Application for Institutional Membership

Formerly *The New Library Scene*

SHELFLIFE

A NEWSLETTER FROM THE LIBRARY BINDING INSTITUTE

Application for Institutional Membership

We hereby apply for Institutional Membership in the Library Binding Institute.

Institution _____

Contact Person _____

Address _____

City _____

State _____

Zip _____

Telephone _____

Fax _____

Email _____

Today's Date _____

Remit with payment to:
The Library Binding Institute
4300 South U.S. Highway One
#203-296
Jupiter, FL 33477
To join by credit card, please contact Debra Nolan at 561-745-6821.

When the Library Binding Institute (LBI) was formed more than seventy years ago, adherence to the highest possible standard in library binding was one of the organization's founding principles. Upholding and advocating high standards continues to be an essential component of LBI's mission.

The importance of preserving the written word cannot be underestimated. Increasing awareness about the value of library binding is critical, as is educating library professionals on the long-term care, preservation, and maintenance of their book and serial collections. As the premier resource on library binding information and education, the Library Binding Institute exists to support librarians in this endeavor.

Institutional membership in LBI consists of institutions which have in-house library binderies, but who use outside commercial binders for substantial amounts of their binding needs. This type of membership also includes binders, librarians, and other individuals who are interested in the science and art of prolonging the useful life of library materials. Institutional members are entitled to participate in all programs and services of the Library Binding Institute. Dues for this category of membership are $100 a year. Please complete the application and return with payment to The Library Binding Institute.

LBI
THE ORIGINAL HARDCOVER BOOK BINDERS

A New Chapter in the Library Binding Industry

By Gerrit Dykhouse — It's no secret the library binding industry has experienced a significant amount of change in the last 20 years. With the advent of digital technology, e-journals, and increased demands on library budgets, Certified Library Binders have had to identify new product/service mixes to remain competitive and viable.

In recognition of the changing industry, LBI conducted a survey of Certified Library Binders to measure the current and future direction of their businesses. The data gathered confirmed a suspected trend: An annual decline in library binding revenue and an increase in revenue from other sources, including print-on-demand, short-run binding, prebinding, and textbook rebinding (see figures 1 and 2).

This survey data helped form the basis of a dialogue on markets and messages at the 2005 LBI spring meeting in Tucson, Arizona, where members discussed not only the multi-faceted nature of their businesses but also common themes (including quality, state-of-the-art technology, and value) relating to their work. What emerged was the following consensus: *Certified Library Binders are the hardcover book binding experts who have been creating and following the highest standards related to their work for more than 70 years*. The group then pinpointed a challenge: How to effectively reach current and new markets with this overarching message.

By the end of the 2005 LBI spring meeting, LBI's marketing committee was tasked with exploring options for updating the

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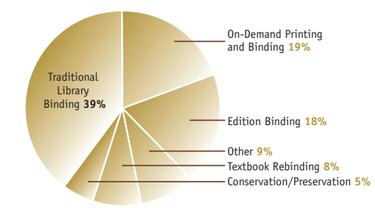
FIGURE 1
Certified Library Binder
Product/Service Mix 2005

FIGURE 2
Certified Library Binder
Product/Service Mix 2010



A New Chapter in the Library Binding Industry Continued from page 1

organization's industry advocacy and educational collateral. After some deliberation, they decided to hire a professional marketing and communications firm. Incipit Integrated Communications submitted a proposal and, thanks to substantial diligence and creative talent on their part, they were retained to help create LBI's new identity.

At the 2006 LBI spring meeting, the new marketing campaign – ***For the love of books*** – was unveiled. Incipit summed it up best by stating,

> ***For the love of books*** showcases the relevancy of LBI's love for books. It uses quotes from literary sources to symbolically represent a love letter to books. These quotes are married with a lithographic print of an author's hand to represent the old world charm of books, as well as the quality and care LBI members take in producing their work. Coupled with modern and contemporary fonts as well as modern imagery, we've effectively showcased the spectrum of LBI's offerings. This campaign both supports and expresses LBI's ongoing and current passion for excellence and high standards.

