

Formerly *The New Library Scene*



SHELF LIFE

VOLUME 1 • ISSUE 2 • FALL 2006

A NEWSLETTER FROM THE LIBRARY BINDING INSTITUTE

SHELF LIFE

On Demand Binding – LBI Member Survey Demonstrates Need for Resources and Information

By Debra S. Nolan— On September 22, 2006, the Library Binding Institute (LBI) board of directors discussed the future of the trade association while recognizing members’ increased business in on demand hard and soft cover binding. This year saw not only an increase in on demand binding work, but also two significant bindery mergers - ICIBinding Corporation merged with The Heckman Bindery to form The HF Group, LLC; Bridgeport National Bindery merged with Ocker & Trapp. As a result, there has been a slight decline in association membership dues revenue which may continue if more binderies merge. Given these trends, potential solutions related to LBI’s longevity were discussed including the formation of a sister trade association whose focus would be on demand binding. A survey of members was conducted last month to determine the level of interest and need for such an association.

The Respondents

Twenty percent of LBI member companies responded - a little less than half were LBI supplier members. Two-thirds of those responding consider LBI to be their primary association while the remaining one-third listed other organizations such as the Book Manufacturing Institute, the American Library Association, and the Printing Industries of America, among others, to be their primary associations.

The Responses

When asked if there was a trade or professional association, a conference or trade show, a website, or a publication which currently meets the needs of

From a recent survey of LBI members:

From your perspective, is there a trade or professional association, a conference or trade show, a website, or a publication which currently meets the needs of companies that provide on demand binding services?

	Yes	No	To a certain extent
Trade or professional association	11%	44%	44%
Conference/trade show	33%	22%	22%
Website	11%	56%	56%
Publication	11%	22%	22%

companies that provide on demand binding services, members had varying responses (see chart).

Those who answered “yes” to the question listed indicated the On Demand Show, *Book Business Magazine*, and the Book Manufacturing Institute were currently meeting these needs.

Those who answered “no” to the question indicated the following specific needs of an on demand binding market are not currently being met within the context of an association, conference/trade show, website, or publication:

Continued on page 2



THE ORIGINAL
HARDCOVER
BOOK BINDERS

"An association would be used to promote on demand binding. I envision the sharing of technical skills and informational sessions to promote better quality bindings. The website could also be used as a tool to deliver this information."

"There is no association that focuses on the production of short run hardcover and paperback books although there are trade shows that feature technology to produce these products."

Those who answered "to a certain extent" indicated the following:

"I recall seeing a couple of magazines for the on demand industry. While they might have some coverage of binding, I think the scope is extremely limited."

"Because specifications are still being worked on and are thus changing, there doesn't seem to be a concrete concise avenue to explore, gather information from, and test on-demand products."

"There are trade shows that focus on the market but they are there to serve the competing companies that sell products/services. There is nothing that fosters the development of the market such as exists with LBI."

When asked about the target market for an on demand binding association, 62% indicated companies that provide digital printing services, 62% indicated companies that provide short run on demand hard and soft cover binding, and 25% indicated that there is no single target audience.

When asked about the primary benefits of an on demand binding association, respondents indicated the following:

"Education and future progress into this business."

"Informing members of how to bind better books. Promoting new standards for the on demand industry."

"The opportunity to meet with colleagues to discuss common problems, to meet with suppliers of materials and machinery, and to learn about new technology and market trends."

On Demand Binding is the growth of the future.

When asked about "hot topics" that would be of interest to those who joined this association, respondents replied:

"standards and quality measures"

"machinery for soft and hardcover binding, print technology, software for prepress, lamination problems and solutions for digitally printed covers"

Finally, respondents provided the following additional comments:

"This is the growth of the future."

"An organization like this will promote better quality bindings."

"There is no real spur to form a new association or to establish print on demand standards since the market is driven by availability and speed."

"We need to take a leadership role in this and get it done."

While the majority of respondents seem to support the idea of an on demand binding association, there are many factors to consider. LBI will continue to explore this possibility and welcomes your feedback which can be sent to dnolan@lbibinders.org. 



