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A Simple Book Repair Manual

<www.dartmouth.edu/~preserve/tofc.html>

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Preservation Services

Table Of Contents

I. INTRODUCTION AND ACKNOWLEDGEMENTS
   A. A. Guiding Principles of Book Repair
   B. Parts of a Book
   C. Setting Up the In-House Repair Area
   D. Some General Guidelines and Practical Advice
II. IDENTIFICATION OF MATERIALS APPROPRIATE FOR IN-HOUSE REPAIR
III. TEN SIMPLE REPAIRS
   - Self-closing Wrapper
   - Book Cleaning and Erasing Pencil Marks
   - Torn Pages
   - Tipping in a Single Page
   - Hinge Repair
   - Corner Cover Repair
   - Binding a Single Signature Pamphlet
   - New Spine with Original Spine Remounted
   - Wet Books-the Air Dry Method
   - Hinge Tightening
IV. THE BOOK REPAIR TOOL BOX
V. GLOSSARY-- a link to the Roberts & Etherington "Bookbinding and the Conservation of Books: A Dictionary of Descriptive Terminology"
VI. BIBLIOGRAPHY
VII. COMMENTS

VI. BIBLIOGRAPHY
VII. COMMENTS

US Department of the Interior
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A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Acknowledgments

There is extensive information available on simple book repair; these instructions have pulled together ideas and procedures from a variety of sources. The following people and sources have been particularly helpful in assembling the **Simple Book Repair Manual** and subsequent web document.

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Staff of **Preservation Services** created and designed the web site and all accompanying graphic materials. Laura Ward was responsible for transforming the text to HTML and for graphic design; Brian Markee for all photographs and video, and Barbara Sagraves for overall design and content accuracy.

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Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

GUIDING PRINCIPLES OF SIMPLE BOOK REPAIR

Reversibility: Any treatment applied to a book should be reversible, that is it can be undone easily at a later date. If only the equipment, supplies, and techniques outlined in this manual are used, reversibility should not be a problem. In reality, only enclosure of the book (as in boxing) is truly reversible.

Do No Harm: This is a corollary to reversibility. If a repair seems difficult or you think you do not have the skill to complete the repair, set the book aside.

Expediency: Almost any non-brittle book can be repaired, given enough time and the proper equipment. Simple book repair implies that the repair will not take hours or days of staff time. As you become more comfortable with simple book repair, the decision to repair in-house versus sending the book to a commercial bindery will be easier to make.

Requirements:

- The order of pages must be preserved regardless of the repair or reformat.
- Books must have a protective cover to the pages.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

PARTS OF A BOOK

a. Board
b. Crash (also known as mull or super)
c. Endsheet
d. Flyleaf
e. Fore-edge
f. Gutter
g. Head
h. Hinge
i. Joint
j. Lining
k. Paste down
l. Spine
m. Spine piece
n. Square
o. Tail
p. Text block

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

SETTING UP THE IN-HOUSE REPAIR AREA

Training: This manual outlines 10 very simple repairs that can be successfully done by staff with proper training and simple supplies. Dartmouth Library Staff having gone through the repair workshop should feel confident in handling these repairs. Additional or more extensive conservation work must be handled by staff trained in book conservation.

Work Area: The best work area has a large washable table surface, adequate room to work. Floors should be bare. Proximity to the commercial binding prep area, an elevator (if needed), and circulation services is extremely useful.

Storage: While many items will be kept near the work area, a supply of regularly used items and expensive and/or seldom used items need to be stored in a conveniently located area. This locked area should be inventoried and one staff member responsible for maintaining an adequate amount of supplies on hand.

Equipment and Supplies: A section of this manual is entitled **Book Repair Tool Kit**. It contains a full list of the most commonly needed equipment and supplies. Such equipment as book presses, hand tools, and items such as brushes should be of conservation quality and appropriate for book repair. While the best equipment and tools may not be necessary, good quality equipment, while initially more expensive, will be a better long-term investment. A precision cutter such as a board shear, while being the most expensive piece of equipment, will be worth the investment because of the time saved in better cutting accuracy and ease of cutting.

