Board Reattachment Discussion

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ABSTRACT

The presentations and subsequent discussions of techniques for reattaching detached book boards are summarized. The discussion was structured around four main themes: joint tacketing, Japanese paper hinge repair, board slotting, and other. Rebacking was not included in the discussion; rather, less invasive, less time-consuming repair methods were stressed in response to perceived interests and trends in the field. A methodology documentation form developed at the University of Texas was introduced by its authors; it is intended as a template for gathering information on board reattachment methods for a future chapter in the Book Conservation Catalog. Book conservators are encouraged to contribute to the development of the chapter by filling out a form and sending it to the address given (see Appendix 6).

INTRODUCTION & SCOPE OF DISCUSSION

The goal of this discussion group was to share information, comments, and experiences about methods of addressing one of book conservation’s most common repair tasks, the reattachment of detached cover boards to books with little or no other damage. Although the discussion was not formally limited to leather bindings, emphasis on these objects occurred naturally, since it is these bindings that most frequently fall victim to board detachment as the leather deteriorates, dries out, and can no longer withstand the rigors of constant flexing at the joint. Traditional rebacking methods were excluded from this discussion on the grounds that they are already well-documented in the literature and that many alternative techniques have been developed specifically as ways to avoid rebacking. While rebacking is appropriate and necessary in many situations, conservators also need a repertoire of other techniques that are less invasive, less time-consuming, and that require fewer specialized craft skills. Less invasive techniques have obvious advantages where preservation of an historic book structure is paramount. Faster treatment methods are a necessity where there is a need to stabilize large, non-rare collections efficiently, as in a production-oriented collections conservation unit, or where funds are limited for the repair of a single item, as is frequently the case for conservators in private practice. Simpler repairs that do not require advanced leather-working or book restoration skills make it possible to handle older collection materials within the normal work flow of a general collections repair unit staffed by technicians or students, while still respecting the nature of the original artifact. As always, when choosing among the various treatment options, conservators must weigh all of these factors and ultimately decide what is appropriate within the given context of condition, use, storage, and intrinsic value of the artifact.

When the moderators planned the discussion session, they elected to organize it around what seemed to them to be the dominant themes in current practice. The categories were defined as: tacketing, Japanese paper hinge repairs, board slotting, and, of course, other. As anticipated, there were many possible variants on each technique, and some methods discussed were hybrids of two or more of the broader categories. Discussion of each category was kicked off with one or more short presentations describing specific techniques. A summary of each presentation and of any subsequent discussion follows. For details or further explanation, readers are encouraged to contact the presenters directly or consult the print sources listed in the bibliography prepared by Renee deVille (Appendix 1).
SUMMARY OF PRESENTATIONS AND DISCUSSION (IN ORDER OF APPEARANCE)

I. Other

A. Inside Cloth Hinge

The first presenter was Betsy Palmer Eldridge, who described a technique she referred to as the inside cloth hinge. This repair, which Betsy described as one of the “older” techniques, was used in Carolyn Horton’s workshop in New York City during the 1960s and 1970s. Betsy stated that she finds this technique particularly useful for nineteenth-century sets and considers it one of the least invasive options for these materials. It is similar to a technique published by Middleton (1998).

The basic procedure involves a cloth hinge saddle-sewn (rather than overcast as in Middleton’s method) through the shoulder of the book block, adhered to the shoulder and inside board edge, and then either inserted under the pastedown or pasted down onto it to form a new attachment between the board and the book block. A layer of paper that is visually compatible with the endpapers may be pasted down over the cloth on the inside. The hinge can be made from a colored cloth that blends with the exterior of the binding. The small gap that remains at the joint on the outside of the cover afterwards may be blended in or disguised with leather dust if the book is covered in leather.

Structurally, the repair creates a strictly internal connection for the board (that is, there is no point of attachment on the exterior of the boards or spine). The hinging point of the board is at the top of the shoulder, making it most appropriate for tight-joint books. It also must be noted that the spine covering has to be removed to carry out this repair, making it especially attractive for books with hollow backs. The time required is less than one-half hour per board.

For Betsy’s step-by-step description of the inside cloth hinge, see Appendix 2.

B. Pleated Paper Hinge

The second presenter was Elaine Schlefer, who talked about another technique that was used in the Horton workshop. It consists of an internal Japanese paper hinge that is attached to the shoulder with adhesive, pleated back on itself, and inserted under the covering material on the outside of the book (see Appendix 3).