Debra S. Nolan is the executive director of the Library Binding Institute and can be reached at dnolan@lbibinders.org.

When Cover Boards Start to Warp – Causes and Solutions

By Werner Rebsamen – Winter is approaching, causing many inquiries at this bookbinding expert's desk about why hardcover boards are warping. Cold weather generates low, relative humidity. All materials made from cellulose fibers are affected by atmospheric changes, such as high and low humidity. These fibers react accordingly. Books printed on paper and paper boards are no exception. Paper must adjust to any given environment. During these conditions, it is simply amazing what bound books are expected to absorb. During winter, books may be left in a car and freeze. How high is the temperature inside a car during a hot summer day? "Cooking" books is an

No matter what the weather condition or environmental fluctuations, in general, hardcover bound books perform extremely well under extreme circumstances.

expression not related to library books left in a car but you get the idea. No matter what the weather condition or environmental fluctuations, in general, hardcover bound books perform extremely well under extreme circumstances. Occasionally, book manufacturers are at fault when critical items - paper grain direction and many other items are ignored. Initially, hardcover bound products may perform well, but once they are subjected to extreme variables in storage environments, problems with board warping may occur. As more and more books are printed and bound abroad, such warping problems are unfortunately on the rise. On several occasions, this writer had consulting assignments on board warping problems in Asia; a part of the world where humidity is usually very high, especially in the summer. The bound products are then shipped via containers, spend several weeks at sea and thereafter are, in the winter, displayed in a book store to be sold during the

holidays. The minute these books are no longer in a stack and pressed, mother nature's fibers will react. The cellulose fibers begin to shrink and pull on the cover boards. Warped or distorted cover boards are often the results.

The complex make-up of a book cover

Hardcover bindings are not so easily controlled. You may ask, "What is the problem when a book case consists only of a cover material glued over paper boards?" As easy as it sounds, this is where the problems start. Paperboards are made from recycled paper fibers. Now just imagine how many different papers are found in a common waste pile—newspapers, magazines, card boards, and packaging materials. The selected waste paper stock is put into a pulping device and mixed with water. It is then broken down by centrifugal and mechanical actions. Thereafter, the mills start the manufacturing processes. The mills have different ideas of what constitutes high quality paper board. Mills have variable ratios to mix the various types of fibers, including natural kraft, bleached kraft, sulfite, bleached sulfite, and ground-wood. The results are many different kinds of paper boards available for bookbinding. You may be familiar with names like binders boards, multi-cylinder, and laminated boards. Each manufacturer and their suppliers market their own specialties who all offer different boards for various purposes. Just think of the many multiple calipers or given thickness paper boards are marketed. For example, small, thin books require thinner board. Large, heavy books require thicker boards. The paperboard industry is large. Boards for binding books are simply a small part of their business. Just look at a supermarket, particularly the cereal aisle and what is packaged into paperboards and you get the idea.

Now let's take covering materials. There are many different varieties and qualities of cloth, finishes, natural or starch-filled; some are made from cotton, polyester, rayon or a mixture. Then there are printed and laminated materials over various substrates,

Continued on page 4

non-woven cover-stocks in all kinds of finishes and extruded plastic-like materials. In short, there are many difficult to control factors, which all react differently to adhesives and the gluing process over paper boards.

Adhesives mounts play a major role to control cover warp. Edition book covers are made using animal glues and lately with hot-melts. Library binders and other binders use water-based PVA cold emulsion adhesives. In this category, many different kinds of adhesive formulas all play an important role. We must also consider the machinery used to make a book cover. Some edition binders utilize high-speed case-making equipment which produces up to 120 covers every single minute! Others may produce 8 to 60 covers a minute or less. Some book covers are made by hand, a relatively slow process. These differences in speed affect the forces being built into a cover structure.

And finally, we must consider covers are being wrapped around book blocks. Before the endpapers are glued to the cover boards, a coat of a water-based PVA adhesive is applied. For the casing-in tasks, bookbinders employ various type of machinery, which vary in speed. These speeds and the various formulas of water-based PVA casing-in adhesives do affect a potential cover warp problem.