All of LBI's updated advocacy and educational materials will reflect this new look and feel, including an organizational brochure, bookmarks, a tabletop display, ***EndPaper*** (LBI's monthly member e-newsletter), and our web site. The revived LBI brand is also reflected in this inaugural issue of ***ShelfLife*** (formerly known as *The New Library Scene*). LBI has high hopes for our new image, and we're confident current audiences, such as libraries, and new audiences, such as printers and publishers, will embrace our updated branding.

Certified Library Binders are experts at customizing their services to meet client needs and, as a result, offer a range of products and services. Librarians should talk to Certified Library Binders about services which can be provided in addition to library binding. Schools, publishers, and printers should do the same. These are our beliefs, and we have made great strides to ensure they are communicated effectively.

Past LBI branding

Updated LBI branding

Brochure Bookmarks

Tabletop Display

The marketing committee welcomes comments and suggestions from our members, as well as from libraries, schools, and the printing and publishing industries.

Gerrit Dykhouse is LBI Marketing Committee Chair and Vice President. Gerrit is also the Vice President of Wallaceburg Bookbinding and Manufacturing. He can be reached at gerrit@wbmbindery.com.

Do tapes or cords reinforce sewn library bindings?

By Werner Rebsamen — That's a good question raised by a quality-concerned librarian. After all, whenever we see bindings come apart, it's not the tapes or cords that fail. Bindings seem to split in the joint areas and often, we observe, the text blocks then just tangle between the two cover boards. Tapes and cords are used only if text blocks are sewn through the fold.

If we study the early methods of bookbinding, the use of folded sheets started approximately in the third century. Sheets folded in half were then inserted into each other, forming the so-called signatures or sections. A single section may contain eight or 16 pages or any other multiple of four. The number of pages is usually determined by the thickness of the paper. For example, 64 pages per section is common for thin Bible paper. Multiple sections are then placed on top of each other until a text block is complete.

> These days, high-speed web presses may print up to 100,000 folded signatures each hour.

Ten sections of 16 results in a book of 80 sheets (or 160 pages). In earlier times, Monastic binders needed a method to hold those individual sections together. This is when they started to use strips of vellum, leather thongs, etc. With thread and needle, they opened the folded sections in the center and sewed those in a continued fashion onto the strips. Often, these strips were part of the cover decoration as they were laced through the joints and sometimes through the cover boards. Raised cords soon were another option, which resulted in those familiar raised "bands" on the spine of a leather-bound binding. In the seventeenth century or thereabouts, the French started the method of sawed-in cords. This resulted in much faster sewing, a necessity, as publishing and printing endeavors increased. In 1879, the first workable book sewing machine was patented (by American inventor David McConnell Smyth).

Interestingly, the method of manufacturing books has not changed much since then. These days, high-speed web presses may print up to 100,000 folded signatures each hour. Smaller runs, printed on sheet-fed presses, require sheet folding. The result is still individual sections or signatures. Computerized machine sewing systems are now capable of sewing over 200 signatures every minute! Unfortunately, library binders cannot match such speeds. Book manufacturers can quickly process folded signatures, which are all the same, (thus allowing for high-speed automation). This is a result of folded signatures, which makes the center of the signature easy to find with automated suction heads. The signatures are placed onto the saddle so fast, one can only see a stream of paper. However, in library binding, an operator must find the center manually, as all such works are trimmed and the sheets are loose. This is a time-consuming, labor intensive task; a one-signature- (magazine) at-a-time process. Once an item is placed onto the saddle, the operator presses a foot pedal, which moves the saddle into position. Punches pierce upward through the fold and create the sewing holes. Pairs of sewing needles and hooks then descend into the pierced holes, forming a small loop. The loop carrier then pulls the loop to the right and the hook needles catch the loops and pull the threads upwards. The needles withdraw, tightening the loops. Successive signatures are sewn one to the

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Do tapes or cords reinforce sewn library bindings?