Elaine uses this method for very deteriorated tight back books, as the spine covering does not need to be lifted. However, the board must be completely detached for this repair to be used. Elaine has found this technique successful even for large and heavy books.

Discussion of the Pleated Paper Hinge

It was observed by both Elaine and the group that the endleaves must be firmly attached and the text block solid for this technique to be used; therefore any page repair or spine consolidation must take place prior to board attachment.

Some people prefer to add a cosmetic overlay of toned tissue or thin leather to cover the outside of the joint, although it was observed that so little of the tissue generally shows that this step is often not necessary.

There was some discussion of whether it was desirable to use PVA (i.e. polyvinyl acetate dispersions such as Jade or Elvace) rather than starch paste to readhere old leather that had been lifted or had become detached. Because of their quick drying properties and relatively low water content, PVAs are often used where there is fear that contact with the moisture in starch paste will cause blackening, shrinkage, and stiffening of deteriorated vegetable-tanned leather—despite the fact that PVA bonds are not easily reversed. One person reported good success with pre-sizing the underside of the old leather with a coat of paste, which is allowed to air dry completely without setting the leather down. A second coat of paste is applied for setting down; the first layer acts as a barrier and prevents too much moisture from wicking through to the surface. Another colleague uses Lascaux 360, an acrylic that, unlike most PVAs, is reversible in a range of solvents when dry. While it is not likely that the Lascaux resin could be removed completely from the old leather using solvents, a solvent-based repair system may be safer for very deteriorated leathers than an aqueous one.

C. Split Linen Flange

A third technique was presented by Beth Ryan, on behalf of David Brock. The head and tail panels of the spine covering are lifted. The exposed spine panels are lined with strips of airplane linen cut wider than the spine. The overhanging flanges are split horizontally. Half of each flange is inserted under the board covering, while the other is taken to the inside of the board and inserted under the pastedown. David has published this method in the Abbey Newsletter (see Appendix 4).

This repair can be used in both general and special collections, and is especially useful for tight-back books. It does require some lifting of the old spine, but this is limited to the head and tail panel. Modifications are possible to avoid or minimize the need to lift the entire panel (Primanis 2000).

II. Joint Tacketing

Joint tacketing is a technique that provides mechanical board attachment via thin linen cords or threads that are anchored to the text block by looping them through holes drilled or stabbed through the shoulder. The free ends of
these threads are then laced through small tunnels drilled at an angle into the spine edge of the board, emerging on the inside at a short distance from the spine edge. To anchor the tacket holes through the spine edge, the threads are either tied together or frayed out and stuck down on the inside of the board. The number of tackets may vary, but generally corresponds to the number of broken original sewing supports. The technique and some of its variants have been published in articles by Cains and Swift (1988), Espinosa and Barrios (1991), and Primanis (2000).

Mary Baughman was the presenter for this category and described the technique as it is currently practiced at the Harry Ransom Humanities Research Center (HRHRC) at the University of Texas in Austin.

At the HRHRC, a Japanese paper hinge is usually added on the inside and sometimes on the outside of the joint to supplement the thread tacket. This adds extra support and stability, preventing undesired movement of the board. These hinges can be colored to match the covering materials or end papers to obtain a better cosmetic result. Based on her experience, Mary stressed the structural importance of the internal hinge for the long-term stability of the repair. She also pointed out that tacketing can be easily combined with other attachment methods like cloth hinges and flanges inserted into split boards, both of which provide an additional attachment site to complement the tacket.

Mary often consolidates the old covering leather with Klucel G, to stabilize it as much as possible before carrying out the rest of the repair.

If the spine folds are exposed at all, she sometimes lines the affected area with tissue to consolidate the attachment of the gatherings prior to stabbing the holes through the shoulder. To prevent fragments of text paper bursting out through the spine and becoming detached when the needle is pushed through, she supports the spine with a piece of Plexiglas during this operation.

For Mary's documentation of this technique, outlined on a form she developed to aid compiling board attachment methods for the Book Conservation Catalog, see Appendix 5. For a blank form on which to record your own methods and submit them to Mary for the Book Conservation Catalog, see Appendix 6.

**Discussion of Joint Tacketing**

Follow-up discussion from the group described variations on ways to finish the tacket without tying a knot. Where it is not considered visually problematic, some people simply fray out the ends of the threads and paste them down onto the inside board face, on top of the pastedown. If the tacket must be less obtrusive on the interior, the ends of the threads can be hidden underneath the pastedowns or covered with paper patches.

