

Schlebe, Tuscaloosa, 1995

Bookmakers  
Meyproid 680

Keiko Kyo

### PAPER PULP MENDING BY HAND

1. Select the paper(s) to be used. *wash & deacidify first* If possible, use a sample sheet to compare colors.
2. Make a sample sheet if necessary. Use a small, flat-bottomed strainer, and dry the sample on a tacking iron or with a hair dryer. Compare the color to the sheet to be mended.
3. Make the pulp. Tear (not cut) paper into small squares (about 1/4") and put into blender container. Add water and a small amount of Meyproid 680. Blend until the fibers are of consistent size, without clumps.
4. Prepare the paper. Spray it out on a piece of washing support until it is completely relaxed, and put it on a light box. (If the paper is bigger than the light box, support it on a piece of plexiglas.)
5. Apply the pulp with an eye dropper, a spoon, an applicator bottle, a baster, or other means. Use flat blotter strips to take up excess water.
6. Use a small tweezers to remove clumps of pulp, and a surgical sponge to even the texture. Put another washing support on top and blot the pulped area thoroughly with blotters or sponges. Lay the blotter or sponge gently on top of the washing support first, being very careful not to apply enough pressure to move the pulp.
7. At this point, the paper can be sized by brushing with methylcellulose, if desired. Put the mended paper between thick blotters and press between boards. (Do not press heavily-textured paper while wet.)
8. Remove the mended page from the press. Be sure it is thoroughly dry. Remove the supports from the paper, using a microspatula to prevent the mend from sticking to the supports.
9. Touch up. Use a water pen to remove excess pulp. Trim the edges if necessary. If the mend does not look right, remove it by rewetting the paper.

Thick  
blotters

eyedroppers - use lg.  
American Science & Surplus cat.  
applicator bottles  
squeeze bulbs  
strainer

light box

pump sprayer

pour onto Tollytex on  
Paper towel for quick dry

## **ADVANTAGES OF PULP MENDING**

- It is a weak mend, therefore will not cause stress on paper.
- The lack of adhesive means that there will not be cockling along the edge of the mend.
- The lack of adhesive makes the mend easily removable if necessary.
- Pulp mends are delicate and unobtrusive, but always detectable when the paper is held up to the light.
- There is a nearly infinite possibility of color matching.
- It is cheap (actually free once you buy the blender and light box), since you are using your own scraps.
- It is uncomplicated and easily learned.

## **TYPES OF PROBLEMS THAT CAN BE SOLVED WITH PULP MENDING**

- Ragged edges: Pasting strips of tissue would cause cockling.
- Thinning of paper due to faulty manufacture or mold damage: Using tissue would cause too much thickening, possible new weakness along the mend.
- Losses: Cockling is minimized.
- Cosmetic effects: Stains or unwanted stamps can be covered with pulp.
- Guards: Pulp is especially useful when there are several sets of sewing holes. Stab holes for side stitching can be filled with pulp, eliminating the need for wide tissue guards.
- Worm holes, or other damage that occurs throughout a book in the same location: Using tissue would cause a lot more distortion of the book block.
- Lining: With a very thin pulp mash, one can create a delicate lining--and for artwork that requires hinges, the lining can be extended over the edges, making a hinge that doesn't cockle the edge at all.
- Mixed with paste, use to re-form corners of book boards, fill in worm holes in wooden boards: Pulp/paste mix dries as hard as wood, does not tend to pull back from edges of loss.

## **CAUTIONS**

- The paper needs to be able to be wet completely, or tidelines will probably be a problem. (Partially wet paper may be pulped using a suction table.)
- If there is a distinctive imprint, plate marks, etc., the paper should not be heavily pressed while wet. (Pulp mends can be left to air dry, but the bond will be weaker, since pressing helps to provide more hydrogen bonding sites. Depending on the type of paper, air-dried mends can be strong enough.)
- Because the paper needs to be thoroughly wet to use pulp, the shape of the paper may be different when it dries. For books where only some of the pages are pulped, the pages might no longer line up exactly.