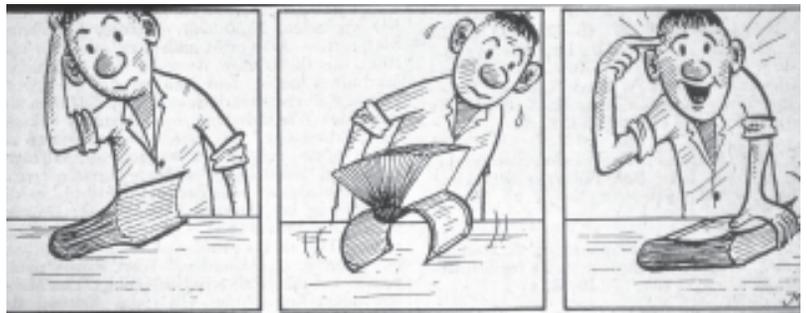
Why book covers warp

These different factors should lead to a better understanding of the fundamental relationships in the reactions of paper, boards, cloth and endpapers. When cellulose fibers are processed, they expand and shrink while adjusting to any given environment. As they absorb water, either in the case-making or in the casing-in processes, these fibers will absorb water by capillary action and grow in their diameter. In simple terms, fibers expand, four to five times their width, very little in their length. In a fast manufacturing process, the materials have virtually no time to grow or when drying, to shrink. Some materials expand and shrink more than others. A heavy coating of adhesives may also contribute to these important factors. An interesting factor may also be short paper fibers (all recycled papers have short fibers) which tend to

saturate more rapidly and therefore expand and contract relative quickly. Long-fiber cover-stocks are more stable and allow better control to balance the forces. What about cloth? Book-cloth fabrics react in much the same way as paper fibers. The warp threads, which travel the length of the roll, correspond to the grain direction in the paper and paper boards. They swell and shrink when exposed to a water-based adhesive.

An experiment to understand an imbalance of forces

Now let us take a piece of paper board and mount any given cover-stock onto one side. When you apply the adhesive, the cover-stock will grow in its width. Let it dry under a weight over night. If you



"Dummkopf was a Bookbinding apprentice featured every month in a German Bookbinding magazine in the 1950. This cartoon shows a warp problem. Ach sooooo - "Just hold them tight and the book will stay closed!"

expose this little test item to open air, the cover-stock being on top. It soon will start to bend, that is the board will warp upwards. Now repeat the same test and mount identical pieces to both sides of the board. Watch your timing and the amount of adhesives used. After drying overnight and exposure to open air, that sample piece of a cover board should stay perfectly flat. Now alternate those experiments with different grain directions! What do we learn from such an experiment? The main reason book covers warp is, most of the time, due to an imbalance of forces. Moisture is being taken on or given off at different rates by the various materials that make up a book. A good

Perhaps the most important factor in keeping book covers flat is the environment.

example to evaluate a problematic book cover is perhaps on some publisher's books which use the text-paper as a so-called self-contained endpaper. Many children's books are made this way. These types of papers may grow and shrink in an uncontrolled manner. What's worse, if the paper grain direction is perpendicular to the binding edge, you have a recipe for disaster.

Warp-free boards?

There are suppliers who advertise the use of "warp-free binder boards!" There is no such thing. All paperboards are subject to warping. Granted, some boards may be more resistant than others. Warping is not caused by the board itself. It is due to the unequal forces mounted to the board which subsequently cause warping.

Why control of a storage environment is so important

Would you believe we experience a warp problem with books over 500 years old? Over two decades ago, during one summer, our university's administrators decided to turn off the air conditioning system for the entire building to "save" money. After all, there were only a few summer courses being taught. It did not bother my classes too much as our labs were located in the basement. However, it did not take long before the curator of our rare book library, located in the same building, contacted this bookbinding expert and expressed his concerns, that some books bound in parchment- including those from the Middle Ages- started to "move." The covers started to warp outwards, in some cases, these forces were breaking the slip cases. What was going on?