Several people expressed a preference for using a needle instead of a drill for making the tacket holes through the shoulder of the book. The material that is pushed aside by the needle can be pressed back into place around the tacket thread, helping to seat it more firmly than when a tunnel is cleared out using a drill. One person suggested taking some of the twist out of the tacketing thread to make it softer and less likely to cut or pull out through the shoulder.

Other comments pointed to a consensus among those present that the shape of the shoulder does not seem to be important for the success of the repair. However, one person warned that tackets can fail when the shoulder is mobile (i.e. when the sections comprising the shoulder of the book open all the way back to the fold, rather than being fixed in place by adhesive and/or linings). There was agreement among some present that boxing after tacketing is an option, perhaps a necessity in some cases.

The time required for the “no-frills” thread tacket is about one-half hour; cosmetic integration of the repair or addition of complementary hinges increases time and cost.

### III. Board Slotting

Board slotting as a production repair method for nineteenth-century books with very thin covering material at the joints was originally developed by Christopher Clarkson at the Bodleian Library, using an industrial milling machine. The method involves milling out a slot in the spine edge of the detached board, creating a space into which a new cloth flange extending from the spine is inserted to form the new attachment. The technique is most easily used on books whose spines can be easily lifted to allow attachment of the flange, e.g. those sewn on recessed or flat supports, or those with hollow tubes.

Friederike Zimmern demonstrated the board slotting technique and a purpose-built machine that she helped develop in conjunction with the German engineering firm Becker Preservotec. The design of the new machine reduces the time required to execute the repair. Using the new machine, the technique requires about fifteen minutes per book, not counting time for color-matching and other cosmetic procedures. Friederike's detailed description of her work on slotting and a list of references on the technique can be found in the *Book and Paper Group Annual*, volume 19 (Zimmern 2000).

Friederike observed that the durability of the repair depends on the fold endurance of the repair cloth and on the stability of the adhesive used to stick the cloth into the slot. She tends to use cotton rather than linen, due to its greater fold endurance. PVA and gelatin are both somewhat stronger than paste for bonding the repair cloth in the slot, but she feels that starch paste forms a more than adequate bond.

Some advantages of this repair are:

- No effect on gilding or other surface decoration
IV. Japanese Paper Hinge Repair

This type of repair was developed and refined by Don Etherington in the 1980s and is now in widespread use in the U.S. The basic method involves attaching detached boards using two adhered strips of Japanese paper, running the whole length of the joint, one on the inside and one on the outside. The papers may be toned, waxed, or burnedished to match the original covering or not, as appropriate. A popular material for the external hinge, especially for general collections, has been moriki paper, which is available off the shelf in a variety of deep, opaque colors. The success of the repair depends on the strength and flexibility of the Japanese tissue and on forming a solid adhesive bond between the repair strips and the original binding parts. Adhesive preferences vary with the individual, but there seems to be general agreement that PVA or PVA mix forms a stronger and more reliable bond between the repair paper and the old leather than starch paste, which also carries the risk of blackening degraded leather. This repair, and numerous others presented during the session, is described by Middleton (1998).

Eric Alstrom was the spokesperson for this technique, and he presented two variants used in his lab, one for tight-back books and another for hollow backs (see Appendices 7 and 8).

Discussion of Japanese Paper Hinge Repair

Discussion brought up the following comments and observations:

Solutions of Kluce G in ethanol used to consolidate friable leather can actually dry out the surface of the leather and cause it to flake. This can in turn exacerbate the problem of separation of the grain layer from the corium beneath. If a repair strip is anchored only to the surface of a poorly-attached grain layer, the repair inevitably fails when the leather splits. To create a firmer point of attachment, some people scrape away the outer layer(s) until they reach material that is more cohesive—either an inner layer of the leather or the surface of the board itself. Others lift the old leather and insert the outer repair paper underneath. This increases the time required and disrupts the existing binding to a greater degree, but it does address the problem of the repair popping off when the cover is opened.

A mixture of Kluce G and the Leather Conservation Centre's SC6000 acrylic and wax emulsion was offered as an effective consolidant for friable leather.