Supplies should always be 'archival quality'. The terms 'archival quality' and 'acid free' are frequently used in describing conservation supplies. Briefly, 'archival quality' means lignin free. Lignin is the sticky stuff that makes plants stand up straight. Archival quality products are not only lignin-free but also buffered. Buffering neutralizes acid AND is a treatment that slows down future deterioration of an item. 'Acid Free' means that the term is pH (7) but does not have the buffering additive that protects it from acid migration. A good example of this is an acid free enclosure that is used to protect a brittle book. Eventually, the enclosure will also become acidic.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

SOME GENERAL GUIDELINES & PRACTICAL ADVICE

1. Keep your repair tools in good repair, clean and well-sharpened.
2. Keep the work area clean. After completing repairs put tools and supplies in their proper storage location.
3. Some of the tools you will be working with are extremely sharp. Please exercise caution. If you do cut yourself, try not to bleed on the books--blood is extremely hard to clean from paper.
4. Wash your hands frequently.
5. Batch similar repairs.
6. Do not eat or drink in the repair area.
7. Treatments should not be visible.

Tape and Adhesives

The only tape we will use in simple book repair is archival quality repair tape such as Archival Document Repair Tape or Filmoplast P. Occasionally, translucent mending tape is used for items with a short shelflife and in preparing damaged materials for reformatting (such as microfilming). Archival tape is extremely expensive, please be conservative with its use.

PVA: Polyvinyl acetate, a plastic based adhesive that when dry is extremely strong. Used in most binding, spine, and hinge repairs. Frequently needs to be thinned with water before using.

Methyl cellulose adhesive: Semi-synthetic adhesive that sets slowly but is reversible with water. Put 1 oz. of water in a small cup. Sprinkle small amount of methyl cellulose powder on water and beat until smooth. Add more methyl cellulose until consistency of thick gravy. Let stand 20 minutes. Add more water as needed. May also be thinned with water before storing.

PVA and **Methyl cellulose adhesive** may be mixed together in the ratio of 2 parts Methyl cellulose to 2 parts PVA. This mixed adhesive is appropriate for repairsneeding a strong bond but using lighter weight paper, such as gluing down end sheets.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

IDENTIFICATION OF BOOKS APPROPRIATE FOR IN-HOUSE REPAIR

A typical hard cover book will need attention at several stages in its library life:

- Original trade binding as it comes from the publisher
- Minor mending to extend the useful life of the publisher's trade binding
- Rebinding when the trade binding becomes too worn or the sewing breaks
- Boxing, reformatting or discard when the paper becomes too brittle

This manual will primarily focus on minor mending techniques that will extend access to the original book, yet address damage that impedes the use of the book.

Working Definition of a Simple Book Repair:

For the purpose of this manual and as a working definition for the Dartmouth College Libraries General Collections, simple book repair is defined as those repairs that meet any of the following criteria:

- The repair can be done by staff who have completed training in simple book repair and with the equipment and supplies readily available.
- The damaged book is needed by a patron and/or is a reserve book
- The book is not brittle. If it is ONLY a wrapper will be prepared to protect it while circulating, no other repairs will be attempted.

How Books Appropriate For In-House Repair Are Identified

Damaged books are identified by both library staff and patrons. To make the decision to repair a book in-house requires that each staff member involved in the process be familiar with and understand the implications of treatment and/or other options available. If the over-arching goal of preservation is access, then book repair becomes one option for providing access to a particular book. Briefly, the other options commonly available are ordering a replacement copy of the damaged book, sending the book for commercial binding, reformatting the book, and/or boxing the original material. Each option has a cost, both in staff time and materials. Unfortunately, there are no hard and fast rules for making these decisions. Rather, a number of factors should be considered by staff.