## SUPPLIES FOR PULP MENDING

- Blender: heavy-duty, metal base with glass container recommended, only ON/OFF options necessary. Dull the blades before using for pulping. *Waring Professional Blender* is a good choice.
- Light box (art supply store)
- Washing supports: NOT fuzzy; heavy-weight Hollytex works well. (**University Products**)
- Meyproid 680 (**BookMakers**)
- Small, flat-bottomed strainer (housewares store)
- Eyedropper (**American Science Surplus, TALAS**)
- Spoon, measuring spoon (housewares store, supermarket)
- Surgical scrub brush (**American Science Surplus, BookMakers**)
- Spray bottle: Air Mist (**BookMakers, TALAS**)
- Microspatula (**BookMakers, TALAS**)
- Flat sponge sheets (supermarket, auto supply shop)
- Thick blotters (**Paper Technologies, TALAS**)

*Magnesium bicarbonate  
deionized water  
distilled water*



### **American Science Surplus**

3605 Howard St.  
Skokie, IL 60076  
708-475-8440  
FAX 708-864-1589

### **BookMakers International, Ltd.**

6001 66th Ave., Suite 101  
Riverdale, MD 20737  
301-459-3384  
FAX 301-459-7629

### **Paper Technologies, Inc.**

929 Calle Negocio, Unit D  
San Clemente, CA 92673  
800-727-3716  
FAX 714-366-8798

### **TALAS**

568 Broadway, Suite 107  
New York, NY 10012  
212-219-0770  
FAX 212-465-8722

### **University Products, Inc.**

P.O. Box 101  
517 Main St.  
Holyoke, MA 01041  
800-628-5534  
FAX 212-689-0937