Parchments are animal skins. Interestingly, such skins are still "alive" when it comes to adjusting to a different environment. As a fact, we bookbinders still have a lot of respect when controlling parchment covers. To keep them flat, some bookbinders use aluminum or Plexiglas as cover "boards." We solved the rare book libraries problem by inserting moist sheets between the covers and text blocks. Needless to say, we of course protect the text blocks with a sheet of Mylar.

Perhaps the most important factor in keeping book covers flat is the environment. The Library of Congress (LC), in a preservation leaflet, recommends an "ideal" temperature range of 55 to 70 degrees (wear a sweater!) and a relative humidity of 40 to 50 percent. However, LC admits that the upper temperature range is more realistic because no person wants to be in a library with a temperature of 55F degrees!

Digital, on demand printing and cover warping

A new trend is to sell a book first then print and bind it virtually overnight. Recently, this writer had the pleasure of being invited to such a sophisticated facility where every day, 7 days a week, 35,000 to 44,000 individual books are printed and bound on demand. Granted, the majority are soft-cover bound. However, in general, there are adherent problems with such new publishing endeavors. Digital printing is done with toners. In order to create conductivity, all the water must be taken out of the paper. That is a very harsh treatment for a natural cellulose fiber. After printing, the paper must recover and absorb water from the air. The text blocks then begin to get wavy. Worse, if the text blocks are hardcover bound, the lack of moisture may cause covers to warp. Why? The dry text blocks are "thirsty" and soak up the moisture needed to balance the cover structure. The wavy text also lifts the covers. Binders need to implement various "tricks" to control such factors. Libraries and individual buyers of books will need to adjust to such new, booming publishing endeavors.

Continued on page 6

Why library bound books virtually never warp

Perhaps the most respected standard for binding hardcover books in the trade is the new NASTA/ANSI/LBI specifications. Superior materials and controlled processes when binding library books assure simply the best quality of a certified binding. After a long career in bookbinding, this writer is not aware of any warping problems with library bound books. If so, these books most likely were improperly stored. For example, a cross-grained text block is exposed to excessive moisture. The content starts to become “wavy” and lifts the covers. Thus, it has nothing to do with the quality of the binding.

Finally, some solutions to control problems with warping boards.

If you find yourself with warped covers, here are some “hints” which may be of help:

Problem: If books dry out in the winter due to low humidity, the covers may warp.

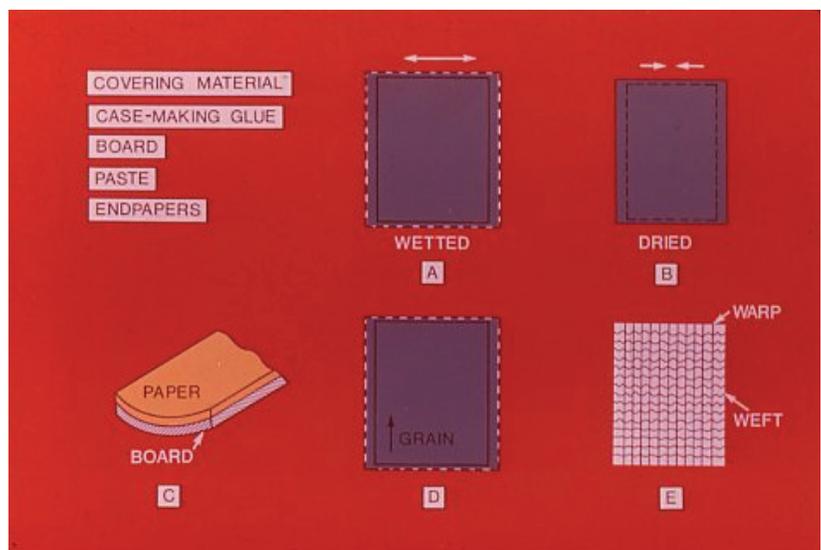
Solution: Take clean tap water. With a sponge, apply a thin coat of water into the inside of the covers. Be careful if the text blocks consist of coated paper stocks. If this is the case, insert a moisture barrier such as a sheet of Mylar between the cover and the text block. Overnight, leave a heavy weight covering the entire book. Do the same with digital printed and hardcover bound text blocks.