Some common questions you might ask before repairing a book:

1. Bibliographers

- Is the damaged book worth retaining?
- If not, would Special Collections be interested in the book?
- If book is worth retaining is it still available?
- If the book is available, is the cost of ordering a new book less than the cost of repairing the original?

2. At the Circulation Desk

- Is the book needed immediately by a patron?
- Are there other copies available?
- Have I consulted the appropriate bibliographer?
- Have I consulted Preservation Services staff?

3. In Preservation Services

- Is the book needed immediately by a patron?
- Is the book brittle?
- Is the repair simple?
- Do I have time, training, and supplies needed to complete the repair?
- Would it be easier to send the book to the commerical binder for treatment?

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Self-Closing Wrapper

Note: While not technically a repair, wrapping a damaged book in a protective enclosure can be an economical, non-invasive, temporary treatment.

Suggested Equipment & Supplies

- Map folder stock .010 for average size books, 20 pt. caliper for larger or heavier books
- board for large or heavy books
- PVA
- Paper cutter
- Scissors
- Bone folder
- Paste brush
- Wrapped bricks
- Scrap paper
- Sponge or damp cotton cloth
- Scalpel

Procedure:

***Note:** A wrapper is made of two long strips of folder stock cut against the grain, folded with the grain to enclose the book, and glued where they overlap to form a box.

1. Measure the heigth and width of the book and cut two strips of folder stock against the grain. Each strip should be at least three times longer than the book is wide.

2. Begin with the strip measured to the height of the book. Place it flat on a table and lay the book on top of the strip against the edge. Mark the edge of the book on the folder with a pencil.

3. Place the straight edge ruler along the pencil marks and score the line with the bone folder. Crease the board to make a fold.

4. Place the book upright against the newly formed right angle. Mark the edge of the book on the folder with a pencil.

5. Place the straight edge ruler along the pencil marks and score the line with the bone folder. Crease the board to make a fold. The bottom of the wrapper is beginning to take shape.

6. Place the book flat on a table with it snug against the fold. Mark the edge of the book on the folder with a pencil.

7. Place the straight edge ruler along the pencil marks and score the line with the bone folder. Crease the

board to make a fold.

8. Continue until the book is wrapped by the folder stock. Trim the excess.

9. With the inner wrapper still around the book follow the same procedcure around the width of the book making creases along the grain. You should finish with two scored pieces of folder stock. Trim the excess.

10. Place the outter (width) wrapper on a table and apply PVA to the middle section with a paste brush. Carefully place the middle section of the inner wrapper (height) on top and weight with a brick until dry. A strip of double-sided tape can be used instead of adhesive.

11. Secure the wrapper by cutting tabs out of the horizontal flap. To do this start by measuring the midpoint of the fore edge of the outer horizontal flap. From the midpoint measure one inch up and one inch down. Mark these points with a pencil.

12. On the tail and head of the wrapper measure two inches and three inches from the fore edge. (For smaller books use 1 1/2" and 2 1/2")

13. Draw 2 parallel lines from the top and bottom fore-edge marks, to the first (2") set of marks.

14. Draw angled line from head (3 in mark) to top parallel line from fore-edge. (Repeat from tail 3" mark)

15. With scalpel and straight-edge, cut along these lines.

16. Trim 1" off tab. (if small book trim 1/2" to 3/4")

17. Place book in wrapper.

18. Mark top and bottom angled corners of the tab and draw a line between the two.

19. Remove book.

20. Mark a line 1/8" (toward fore-edge) on top and bottom of line from angled corners. Connect 1/8" marks with line between the two ends to create a drawn rectangle.