On the subject of Kluce G dissolved in ethanol used as a consolidant for friable leather, it was generally agreed that despite its widespread use for this purpose, leather coated with Kluce G remains vulnerable both to mechanical damage from external sources and to continued flaking and crumbling from within. While Kluce G provides an unobtrusive, matte, and reasonably stable surface coating, most people felt that it is really not very effective at increasing cohesion between the grain layer of leather and the friable layers beneath. However, in the absence of any acceptable material that is more robust or that penetrates better, a surface application of Kluce G (brushed or sprayed) seems like a benign enough treatment that may provide some benefits, especially for the immediate containment of red-rot.

ADDITIONAL DISCUSSION TOPICS

Some final remarks as the scheduled discussion time was ending included a plea for the documentation and recording of original spine linings that are exposed during treatment. Conservators are often the only people ever to see these interesting historic binding features, and we should take the responsibility of documenting them before they are either removed or concealed again under new repair materials. A fascinating photo archive of manuscript fragments, printer’s waste, and decorative papers used for spine linings could eventually be compiled from various conservator’s records. Where appropriate, boxing could be considered as a substitute for repair, in order to preserve access to interesting or significant spine linings.
FINAL THOUGHTS

Although a bit pressed for time, the presenters and the rest of the discussion group managed to pack in a great deal of information and to engage in a very free exchange of experiences and ideas. A good indicator of the vitality of the topic was that discussion continued among smaller groups after the scheduled session was over.

The range of ideas presented and discussed was evidence of persistent inventiveness in book conservation. While new techniques and materials are constantly being tried, older, time-tested techniques are also being retried, modified, reexamined and updated. This interweaving of old and new has resulted in an expanded menu of repair options that can be tailored very effectively to the needs of individual artifacts and binding structures, and to the financial and staffing constraints of institutional repair facilities or clients with limited resources.

The fact that numerous current techniques are adaptable to a wide range of materials helps compensate for the sliding scale that exists within library collections for the definition of “rare.” Books that would certainly be in closed rare-book stacks in a small or special library exist in huge numbers in the open stacks of large research libraries. The development of sensitive yet time-efficient repair methods for these books alleviates the potential ethical dilemma posed by the need to treat older or artifactually significant items in a production book repair unit.

Book conservation seems sometimes by nature to involve procedures that are more invasive than would be considered acceptable for most museum artifacts. This is largely due to the fact that despite ongoing projects to digitize library materials, most books are still used, and working parts must continually be replaced in order for a book to serve its function as a textual research tool. The constant search for less invasive repairs, that minimize the visual and structural disruption to historic bindings yet impart enough strength to allow a certain amount of handling, is an ongoing challenge. The ideas presented at the discussion group in Dallas, and those contained in the sources listed in the bibliography (Appendix 1), show that book conservators are rising to meet that challenge.

Compiled and respectfully submitted, with apologies to the participants and presenters for any errors of fact or interpretation. The moderators are grateful to the subject coordinators, the presenters, and to the assembled group for their contributions to this shared body of information.

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APPENDIX 1: BOARD REATTACHMENT: A WORKING SELECTIVE BIBLIOGRAPHY OF TECHNIQUES, STRUCTURES, AND GENERAL REFERENCES

The terms following each reference are brief notations of the categories that define this bibliography: technique, case study, conservation design/structure, and general.

- **Technique** refers to all articles that mention or define particular board reattachments.
- **Case study** is used to differentiate references that utilize a specific technique to perform treatment on a single item or a collection of specific materials.
- **Conservation structure/structure** refers to articles that discuss either the history of book structures as they relate to contemporary conservation designs or articles that define new structures for treatment rebinding.
- **General** includes articles that may serve as references discussing structure, history, or materials and which were selected because they relate directly to the topic of board reattachment.


BookLab, Inc. n.d. A sewn boards binding for library and limited edition work. BookLab Booknote 8. (design/structure)

BookLab, Inc. n.d. Historical prototypes for conservation...
binding. BookLab Booknote 9. (conservation structure/design)


Brockman, J. 1995. Rethinking rigid spine. New Bookbinder 15:12–17. (binding design—concave spine attached with flange)


binding. *Book and Paper Group Annual* 7:23–27. (case study)


Select a book cloth that matches the color of the covering-in material or that complements the endpapers (alternatively, size and color one to match). A paste-sized, plain white cloth of an appropriate weight may also be used. Cut a hinge the height of the text block (or a little longer) and roughly one inch wide, depending on the size of the book.

Tip the hinge, face side down, onto the top of the shoulder of the text block with a narrow bead of quick drying adhesive. Stab though the shoulder with an awl at regular intervals (roughly one-quarter of an inch, marked off with dividers) into a cork that is used to support the outside of the spine.