Problem: The book was on display for weeks. After being opened and fanned out for so long, it will no longer close. Or, during the summer, increased humidity and/or cross-grained text blocks get “wavy” and covers move upwards.

Solution: Insert books into a press or place heavy books on top of it, as long as possible, but at least overnight.

This writer has served as a “judge” or expert witness on many paper board warping disputes. Needless to say, as always, one party blamed the other. Some pointed their fingers at the boards, others at the

covering materials or the methods used in book manufacture. This article should have explained why book covers warp. As long as quality paper boards are being used, warping has very little to do with the paperboard itself. As one well-known paper board expert once stated, board warping is a bookbinders problem but as we now know, many other factors such as a dry text block, waviness, and storage conditions all may contribute to the problem. Increasingly knowledgeable publishing production managers, book manufacturers, binders and best of all, dedicated suppliers are all aware of what must be done to avoid such potential problems. Such good communication in this regard, at least on the North



“40,000 books bound in Asia arrived in this condition in the USA! ”

American continent, has paid dividends. This is why we are able to enjoy the exceptional performances of quality bound hardcover books in all kinds of environments, no matter if it is cold, hot, dry or wet. This itself is a great achievement. 📖



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.

Infringement Is Everywhere: Congress Addresses ‘Orphaned Works’



by Melise Blakeslee • Special to Law.com

An “orphaned work” isn’t an easily identifiable thing. A work is orphaned when the copyright owner cannot be found after a diligent search. This is not the same as an abandonment of the copyright. In fact, unless the work was created prior to 1923, the work most likely still is under copyright. And this creates a dilemma. A person wishing to use a copyrighted work without permission risks liability down the road. But the alternative is to forego the use, which has the effect of incrementally diminishing our culture of ideas and creativity.

Why is this Important?

Congress and the Copyright Office recognize that the problem of orphan works is real and growing. Because copyright registration is no longer required, an ownership record is unlikely to exist. In addition, as a practical matter, because the term of copyright has been extended for as long as 70 years from the date of the author’s death, there are relatively few new entries to the public domain. And if the work is that of a corporation, then the term is the shorter of 95 years from publication or 120 years from creation. Works published as early as 1923 might still enjoy protection in 2018!

With the passage of such lengthy periods of time, the ability to trace the copyright owner becomes more difficult. Copyright owners move. Authors die. Publishers cease to exist. Corporations merge or change name. Attribution is removed from photos. Internet content gets separated from its source of origin. For all of these reasons and more, our future ability to create new works using existing material is at significant risk.

The risk of liability is not to be taken lightly. Any infringing use (even a somewhat limited instance) is illegal but far too many people mistakenly continue to believe that they will not be caught. In this digital and very public Internet age, an infringing use is more detectable than ever before. In addition, damages can be significant. Should the previously unknown copyright owner appear and make a claim, the Copyright Act provides for an award of actual damages, and may, under certain circumstances and

the court’s discretion, provide for statutory damages of up to \$150,000 per infringing work, along with an award of attorney fees.

It is not an overstatement to say that our culture will be diminished under these circumstances. Libraries, archives and museums already complain that they will not distribute and display art, photos, illustrations, texts and letters when ownership is unclear. The Copyright Office predicts that material will become unavailable for documentary filmmakers. You may need to advise a client against building upon the work of another even though your client is more than willing to obtain permission. Even the reproduction on a reunion Web site of an official prom photo from decades ago becomes risky. Works of even earlier copyright eras are now protected for up to 95 years from publication with a copyright notice — and who knows where that prom photographer is today?

Lawmakers Take Notice

In response to this growing problem, Rep. Lamar Smith, R-Texas, introduced the Orphan Works Act of 2006 into the House of Representatives in May. The bill, H.R. 5439, proposes an amendment to the Copyright Act that would lessen the monetary penalties facing a good-faith user should the copyright owner eventually appear and make a claim. To qualify for reduced penalties, the good-faith user must prove that it made a reasonably diligent effort to locate the copyright owner prior to the allegedly infringing use. A diligent search includes the use of reasonably available expert assistance and technology.

