A. PAPER

All papers used in the binding process shall conform to the American National Standard for Information Sciences-Permanent of Paper for Printed Library Materials, ANSI Z39.48-1984 and all subsequent revisions thereto. Endpapers shall be of a neutral tint, and grain direction shall run parallel to the binding edge.

B. ADHESIVES.

1. Adhesives used for endpaper and leaf attachment, back lining, gluing prior to rounding and be king, case making, casing-in, and portfolios shall be a high grade cold emulsion internally plasticized copolymer polyvinyl acetate with good aging characteristics.

2. Adhesives shall be strong, resilient, flexible, and chemically neutral so as not to cause deterioration of paper or binding.

3. Adhesive used for double-fan adhesive binding shall be designed specifically for the machine used.

4. No animal glues shall be used for any purpose.

5. Specifications for the adhesives to be used shall be submitted with the bid.

C. BACK LINING MATERIAL.

Back lining materials shall be of sufficient strength for the thickness of the volume. When volumes are economy paperback bound, stretchable back lining material suitable to the weight and size of the text block is acceptable.

D. BOARD

Board thickness shall be appropriate for the size and weight of the volume to be bound, and shall be available in thicknesses ranging from approximately .080 to .125 inches.

E. COVERING MATERIAL

Covering materials for bound volumes shall conform to the LBI Standard unless a different type of materials is requested by the Library for specific items or a specific class of items. The Library shall specify colors for all classes of materials except economy-bound paperbacks. Choice of colors for economy-bound paperbacks shall be left to the Binder, with the stipulation that volumes sent in sets will be bound in a matching color.

F. CORD

Cord used as reinforcement at the head and tail of the spine shall be at least equal to a four-ply polished twine. Any substitutions must be approved by the Library.

IV. SPECIFICATIONS FOR BINDING OR REBINDING

A. SELECTION OF BINDING METHOD

The Library intends that sewing through the fold (saddle stitching) and double-fan adhesive will be the binding methods of choice. The retention of internal margin sufficient for subsequent re-binding of volumes is a high priority for the Library; therefore, oversewing shall be minimized and clear sewing forbidden. However, the Binder must be able to supply oversewing upon request. Decisions to select oversewing will be made by the Library on an item-by-item basis.

B. DEFINITIONS

1. Monograph: For purposes of this contract, a monograph is defined as one piece of printed material submitted for binding or re-binding as a single unit without reference to another unit, or with no demand placed on the Binder to match the unit to another.

2. Periodical: For the purposes of this contract, a periodical publication is defined as a single piece of printed materials bound separately, or a series of two or more serially numbered printed units bound together, for which the cloth color must be selected, and the cover stamped with information so as to match other publications in the same set or series.

3. Reference book: For the purposes of this contract, a reference book is defined as a single text block for which the cloth color and stamping foil color must match others in a set or series. The spine stamping pattern must be kept uniform and be maintained in the binding database.

C. PREPARATION FOR BINDING

1. All volumes shall be examined by the Library to detect damaged leaves, narrow margins, and/or peculiarities of paper or construction which determine the type of binding to be used and/or necessitate special instructions
2. The Library shall prepare materials for standard periodical collation, ensuring completeness and correct sequence of parts and pages. The Library assumes the responsibility for accurate collation; in general the Binder should bind issues in the order received. However, if the Binder discovers an incomplete or imperfect volume, unless the Library has acknowledged the incompleteness on the binding ticket, the Binder should telephone the Library for instructions or return the item to the Library unbound with an explanation of the reason for its rejection.

3. The Library shall flag double leaves and foldouts which require the Bindery to perform setouts. The Library shall also perform page repairs; however, the Binder may make minor repairs if necessary, using "archival-quality" paper-base pressure-sensitive tape. If the Binder discovers badly torn pages or double leaves, maps or inserts which have not been flagged and which make it inadvisable to follow the Library's binding instructions, the Binder should telephone the Library for new instructions.

4. In all cases, if in the opinion of the Binder the material cannot be satisfactorily bound, the Binder shall telephone the Library for instructions or return the material unbound with an explanation of the problem.

5. Covers, advertisements and similar materials sent to the Binder shall be bound in place.

6. Rounded and backed text blocks which must be rebound but do not have intact stitching shall have the old rounding and backing taken out.

7. For text blocks which must have the spine edge trimmed in preparation for oversewing or double-fan adhesive binding, not more than 1/8" (as little as possible) of the edge shall be removed in order to preserve as much as possible of the inner margin. Perforated margins shall be trimmed at the Library's direction, providing adequate margin can be retained.

8. Very bulky serial issues which are saddle stitched, and which cannot be seen through the fold (e.g., when they must be bound together with non-saddle stitched issues) shall be prepared for adhesive binding or oversewing by slitting through the fold rather than by milling or trimming.

9. All staples must be pulled from side-stitched text blocks to provide an inner margin of maximum width. No text blocks shall have staples removed by trimming or milling.