21. Cut out rectangle to create slot for tab to be inserted into.

22. Replace book and fold shut.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

BOOK CLEANING AND ERASING PENCIL MARKS

Suggested Equipment & Supplies:

- White Plastic Eraser (e.g. Magic Rub, Staedtler Mars)
- Dry Cleaning Pad (e.g. Opaline)
- Vacuum
- Soft brush
- Paper towels

Procedure:

1. If there are grease-like marks in the book try absorbing by interleaving the book with paper towels and closing the book. If that is unsuccessful, try sprinkling the contents of a dry cleaning pad on the marks. Let sit for awhile, then brush dust away.

2. Using the vacuum and a soft brush, gently brush and vacuum book. Always brush away from the gutter of the book to the edge.

3. Shake the contents of a dry cleaning pad over the dirty page and using your finger tips very gently and lightly rub the pad dust over the page in a circular manner. CAUTION: BRITTLE PAPER is weak and may break if erasing is attempted.

4. Brush away the dry cleaning pad dust and dirt very lightly with a soft brush. Vacuum the book.

5. Erase pencil marks using the plastic eraser. Stroke with the eraser in a forward motion towards the page edge. Brush away eraser dust and dirt very lightly with a soft brush. Vacuum the book.

NOTE: INK and HIGHLIGHTER marks cannot be removed.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Torn Pages -- Two approaches to Repair

Suggested Equipment & Supplies:

- Archival document repair tape
- Adhesive (methyl cellulose paste)
- Scalpel
- Micro-spatula
- Japanese paper
- Tweezers
- Press board
- Wax paper
- Weights
- Small brush
- Q-tip
- Covered bricks
- Mylar

Procedure:

Using Archival Repair Tape:

1. All paper has a grain. Usually the grain runs opposite to how the type sits on a page. When mending a tear, first determine the correct position for the two sides of the tear to overlap. If the tear is long and changes direction, mend only one direction at a time.

2. Small tears and those that must be mended quickly may be repaired with archival document repair tape. Use only as much as is necessary to cover the tear. While using the archival document repair tape is quick, a major disadvantage is that it often does not adhere well. You may need to use a warm tacking iron covered by a light blotter paper to set the repair tape. Paper tears mended with archival repair tape will never be as strong or last as long as those repaired with Japanese paper and methyl cellulose paste.

Using Japanese paper and a starch paste:

1. On a small place in the book test the ink solubility by lightly brushing text with a wet Q-tip. Let it soak in very briefly, then blot. If the ink runs or fades, do not use this method to mend a tear. See Using Archival Repair Tape. If the ink appears stable proceed with the mend.

2. Support the book by opening it to the page needing repair and resting the remaining part of the book against two covered bricks. The book will form an L with the repair page parallel to the work surface. Put a piece of wax paper between the page to be repaired and the next page in the book.

3. Tear a strip of Japanese paper, along its grain, approximately 1/2 inch wide and slightly longer than the

tear. Lay the strip on a sheet of mylar and paste, running your brush in one direction--from bottom to top. Using tweezers gently lift the strip and center it over the tear. Use the micro-spatula to gently work the strip into the correct position. Place a piece of wax paper over the mend.

4. Leaving the wax paper in place, put a piece of press board and a small weight on top of the repair and let dry for at least one hour. If the tear extends to the edge of the page, the mending strip should be trimmed to 1/8 inch over the page edge. Add paste to the extended mend strip edge and fold it over the other side of the page. Repeat drying procedure.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Tipping in a Single Page using a Japanese tissue hinge

Suggested Equipment & Supplies:

- Adhesive (PVA)
- Scalpel
- Bone Folder
- Paper cutter
- Small glue brush
- Ruler
- Wax paper
- Japanese paper (Sekishu, Kizukishi, or Mulberry)
- Pressboard
- Light weight

Procedure:

1. If the page is missing, you may have to order a replacement through inter-library loan. Assuming you have the page in hand match the page weight with the correct Japanese paper.

2. TEAR a strip of the Japanese paper approximately 1/2 inch wide and somewhat longer (not more than one inch) than the page to be tipped in.