Sew the hinge on through the stabbed holes using a harness stitch (a saddle stitch). Start from one end, using double needles to minimize the stress on the hinge (which at this point can also incorporate an endpaper or a text section). Avoid overcasting and whipstitching, which leave bumps on the top of the shoulder.

Fold the sewn-on hinge back up on itself and adhere it to the shoulder. When dry, fold it back down on itself again (onto the text block) with the fold of the hinge carefully parallel to the top of the shoulder. Crease the hinge with a bone folder at the base of the shoulder to create a seat for the board.

Glue up the spine edge of the old board with a bead of adhesive and place it in position on top of the hinge (which lies on top of the text block) with the squares carefully aligned. Tie up the book firmly with tape or an elastic bandage to apply pressure to the joint area.

When it is dry, the board can be opened up. It will hinge and pivot properly on the top of the shoulder. The remaining part of the cloth hinge can then either be neatly trimmed down to approximately one-quarter to one-half of an inch and glued directly down onto the pastedown on the inside of the board, or alternatively can be worked in under the pastedown. That decision generally depends on whether or not it is possible—or worthwhile—to try to lift the pastedown. Either way, the board will be quite securely attached.

At that point, various esthetic options are possible. One is to cover the inside of the cloth hinge with paper to improve the visual end result. In the case of a decorated endpaper, the paper covered inside hinge can be painted to match the pattern, or in the case of a plain colored endpaper, can be colored or camouflaged with chalk or pastels. Similarly on the outside of the cover, any small gaps at the joint can be camouflaged with old leather scrapings pasted into the gap, as suggested by Bernard Middleton.

The entire procedure rarely takes more than thirty minutes per board. Reattaching two boards and replacing the spine with a new paper or cloth hollow tube can usually be accomplished in less than an hour of bench time.

Suggestions or additions to this list are welcome.

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APPENDIX 2: THE INSIDE CLOTH HINGE

A repair technique suitable for books with a tight joint and hollow-back structure, bound in either full or partial leather, typical of the late nineteenth century. It provides a connection between the text block and the board on the inside of the joint, similar to an endpaper connection. When extra strength is needed, it may be combined with other techniques that provide a connection on the outside of the joint, such as a traditional covering-in material, or a connection in the middle of the joint, such as a sewing support or extended spine liner. Even when used alone, it can be a relatively strong, quick, inexpensive, non-invasive repair method. The steps are as follows:

Remove the old board, and either remove the hollow tube spine entirely, or slit and open it on the side to be repaired.

bookbinding)
The process is not a new one. It is well described and diagrammed in Bernard Middleton’s book, *The Restoration of Leather Bindings* (pp 94-99). There it is called an “overcast cloth joint” and is combined with additional attachment techniques. For large, heavy books such as lectern bibles, every possible device—inside, outside, and middle connections—needs to be used to gain enough strength over the joint area to reattach the boards. But in many situations with smaller or lighter weight books, only one or two types of connections may suffice. An inside cloth hinge that makes no attempt to disturb the thin, brittle, degraded covering-in material on the outside may prove to be a good choice. It is not a restoration, but a simple, honest, sympathetic repair.

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APPENDIX 3: PLEATED PAPER HINGE

This technique can be used only on books that have a substantial shoulder and a firm and secure text block. It is most useful for tight-back bindings whose spines cannot be removed easily.