Staples shall be removed from all saddle stitched issues prior to through-the-fold sewing.

D. BINDING METHODS

Binding methods shall conform in all respects to the LBI Standard.

1. Oversewing.

Oversewing shall be used upon instructions from the Library for heavily used volumes on thick or coated paper with an inner margin of at least 5/8 inch. The Binder shall request approval from the Library before oversewing materials sent for double-fan adhesive binding.

2. Sewing through the fold.

All volumes in folded sections shall be sewn through the fold by machine, or by hand, upon instructions by the Library. Preparation of monographs for hand-sewing through the fold shall not include the sewing of slots at the spine edge. Original sewing holes shall be reused whenever possible.

Monographs and regular periodicals shall be sewn on highest quality linen or cotton tapes, spaced evenly between the head and tail of the book.

3. Double-fan adhesive binding.

Unless instructed otherwise by the Library, all volumes in single sheets shall be double-fan adhesive bound. The maximum thickness for double-fan adhesive-bound volumes shall be 2 1/2 inches. Adhesive shall not remain on the head or tail edges of the text block.

Endpapers may be single folios for standard monographs and periodicals to be double-fan adhesive bound. The endpapers shall be placed on either side of the text block before the gluing-up process, and shall be attached during that process.

4. Rebinding.

Upon instructions by the Library, volumes with intact stitching shall be re-bound in new covers, not reason. Included in this category are volumes that have previously been bound that have worn or damaged covers but intact sewing, and new paperbacks that are sewn through the fold with strong thread. Books found to have damaged sewing shall be double-fan adhesive-bound.

When serial parts of different heights are to be bound together, the bottom of the resulting text block should be flush, not the top. Stubbing should be used whenever practical to make up for the size differences. In no case shall one edge be trimmed excessively for the purpose of making it conform to a smaller piece with which it must be bound.

Stubbing shall be added to volumes to compensate for thick pockets and to correct text blocks which flare out towards the fore edge.

E. ENDPAPERS

1. Grain direction shall run parallel to the binding edge. Endpapers shall be of a neutral tint unless otherwise requested by the Library.

2. Endpapers for heavy, bulky, or large periodical volumes shall be reinforced as needed.

3. If pages are to open flat, as with music scores or maps, a folded endsheet shall be adhered with cloth or in some manner which permits the volume to lie open easily.

F. TRIMMING

The head, fore edge, and tail of periodical volumes shall be trimmed as slightly as possible, and no more than 1/8 inch. Under no circumstances shall printed matter be trimmed away. Periodical volumes with different size issues shall not be trimmed. Monographs and reference books shall not be trimmed without specific instructions from the Library. For periodicals with uneven outer margins the Library will specify which edges should not be trimmed. If a volume is trimmed into the text upon instructions from the Library, the Library will assume responsibility for replacement costs. All trimmed edges shall be smooth, square, and without knife marks.

G. Rounding and Backing

In general, the Library prefers flat-back binding because of its superior openability. Rounding and backing may be retained for reuses, but the Library shall be consulted before the Binder rounds and backs any new bindings.

H. LINING UP THE SPINE

Text blocks over 2-1/2 inches in thickness, or which are sewn through the fold, shall have an extra lining of alkaline paper applied over the cloth lining for additional support. Double-fan adhesive-bound volumes (except for economy paperback) shall be lined with a stretchable backlining material and a standard lining.

I. CASE WORK

1. Volumes shall be cased in with an internally plasticized cold emulsion copolymer polyvinyl acetate adhesive, completely compatible with the adhesive used for making the case.

2. Volumes shall be cased in squarely with tight and secure joints so that bonded areas cannot be separated without damage to the bonded surfaces. All squares shall be uniform around the perimeter of the text block and shall be approximately 1/8 inch wide. Hinges shall be no more than 1/2 inch wide, and covering asterial shall be snugly and uniformly turned in at least 5/8 inch on all sides.

J. LETTERING

1. Lettering shall be durable and legible, with uniform letter spacing. Type size and placement of lettering for existing periodical sets shall match previously bound volumes. Otherwise, 10 point type shall be used, except for volumes thinner than 1 inch, which may be lettered in 12 point type. All call numbers shall be stamped as required and for periodicals or 12 point type for monographs. Character shall be available in both upper and lower case for use as appropriate in call numbers. White foil shall be used except for economy-bound paperbacks unless otherwise instructed by the Library.

2. The Bindery shall make no alterations to the lettering to be provided by the Library. The Library will advise the Bindery on acceptable abbreviation and hyphenation when necessary, and will confirm corrections to the Library-supplied text when errors are discovered by the Bindery. When the volume size dictates, arrangement of text may be modified according to established Library guidelines.

3. The order of priority for placement of call numbers on the covers of classified volumes is:
   a) in horizontal lines on the lower spine. Call numbers shall never be stamped vertically, except for economy-bound paperbacks.
   b) when volumes are too thin to accommodate the call number, in horizontal lines stamped on the upper left

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corner of the front cover as close to the spine as possible. When the Library has directed that the title shall not be lettered (for alphabets which cannot be duplicated by the Binder) call numbers stamped on the front cover shall be placed on the lower left corner, as close to the spine as possible.