3. Place the tip-in page between two sheets of wax paper with approximately 1/8 inch of the inner margin showing. Run a thin line of adhesive along this margin. Remove the wax paper.

4. Place the Japanese paper strip over the glued edge and rub gently with your finger or a bone folder to secure the attachment. Place the glued tip-in between two new pieces of wax paper and under a flat board and light weight to dry.

5. Using the scalpel trim the excess of the Japanese paper strip off the top and bottom.

6. Fold the tissue over the edge of the paper to create a V hinge.

7. Place the fold of the hinge into the inner margin of the book and mark the sheet.

8. Trim the sheet using a paper cutter or a ruler and scalpel.

9. Place the creased hinge between two sheets of wax paper so that only the creased area is exposed for gluing. Run a thick strip of adhesive along the folded edge.

10. Position the folded edge (hinge) as far into the book's inner margin as possible.

11. Using the bone folder gently rub the hinge to adhere to the adjacent page. Place wax paper into the inner margin on either side of the tip-in to protect adjacent sheets from moisture and oozing glue.

12. Allow to dry overnight.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Hinge Repair

For books with the crash intact, but with broken endpaper at the joint.

Suggested Equipment & Supplies

- Wheat paste
- Teflon bone folder
- Wrapped Bricks
- Japanese Tissue
- Brush
- Mylar

Procedure:

1. Tighten the hinges if necessary (c.f. Hinge Tightening)

2. Open the board and support it with boards so that it rests parallel to the table top. Place adhesive under the loose flaps of the endpaper. Reposition those loose flaps so that they lie flat in their original positions and bone them into place.

3. Hold the text block in place with a weight or by hand; keeping the board level with the table top push on the board from the fore edge towards the text block.

4. Bone down any loose flaps of the endpaper if they come stick up. Put weights on the book to allow it to dry in this position.

Japanese paper hinge.

1. Cut a piece of Japanese paper to extend from 1/4" onto the pastedown to about 1/8": onto the flyleaf.

2. Paste out the Japanese paper and position over the hinge area.

3. Lightly bone down the Japanese paper to ensure that it is in complete contact with the endpaper.(A teflon folder is very useful for this procedure as the teflon does not drag as much on the wet Japanese paper as does bone)

4. Do not stretch the Japanese paper when positioning and boning it as it may shrink when it dries.

5. Trim excess with scalpel when dry.

Table of Contents

June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Corner Cover Repair

Suggested Equipment & Supplies:

- Syringe
- Adhesive (PVA)
- Bull dog clips
- Wax paper

Procedure:

1. Fill the syringe with PVA.
2. Shoot the adhesive into each layer of the corner, going as deeply as possible.
3. Using your fingers gently push excess glue toward the cover edge. Wipe excess glue away immediately.
4. Wrap book covering fabric around the repair as securely as possible.
5. Place wax paper over the inside and outside of the repaired corner.
6. Place one or more bull dog clips over the repair. This will provide just enough pressure to set the repair.
7. Place the book non-repaired cover side down and let dry for twelve hours.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Binding a Single Signature Pamphlet

Supplies & Equipment:

- Knife for removing staples
- Board shear or heavy-duty paper cutter
- Scissors
- Bone folder
- Acid free paper for end sheets
- Acid free pamphlet binder (available from a variety of vendors)
- Thin needle-sized awls
- Sewing needle with large eye
- Unbleached linen thread

Procedures:

1. Open the pamphlet to its center most fold, and prepare to remove staples or thread. If the pamphlet is stapled, bend the legs of each staple out straight using an instrument with a dull blade.

2. Slip the blade under each staple along the outside of the spine of the pamphlet, and using a back-and-forth rocking motion, remove the staple.

3. Use the board shear or a heavy duty cutter and trim the binder to size leaving a 1/4" square on the top, bottom, and fore edge. Optional: Trim the corners for a smooth, rounded edge.