1. Completely sever any remaining connection between boards and text block. Clean off the spine edges of boards and trim off any cord remnants. Carefully lift the board leather for an inch or so from the edge of the boards. (If the book is half- or quarter-leather; the board covering should be lifted to the edge of the leather).
2. Remove the first fly leaf if it is tipped on. (If it is sewn on, a new flyleaf can be added later.)
3. Use sized Japanese tissue to form the hinge. Moriki works well and often can be color matched to the binding without dyeing. Paper can be sized with methyl cellulose or with PVA/methyl cellulose mix. If coloring is required, acrylic paint mixed into the methyl cellulose works well. (Very little of the hinge will be visible on the outside, so coloring may not be necessary.)
4. Cut the paper to the exact height of the boards and about three inches wide. Tear one edge with a water pen. Crease sharply (valley fold) along the length about one-quarter inch in from the torn edge (fig. 1).
5. Paste up the one-quarter inch area and the shoulder area of the book, and attach the hinge to the text block and the shoulder. Rub well until dry. The hinge should be centered top to bottom, matching up exactly with the spine. The excess paper at the head and tail of the text block will be trimmed off later.
6. Crease the paper sharply at the top of the shoulder and fold it down along the shoulder to the text block.
7. Crease sharply at the point and bring the rest of the paper back up to the top of the shoulder.
8. Crease sharply once again at the top of the shoulder. Now you have formed a pleat.
9. From the last crease, measure the hinge to the desired width and cut off the excess paper.
10. Glue out the exposed board area and the spine edge of the board. Attach the hinge, pushing the board snugly back into the shoulder (make sure the pleat is between the board edge and the shoulder).
11. Place polyester film between the lifted leather and the paper hinge to prevent the leather from attaching to the board at this stage, and also between the text block and the board. Give the book a firm nip in the press in this position.
12. Remove the book and gently pull the board forward, opening the pleat. Glue up the interior of the pleat with mix and press the board snugly into the shoulder area. Bandage the book firmly (first protecting the spine area with waxed paper) with an elastic bandage. Allow to dry completely and remove the bandage.
13. Check inside to make sure the hinge is firmly attached along the edge of the board.
14. Tip or hinge on the old flyleaf (or a new one).
15. Trim off the excess paper at head and tail of the text block.
16. Glue down the leather on the cover.
17. If necessary, touch up the color of the hinge area inside and outside.
18. Repeat the entire procedure for the second board.

Remember that the board should be positioned before gluing up by using a right angle to assure proper alignment of the front and back boards.

APPENDIX 4: SPLIT LINEN FLANGE

This is a technique I have been using at Stanford for the past two years to reattach the boards of leather-covered tight-backed books, sewn on raised bands. It involves lifting the spine leather, board leather, and pastedowns at the head and tail only.

The steps are as follows:

• At the head and tail spine panels, make a cut through the leather near the base of the band, going from shoulder to shoulder.

• Lift the spine panels

• Paste wash the spine to remove any deteriorated spine linings and adhesive.

• Paste a light Japanese paper lining on the spine.

• When the Japanese paper lining is dry, secure loose or broken endbands with thread.

• Adhere with PVA an airplane linen or cotton lining. The cloth should be cut on the bias and extend one-half to one inch beyond the shoulders and go from near the base of the band to the end of the spine. If the spine has endbands, extend the cloth onto the endbands to help anchor them a little more strongly to the text block. It is important to work the PVA well into the cloth, as the strength of this mend depends in part upon a strong bond between the cloth and the text spine. The cloth can be dampened slightly during the boning to achieve greater adhesion.

• Determine now if further spine linings are needed to support the spine when the book is opened.

• Lift the leather and pastedowns of the boards at the head and tail.

• Cut the extensions of the linen lining in half and fray out the edges.

• Place the boards in position on the book. Using PVA, adhere the outer half of the extensions to the boards, going underneath the lifted leather. Allow to dry.

• Open the boards and glue (PVA) the inner half of the extensions to the boards, going underneath the lifted pastedowns. When dry, readhere the pastedowns.

• Before gluing down the lifted leather, adhere a wet-torn strip of Japanese paper over the linen showing in the joint. I usually use a heavyweight Uda. This strip should begin slightly underneath the lifted board leather and extend a little way onto the spine. This will hide the weave of the linen and add strength to the joint. Color the Japanese paper to match the leather with artist’s acrylics mixed in a little methyl cellulose. Mixing the acrylics in methyl cellulose slows down their quick drying time and makes their application easier.

• Readhere the lifted board leather and spine panels.

• Open the boards and paste a strip of suitable weight Japanese paper in the hinge area, running from head to tail and from the base of the shoulder to the top of the board. This adds a little to the strength of the attachment and gives a neater appearance to the inside of the covers. The narrow line of paper that shows in the joint when the boards are closed can be colored with the acrylic paint/methyl cellulose mixture to match the leather.

I’ve successfully used this method of board reattachment on large (quarto) and small books, with a few variations depending upon the weight and size of the book. While this technique doesn’t entirely replace leather rebacking in my conservation work, I’m finding that I use it more often.


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APPENDIX 5: JOINT TACKETING (PAGES 74–78)

A description of joint tacketing as an alternative to rebacking was distributed during the discussion session,
using a standard format drafted for the Book Conservation Catalog (see also Appendix 6).