4. The order of priority for placement of author/title information on the covers of volumes is:
   a) in horizontal lines on the spine.
   b) when volumes are thinner than 3/4 inch, in vertical lines on the spine. The title shall start not less than 3/4 inch from the top of the spine and run from head to tail of the volume.

Spacing between author, title and variable information shall be adequate to allow for differentiation. Where possible variable information shall be printed in a horizontal direction.

5. Lettering charges shall be included in all bids for each category of materials.

J. POCKETS FOR SUPPLEMENTARY MATERIALS

Pockets shall be made of alkaline paper, tear-resistant fabric, or fabric and board, depending on the bulk and weight of the materials they are designed to protect. They shall be constructed so that the materials they contain are firmly supported, and are not easily damaged as they are inserted in or removed from the pocket.

K. SECURITY STRIP APPLICATION

Before casing-in each volume bound for the Main Library, the Binder shall apply a security strip to the inlay. Strips shall not be applied to any other part of the volume. The Main Library shall supply the strips to the Binder; the Law Library does not require this service.

V. SPECIFICATIONS FOR ECONOMY PAPERBACK BINDING

A. Volumes to be economy paperback bound must be paperbound originally, and not taller than 12 inches, wider than 10 inches, thicker than 1-1/2 inches or thinner than 1/4 inch.

B. All economy paperbacks will be bound as sent at a flat rate per volume. The Library will sort such paperbacks and pack them in separate cartons.

C. Books which are securely sewn through the fold shall not have the spine folds cut. Books which are not securely sewn shall be double-fan adhesive-bound as described in section IV.D.3. No drilling, stapling, or side-sewing will be permitted, except with specific permission of the Library. Spines shall be lined according to section III.C, except that the second lining may be omitted. Binding construction shall allow for durability and flexibility upon opening and closing the book. Volumes need not be rounded and backed.

D. All endpapers shall be fabricated into a unit with the grain of the paper running parallel to the spine of the book and consisting of at least one free endpaper and a visible reinforcing fabric.

E. Volumes shall not be trimmed without instructions from the Library.

F. Covers shall be of binder's board between .080 and .135 inch, appropriate to the size and weight of the paperback being bound.

G. The book cover material shall be Group C-1 Book Cloth, in accordance with section 18.4.2 of the LBI Standard. All covers shall be made by utilizing a copolymer cold emulsion internally plasticized polyvinyl acetate adhesive. The cover material shall be turned in enough to insure proper adhesion.

H. The Library will provide the text to be stamped on cases. Spines will be stamped with brief author, brief title, and complete call number. Black or white lettering shall be used. Call numbers shall be stamped horizontally when possible, otherwise vertically.

VI. SPECIFICATIONS FOR FLAT-RATE PERIODICALS

These specifications apply to periodicals which have 1/4-inch margin on all four edges, consist of issues which are all squareback or all in signatures, and require no special instructions. The Library will pack and label flat-rate periodicals in separate cartons. The Binder shall bind all such volumes at a flat rate; no extra charges shall be permitted, unless approved by the Library.

A. Double-fan adhesive binding as described in paragraph IV.D.3 shall be used for issues in single sheets. Issues in signatures shall be sewn through the fold as described in IV.D.2. Tapes need not be used.

B. Lettering shall be as specified in section IV.J.

C. All materials shall be as specified in section III.
D. Flat-rate periodical volumes shall be trimmed on all three edges as slightly as possible and no more than 1/8 inch. No trimming shall be done to volumes for which the library has specified "Do not trim."

E. Procedures for casemaking, gluing, spine lining, endpaper construction, attachment and casing-in shall be as specified in section IV. Flat-rate periodicals need not be rounded and backed.

VII. SPECIFICATIONS FOR THESSES AND DISSERTATIONS

These specifications apply to monographic materials typed or printed on 8-1/2 x 11 inch sheets of paper, which have no separate cover of a heavier paper. The Binder shall bind all such volumes at a flat rate, and no extra charges will be permitted, except for special services requested or approved by the library.

A. Volumes shall be bound in black or navy blue cloth as directed.

B. Double-fan adhesive binding as described in paragraph IV.D.1 shall be the preferred spine treatment, unless otherwise specified.

C. Pages shall be properly squared before binding. Volumes shall not be trimmed.

D. Lettering shall be as specified in paragraph IV.J. Author and title are arranged vertically along the spine, beginning not less than 1 inch from the head of the case. The call number, if any, shall be arranged in horizontal lines near the foot of the spine. If there is no call number, a 2-inch space shall be left clear at the bottom of the spine.
SELECTED READINGS
Selected Readings


Sparks, Dr. Peter G. "Some Properties of Polymers and Their Relevance to Double-Fan Adhesive Binding. The New Library Scene 9 no. 4 (August 1990): 1, 5-8.