Continued on page 8

Once it is established that a diligent search was conducted, the penalty is limited to a reasonable royalty fee. An award of full costs, including attorney fees, can still be awarded should the infringer fail to negotiate a fee in good faith. Should the infringer expeditiously cease to use the now-claimed work, then there might be no monetary penalty at all.

The Orphan Works Act of 2006 addresses injunctive relief by instructing the court to consider whether an injunction would harm the infringer due to its reliance on having performed a diligent search. It is not clear how this section is to work together with the royalty — clearly, a royalty cannot be paid for future uses if enjoined. In addition, the court is given absolute discretion in issuing an injunction. A well-intentioned user could still end up enjoined, even after a diligent search and the significant commitment of resources and time to the reuse of an existing work. This seems to undercut the balance of incentives.

The Orphan Works Act has met with stiff resistance by some commercial interests, such as the Advertising Photographers of America. They contend that without the threat of statutory damages and attorney fees, their rights are diminished. They further point out that they may never receive compensation for past uses should the infringer decide to cease use upon receiving notice of a claim.

Rep. Zoe Lofgren, D-Calif., has suggested an alternative approach. In the Public Domain Enhancement Act, H.R. 2408, which she introduced into the House of Representatives, she proposes the concept of a national registry system. She hopes to avoid the problem of orphaned works altogether. Under H.R. 2408, copyright owners could register

In this digital and very public internet age, an infringing use is more detectable than ever before.

their works in a national registry after 50 years. This proposal has the drawback of creating certainty only after a work has been published for 50 years. Title can become very dim in the meantime.

The Prospect of Passage

The Orphan Works Act of 2006 was marked up and moved out of committee very quickly in May. However, Congress is only weeks away from midterm elections, so further action seems unlikely. Nonetheless, the Copyright Office and others will undoubtedly continue to press for a solution. A solution will require this measure to be re-introduced in the 110th Congress after it reconvenes in January 2007. Anyone who is concerned about this issue should contact the House Judiciary Committee, and, in particular, members of the Subcommittee on Courts, the Internet and Intellectual Property. 



Melise Blakeslee practices intellectual property law and Paul Hatch advises on government strategies. Both are resident in the Washington, D.C., office of McDermott Will & Emery.

Reprinted with permission from the September 28, 2006 edition of the New York Law Journal. © 2006 ALM Properties, Inc. All rights reserved. Further duplication without permission is prohibited.

The Library Binding Institute (LBI), publisher of *Shelflife*, reserves the right to refuse copy which is not in accordance with LBI's established policies. Specifically, LBI endorses no machinery, equipment, material or supply or supplier thereof; other than the ANSI/NISO/LBI Z39.78-2000 Library Binding Standard, LBI endorses no method of binding.

Copyright 2006 by the Library Binding Institute. Subscriptions to *Shelflife* are available through most subscription agencies or you may write directly to LBI, 4300 South U.S. Highway One, #203-296, Jupiter, FL 33477. *Shelflife* is published quarterly in Spring, Summer, Fall, and Winter. Annual subscription rates are \$24.00 for domestic subscribers, \$26.00 for Canadian subscribers, and \$27.00 for international subscribers. Subscribers must submit a missing issue claim within 90 days from each specific issue's date of publication. If these terms are not adhered to, the publisher will be unable to fill the request. All manuscripts are welcomed for publication review. *Shelflife* is indexed in "Library Literature and Information Science Abstracts," ISSN 0735-8571.



Library Binding Institute

Library Binding Institute
4300 South U.S. Highway One
#203-296
Jupiter, FL 33477
(561) 745-6821
Fax (561) 775-0089
info@lbibinders.org
<http://www.lbibinders.org>

PRESORTED
STANDARD
U.S. POSTAGE
PAID
BOCA RATON, FL
PERMIT NO. 1535