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next and, finally, after the last signature is sewn, a double stitch will secure the sewn text block. This type of stitching is similar to crochet.

Hand-sewing is often required when the dimensions of a book exceed that of a sewing machine. In hand-sewing, tapes and cords provide a framework around which the sewing structure is built. Tapes are completely external to the text block and provide gentle support and enhance ease-of-opening. For more information on the procedures of sewing on tapes and cords, please refer to an earlier LBI publication, ***Technically Speaking***, which features articles on book sewing, including illustrations.

In the past, when saddle-sewing by machine, tapes were sometimes an integral part of the process. In Europe, sewing onto a gauze and tapes was a common procedure, although it is a process no longer practiced due to fierce competition and high-speed sewing systems. In edition binding, the sewn text blocks receive a coating of adhesive on the spine. Lining with a flimsy cheese cloth and paper follows. This is much different from library binding.

A graduate study on the subject

Graduate students are always looking for interesting topics for their theses. I teach all aspects of book manufacture and print-finishing, plus a special course on traditional bookbinding, and one of my graduate students, Dorothy Cox, showed a keen interest in the subject. Cox began the formation of her thesis with the old saying, "a chain is only as strong as its weakest link". Working with this concept, Cox decided to test this theory on bookbinding. Of the many binding materials and techniques that may affect a book's strength, one of the oldest is the sewing technique. Over centuries, binders have developed many different methods of book sewing. Cox stated that these days, librarians, book collectors, and others who require sewn bindings may prefer one method over another for multiple reasons, that without having explored alternative sewing methods.

With a well-equipped book testing laboratory at her disposal, Cox concentrated on the commercially accepted methods of sewing used in library binding. Since many libraries, government agencies, and the like require that their publications be sewn on tapes, we're lead to question whether they, in fact, get a stronger binding? That was the question raised in a letter to LBI

by Richard Frieder, Head of the Preservation Department, Northwestern University Library:

What are the merits of machine sewing through-the-fold versus doing so by hand, using methods found in today's library binderies (for example, sewing on sawn-in cords or cloth tapes and sawing sections before sewing)? It is my belief that sawing sections, which is often done far too deeply, is very detrimental to binding. Under these circumstances, I think machine sewing is superior to hand sewing, and I would be pleased to be proven either right or wrong by your testing and research.

> *Of the many binding materials and techniques that may affect a book's strength, one of the oldest is the sewing technique.*

Library binders responded with different answers and opinions, which further encouraged Cox to research this topic. Cox offered a strong knowledge of statistics and data analyses, so we designed a testing program to answer the following questions:

- Are books sewn through the fold by machine stronger than those sewn through the fold by hand?
- Are machine-sewn books with tapes stronger than machine-sewn books without tapes?
- Is hand-sewing on tapes stronger than hand sewing with sawn-in cords?

Two destructive tests – the tensile page-pull and signature-pull tests – were chosen to measure strength. Significant differences on both tests are necessary to show measurable differences in strength. These research questions provided three hypotheses:

I. Books sewn by machine through the fold are stronger than books sewn by hand through the fold.

II. Books sewn by machine through the fold on tapes are stronger than books sewn by machine through the fold without tapes.

III. Books sewn by hand through the fold on tapes are stronger than books sewn by hand through the fold on sawn-in cords.

Preparation of books for testing

What's most important for any kind of test is that the materials used have no variables. For all books used in this study, the same paper was used and its bursting strength recorded. Each text block contained 15 sections of 36 pages each. As to achieve uniformity, the signatures and pages to be pulled were marked before binding. Placing each tear test on the same pages for each group of samples – rather than totally by random – was an important step, as an inner sheet pulls more easily than an outer one that is glued to the next.

Endpapers and all other materials used had to meet the Standard for Library Binding.