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APPENDIX 6: ALTERNATIVES TO REBACKING—BLANK FORM (PAGES 79–81)

The Board Reattachment: Alternatives to Rebacking session at the AIC meeting in Dallas provided an opportunity to present this form and an example of a treatment procedure that can be described using the form. I developed the form, in consultation with Chela Metzger, in the hope that the form will be used as a tool to compile a section for the AIC Book Conservation Catalog. Since the meeting I have received two responses from conservators who used the form to describe a Japanese paper hinge repair (Kristen St. John) and cloth hinge/spine lining repair (David Brock). I welcome the interest of other conservators and will be happy to send an electronic version of the form to anyone interested in this project.

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APPENDIX 7: JAPANESE PAPER HINGE REPAIR FOR TIGHTBACK LEATHER VOLUMES (PAGES 82–83)

APPENDIX 8: JAPANESE PAPER HINGE REPAIR FOR HOLLOWBACK LEATHER VOLUMES (PAGES 84–86)

Instruction sheets developed for use at the Baker Library, Dartmouth College, were distributed at the discussion session.
Board Reattachment Discussion

Procedure

Removal of previous repairs or restorations
- Old repairs at the hinge or joint that might interfere with the jacket treatment may be removed.

Consolidation of materials
- Powdery leather covers may be consolidated with a solution such as Klear-C.

Preparing the text block
- Reattach and repair loose gatherings at the front and back of the text block so that the attachment of the jackets will be secure. If only the first and last gatherings are loose, the jackets can help to secure these gatherings. Pierce the spine from the base of the shoulder through the backs of the gatherings. Insert the thread. The number and spacing of jacket threads is determined by the dimensions of the text block.
- The bump-in, bump-out question: both methods work.
  - Bump-in - The loop of the thread exits the hole on the spine (as shown in the illustration by Mary Baughman). The loop is pulled up to the shoulder and the two ends of the thread go through it to anchor it at the shoulder. The loop is under the threads at the point where they go over the shoulder.
  - Bump-out - The two ends of the thread exit the hole on the spine (as shown in the illustration by Olivia Primani). With the bump-out method, the loop is on the outside of the threads at the point where they go over the shoulder. In theory this prevents the loop from sliding back across the spine.

Preparing the spine and the back of the text block
- Tight back binding - If the jackets are allowed to show on the outside of the covering material, it is not necessary to prepare the spine. For a tight-back book with raised sewing supports or raised bands, position the jackets near the supports, but avoid damaging or obscuring the sewing of the text block, and the areas where supports are attached to the boards. After the board is reattached, color the tacket thread to make it less visible on the spine.
- Tight back binding - To conceal the jackets on the outside of the spine covering material, lift small areas of the spine covering material at the jacket sites.
- Hollow back or case binding - Release at least one edge of the spine covering along the shoulder. The text block back can be lined with paper, cloth, or both before the tacket holes are pierced. For more strength and a smoother spine, the back can also be lined after the tackets are inserted. The effect of multiple linings on the "operability" of the text block must be considered.
Preparing the board and attaching the joint tacket threads

- No board preparation is necessary if the tacket threads will be tied on top of the pastedowns. Pierce the board through the pastedown. Each tacket thread site has a v-shaped channel. Both threads in a pair enter the hole at the gutter edge, then each thread branches to an exit hole. Knot the thread ends, soften the knot with paste, hit the knot with a backing hammer to diminish the knot lump. After the tacket threads are frayed out and adhered, they can be left visible or concealed with paper patches. For a small or lightweight book the threads can be frayed out and pasted down without the knot.

options -

- Lift the pastedown along the gutter edge of the board so that the tackets can be concealed under the pastedown.
- Lift only small areas of the pastedown and a few layers of the board where the tackets will be tied. Readhere these small areas after tying the tackets. The boards must be fairly thick for this technique to be successful.

Inner hinge - guard

- Adhere a Japanese paper guard along the inner hinge. After the tacket threads are inserted and adhered to the boards. For large books, use a cloth guard.
- For a more aesthetically pleasing repair, two paper guards can be used: Japanese paper for strength, and over it, a paper that has been adhered to blend with the endpaper.

Outer joint attachment

- Strips of leather, cloth, or paper can be adhered over the joint after the tacket threads are inserted and adhered to the boards.

Treatment variations

- The joint tacket can be used with stab joint endpaper and/or with a hinge under the pastedown.
- It can be used with other board reattachment techniques, such as a split hinge.
Board Reattachment Discussion