4. Fold a large sheet of acid free paper and trim to the exact height of the pamphlet and slightly wider allowing a wider width for thick pamphlets.

5. Fit the pamphlet inside the folded endsheet and center it into a pre-made acid free binder positioning it either equidistant from the head and tail of the boards. Trim the head, tail, and fore edge if necessary to create a 1/4 " square.

6. Open the pamphlet to its center most fold. With the boards open 45 degrees or less, drive 5 awls through the fold in the pamphlet, acid free endsheet and its pamphlet binder. It is important to open the pamphlet only part way, so that the awls will pierce it through the fold and not travel off-center. The holes at the head and tail should be no more than 1" from top and bottom. The middle hole should be in the center of the pamphlet.

7. Cut a length of unbleached linen thread, 2-1/2 times the height of the pamphlet binder. Thread the newly cut end into a needle, but do not tie a knot. Leave the ends free.
8. With the pamphlet open only part way, begin sewing from the inside of the signature out, through hole #3 . (Sewing will proceed more precisely if the tendency to open the pamphlet flat is resisted. Awls should be removed one by one, just before sewing through each hole.) Leave a 3" tail of

thread, which can be pulled shorter later.

9. Sew back into the pamphlet through hole #2 and out again at #1. Thread should always be tightened in the direction in which the pamphlet is being sewn, pulling parallel to the spine of the pamphlet (not perpendicular). This minimizes the possibility of tearing the folds of the paper.

10. Pull the sewing thread gently so that the tail protruding from the middle hole is only about 1-1/2" long. Next re-enter hole #2, be careful not to pierce the thread that already passes through that hole. This will make it difficult or impossible to tighten the sewing.

11. Next, skip #3, go out #4, back in #5, out #4, and back in #3, always pulling the thread snugly in the direction of the sewing after passing through a hole.

12. When the sewing is complete, tighten the thread carefully by drawing outermost stitches toward the center of the binder, and pulling up on the ends of the thread. With one thread-end on each side of the sewing stitch that passes along the fold of the pamphlet (i.e. the long stitch), and tie a square knot. Cut the thread-ends to approximately 1/4" to 1/2".

Note: For very small pamphlets, 3 sewing holes can be used rather than 5; for very tall ones, 7 or 9 holes can be used. In all cases the sewing pattern is the same, with the needle passing in and out through every hole--from the middle to the head, to the tail, and to the middle of the pamphlet again--but skipping the middle hole on the way from head to tail.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

New Spine with Original Spine Remounted

Suggested Equipment & Supplies:

- Scalpel
- Straight edge ruler
- Scissors
- Bristol board or .010 acid free Hollinger stock
- Cotton-linen book cloth
- Adhesive (PVA & methyl cellulose mix)
- Bone folder
- 2" dowel or broom handle
- Book press
- Microspatula
- Paper cutter (optional)

Procedure:

1. Using the scalpel and straight edge ruler remove the original spine by slicing through the book cover cloth just 1/8" past the hinge. Do this to both the front and back covers. Remove the spine from the book and gently peel the paper spine piece away from the cloth spine.

2. Trim all frayed edges on the removed spine but not so much as to damage the appearance of the spine.

3. Cutting along the grain cut a new spine piece from bristol board the height of the book's boards. The grain must run parallel to the spine. The width should be cut exactly to the width of the spine.

4. Cut a strip of matching book cloth 2 inches wider than the spine piece and 1 inch longer than the length of the spine piece.

5. Glue the spine piece with adhesive, center it on the book cloth, and bone in place.

6. Fold the head and tail ends of the book cloth over the newly adhered spine piece and make a crease.

7. Trim both sides of the head of the new spine piece at a 45&degree; angle up to the crease. Repeat for the tail.

8. Make a cut at the center of the bookcloth at each end (head and tail) just up to the spine piece.

9. Apply adhesive to the tail up to the crease. Fold over and rub with a bone folder. Repeat for the opposite end.

10. Shape the new spine piece around a dowel or broom handle until it curves slightly.

11. Using the small spatula, gently lift the book cloth on the cover approximately 1 inch away from the book hinge.

12. Glue the exposed cloth on the sides of the new spine piece and attach to the book to create a new spine. Center and bone the new spine in place under the lifted cover book cloth.