Cox did the hand-sewing of all 30 books, with a member of the faculty supervising to ensure that the threads were waxed and that the kettle stitches were done uniformly and with even tension. No attempt was made to use the technique of catching the tape with thread.

All 60 text blocks were sent to a Certified Library Binder who then machine-sewed 15 books with tapes and 15 without tapes on the National sewing machine. Thereafter, the Binder followed the normal procedures, rounding and backing the books, furnishing them with a strong back-lining material, and casing them into Grade F buckram hard covers. In other words, they were all bound identically, the only exception being the sewing method.

Testing of bound books

Once the machine-bound books were ready, testing began. The Polytester is a tensile page or signature pull-testing device. To load a single sheet into the testing device, pull it out of its binding, and record the data takes approximately five minutes. You can just imagine how much time Cox spent in the RIT/LBI

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book testing laboratory. She did have some difficulties with testing but was able to correct the data and averages for ANOVA and Duncan Multiple Range Tests. During signature pulls, some of the sections could not be pulled completely from the binding. However, Cox noted, the sewing was loosened sufficiently to stop tension on the testing machines gauge. Then data analyses started. With the aid of a statistics professor, Cox filled out many pages of charts. Unfortunately, as is the case with so many graduate students, the project was more or less complete but the thesis was never written nor presented. Such incomplete research projects are often an embarrassing situation for a faculty member who arranges for financing and seeks industry participation.

Testing results and conclusion

As expected, the strongest group of pages pulled were from the outer areas of the signatures. As was stated earlier, these sheets are imbedded into the spine adhesive.

The hand-sewn text blocks with sewn-in cords were the weakest. Cox concluded that the holes weakened the binding. However, she also concluded that although the sewing techniques used for these tests produced bound text blocks of superior strength, none of the techniques used are statistically superior or inferior to the other tested methods.

Machine sewing is not, statistically, significantly stronger or weaker than hand sewing. (Keep in mind that when hand-sewing, Cox only sewed the signatures all-along and did not, while sewing on tape, secure the thread to the one below.)

Cox's conclusion is as follows:

The strength of sewn bindings depends on several factors: The sewing method, the glue coverage, the size of the holes in the paper, the strength of the paper itself, and the placement of the page within the signature and the signature in the book. A large volume with thick signatures on weak paper may benefit from a different method than a volume with fewer, thinner signatures, and stronger paper. Even though inexperienced sewers can produce volumes of consistent strength, factors under control of the sewer – in particular, the size of the hole in the paper and the glue coverage – can affect the strength of a binding.

None of the techniques used are statistically superior or inferior to the other tested methods.

An expert's opinion

The suspicion Richard Frieder expressed about large sewing holes in his letter to LBI was correct. Sewing holes weaken the paper. However, when the spine is glued-off in a professional manner, the sewing holes are filled with a high-quality PVA adhesive. If done correctly, this adhesive penetrates up to the innermost four-page section.

And what about cords and tapes? Do they make a stronger binding? You may have noticed that the new NISO/LBI standard no longer requires tapes when sewing by machine. Hand-sewing is, of course, a different matter. When sewing larger text blocks by hand, tapes or cords are necessary. But do they make for a stronger binding? As proven in this research project, the answer is no. Why? In certified library binding and in accordance to the Standard, the library binder must use a high quality back-lining material. That liner extends from head to tail and over onto the front and back endsheets. This like having a single, strong tape all over the entire spine! This feature sets library binding apart from any other method book manufacturers use in edition binding. It makes a big difference in end-use performance quality that results into up to 100 circulations.

Regardless of how a text block is sewn through the fold (with or without cords or tapes), a sewn-through-the-fold library binding is still the very best. The sewing will flex in the fold, encouraging easy opening and acting like a shock absorber. The result is ultimate durability.

Werner Rebsamen is Professor Emeritus at the Rochester Institute of Technology and the Technical Consultant to the Library Binding Institute. He can be reached at wtrebs@localnet.com.