13. Nip the book for a few seconds.

14. Put paste on the lifted cover cloth and press down.

15. Mount the original spine onto the new spine.

16. Press the book between book boards in a book press for approximately 15 minutes.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Wet Books - the Air Dry Method

This procedure is appropriate for handling one or two wet books. See the **Dartmouth College Library Disaster Manual** for handling of wet materials on a large scale. Ideally, wet books should be freeze dried then treated. This procedure outlines what to do when the book is not totally soaked and/or freezing is not practical. Wet books that dry closed, or are not treated within six hours of becoming wet, will almost always need to be discarded. The blocking agent used in processing paper acts as an adhesive when wet. The book will probably dry as a solid block.

Suggested Equipment & Supplies:

- Book press
- Press boards
- Fan
- Paper towels
- Blotter paper
- Iron

Procedures:

1. Using blotter paper or paper towels, blot as much water from the book as possible. Be careful not to rub either the cover or the wet pages.

2. Stand the book on its tail and fan open the pages. If possible dry the book in this position in the sunlight or with the use of a fan. Alternatively, dry the book away from a direct heat source, but in a warm dry area. The more quickly the book dries the less cockling (ripling) will occur.

3. If after drying the cover is warped, place the book between two press boards and place in a book press for several days.

4. In all likelihood a wet book that has been air dried will never look as good as it once did.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

Hinge Tightening

Suggested Equipment & Supplies

- Adhesive (PVA)
- Bone folder
- Knitting needles
- Bricks (wrapped in brown paper)
- Wax paper
- Pressing boards
- Damp sponge or paper towels

Procedure:

1. Place the book on its tail with cover open. Expose the inside of the hinges.

2. Dip the knitting needle into the adhesive and coat. Insert the needle into the hinge area between the backbone of the book block and the spine of the case, and roll it into the joint. Be careful to put glue only into the hinge area, or the book will not open properly.

   (Video)(160x120, 1.5MB)

3. Lay the book flat and bone in the hinge on the outside cover of the book. Apply pressure with the bone, but be careful not to tear the bookcloth (cover). Immediately wipe away any glue that oozes through the bookcloth with a damp sponge or paper towels.

4. Repeat steps for the other hinge.

5. Place wax paper between the folds of both front and back endsheets. Center the book block between the covers.

6. Place the book cover down on a hard clean surface. Place a knitting needle on top of each hinge. Place a clean board over the book and a brick on top of the board. The brick should be aligned with the hinge of the repaired book.

7. Let repair dry for thirty minutes.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

THE BOOK REPAIR TOOL BOX

Suggested Supplies:

- Archival quality repair tape
- Awl
- Blotting paper
- Bone folders
- Book press
- Bull dog clips #2, #3
- Cotton gloves
- Cotton tip applicators - 6"
- Cutting board
- Hake brush
- Interleaving paper
- Japanese papers
- Knitting needles - several sizes
- Linen thread
- Methyl Cellulose,PVA & Wheat Starch Paste
- Mylar & Squeege
- Plastic erasers
- Puffy pads
- Ruler
- Scalpel
- Sewing Needles
- 3M brand double sided tape (#415)
- Spatulas
- Surgical gloves
- T-Square
- Wax paper

Suggested Suppliers:

- Archival Products (A division of Library Binding Service) P.O. Box 1413 Des Moines, Iowa 50309 Phone: 1-800-526-5640 Fax: 1-515-262-6013 70670,2635@compuserve.com
- Bookbinder's Warehouse, Inc. 31 Division Street Keyport, New Jersey 07735 Phone: 1-908-264-0306 Fax: 1-908-264-8266
- BookMakers 6001 66th Avenue Suite 101 Riverdale, Maryland 20737 Phone: 1-301-459-3384 Fax: 1-301-459-7629
- Gaylord Bros. P.O. Box 4901 Syracuse, New York 13221-4901 Phone: 1-800-448-6160 Fax: 1-800-272-3412
- Hollinger Corporation P.O. Box 8360 Fredericksburg, Virginia 22404-8360 Phone: 1-800-634-0491 Fax: 1-800-947-8814 hollingercorp@interserf.net

- Light Impressions 439 Monroe Ave. Rochester, NY 14603-0904 Phone: 1-800-828-6216 FAX: 1-800-828-5539
- Stephen Kinsella, Inc. (Japanese tissue and other paper) P.O. Box 32420 Olivette, Missouri 63132 Phone: 1-800-445-8865 Fax: 1-314-991-8090
- Talas 588 Broadway New York, New York 10012-9989 Phone: 1-212-219-0770 Fax: 1-212-219-0735
- University Products, Inc. 517 Main St., PO Box 101 Holyoke, MA 01041-0101 Phone: 1-800-628-1912 FAX: 1-800-532-9281

Table of Contents
June 23 1999 bsb

Bookbinding and the Conservation of books

A Dictionary of Descriptive Terminology

Matt T. Roberts and Don Etherington
Drawings by Margaret R. Brown

Table of Contents

- Foreword by Frederick R. Goff
- Preface
- A Dictionary of Descriptive Terminology

- Full-text search

See notes on the electronic edition
The SGML source document from which this electronic resource is built is available

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CoOL [Search all CoOL documents] [Feedback]
This page last changed: October 07, 1999

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

BIBLIOGRAPHY OF SOURCES

Association of Research Libraries. Systems and Procedures Exhange Center. *The Changing Role of Book Repair in ARL Libraries.* Washington, DC: Association of Research Libraries. Office of Management Studies, 1993 (SPEC Kit 190)

Cunha, George Martin and Grant, Dorothy. *Conservation of Library Materials: A Manual and Bibliography on the Care, Repair and Restoration of Library materials.* 2nd ed. Metuchen, NJ: Scarecrow Press, 1971. 2 vols.

Greenfield, Jane. *Books: Their Care and Repair.* New York: H.W. Wilson Co., 1983

Jones, Maralyn. *Collection Conservation Treatment* Berkeley, CA: University of California, 1993.

Kyle, Heidi, et. al. *Library Preservation Manual.* New York, NY: Nicholas Smith, 1983.

Milevski, Robert J. *Book Repair Manual.* Carbondale, IL: Illinois Cooperative Conservation Program, 1984.

Morrow, Carolyn Clark. *Conservation Treatment Procedures: A Manual of Step-by-Step Procedures for the Maintenance and Repair of Library Materials.* Littleton, Colorado: Libraries Unlimited, Inc., 1982.

Preservation and Conservation Workshop Manual. Baltimore, MD: The Milton S. Eisenhower Library, Johns Hopkins University, 1989.

Table of Contents
June 23 1999 bsb

A SIMPLE BOOK REPAIR MANUAL

Dartmouth College Library
Preservation Services

This is the comment page for the Book Repair Manual of Preservation Services Department, Dartmouth College Library, Hanover, NH. If after viewing any portion of the home pages you would like to ask a question or give a comment please complete the following survey. Thank you!

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- ○ moderate
- ○ low

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- ☐ guiding priciples
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- ☐ cleaning
- ☐ tool kit
- ☐ corner cover repair
- ☐ general guidelines
- ☐ hinge tightening
- ☐ material identification
- ☐ new spine
- ☐ inhouse repair
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- ☐ wet books
- ☐ wrapper

- bibliography
- glossary
- parts of a book
- tornpages
- hinge repair

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Table of Contents

June 23 1999 bsb