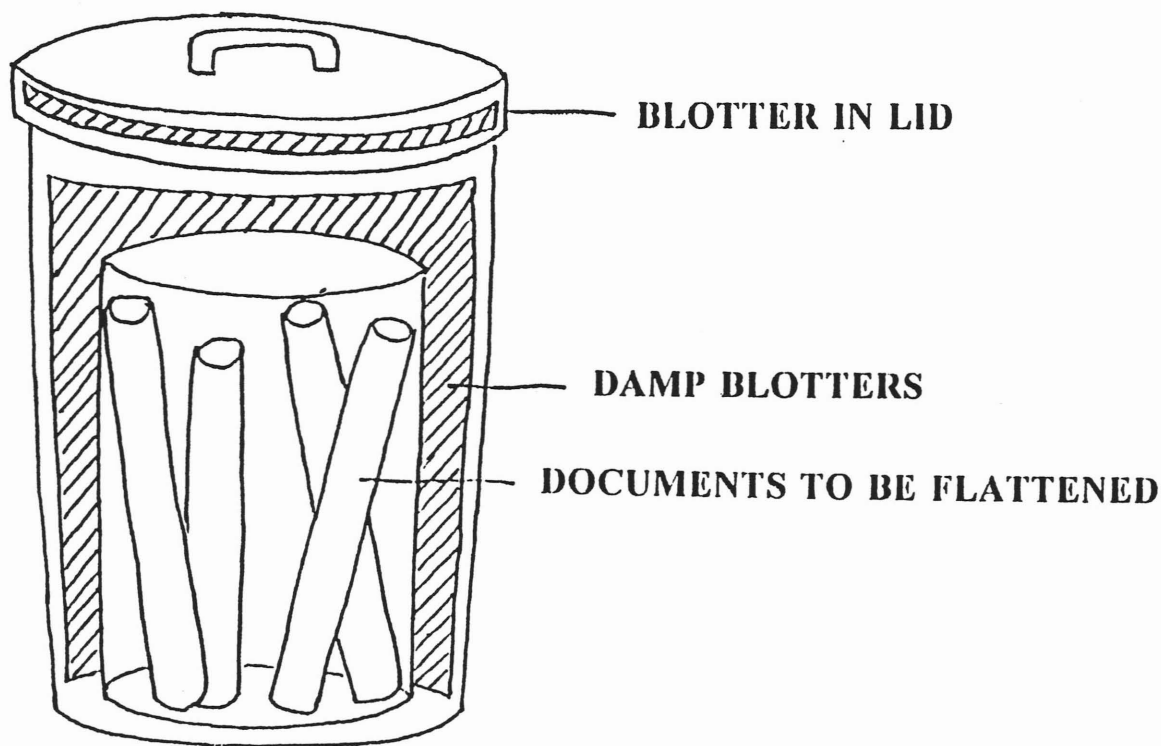
## Horton Humidifier

(New) plastic trash can with tight-fitting lid

Smaller plastic container (without lid) that fits completely into the trash can

Blotters

1. Place documents in the smaller container. (Fragile documents should NOT be stood on their edges.)
2. Place the smaller container in the trash can.
3. Thoroughly wet blotters with water and place them in the space between the two cans.
4. Cut a blotter to fit tightly into the lid of the trash can. (This is to prevent condensation on the lid and consequent dripping onto the documents.)
5. When documents have relaxed, take them out and dry them as usual.
6. Dry out the blotters, both cans and the lid (in sunlight, if possible). Mold will be a problem if thorough drying is not done after each use.



**PRESERVATION DEPARTMENT  
THE NEW YORK ACADEMY OF MEDICINE**

**PAMPHLET BINDING**

Pamphlet bindings are used for single-signature or thin multiple-folio pamphlets to enable them to stand on library shelves. This procedure provides a thin flat spine upon which an identifying label and/or call number can be placed.

Materials required:

20-point folderstock (grain long)

Thread

MIX (PVA/methylcellulose)

Cloth scrap

Narrow strip of 4-ply mat board (grain long).

Procedure:

1. Cut one piece of folderstock:  
Height: 1/8" higher than the height of the pages;  
Width: twice the width of the pages plus about 1". Crease this piece in the middle.
2. Cut 4 pieces of folderstock the same height as the large piece and 1/2" wider than the pages. Coat these with PVA and allow to dry.
3. Cut a narrow spine piece of 4-ply mat board the same height as the folder stock and just wide enough for the thickness of the binding. This should be no less than 1/4" wide.
4. Cut cloth 1" longer than the spine strip and about 2" wide.
5. Sew through the center of the pamphlet and the creased folderstock. Use standard pamphlet sewing or sew through staple holes. Start and finish on the outside. Trim the folderstock so there is about 1/8" square at foredge.
6. Construct the spine: Glue the mat board strip in the center of the spine cloth. Turn the cloth over at head and tail and glue down. (If the cloth is thick, cut off the turn-in except over the spine board area.) Glue out the cloth and attach to the front and back covers with the spine neatly centered along the fold.
7. Trim the other 4 pieces of folderstock to about 1/4" less than the width of the front and back covers. Place one piece on the inside of one cover, aligning top, bottom and foreedges. Give it a nip in a dry-mount press. Repeat with the next piece, attaching it to the outside of the cover. Repeat on other cover. Only a narrow strip of the cloth spine will show on the front and back.
8. Type or laser-print the label and glue it to the flat spine. Call numbers or other information can also be put on the front cover.

*Separate  
Spine*

*household  
iron -  
Silicone release  
paper*

Kickishur

## A METHOD FOR BINDING SINGLE SHEETS, USING FOLDED JAPANESE TISSUE HINGES

This structure is particularly good for oversize pages, since the pages do not have to be held open during sewing.

It is much easier to apply the guards to one edge of the page than it would be to put conventional guards on oversize pages.

It is good for stiff paper, heavy paper, or paper that is printed against the grain. The structure creates a hinging area farther away from the spine than conventional guarding, so there is less stress on the paper during use.

The sewing is sturdier - for a 4-page section, the sewing will pass through 8 or 16 layers of tissue, rather than the 2 layers for conventional guards.

It is easier to align the foreedges, especially with very large pages.

Keep in mind that the book will be at least 1/2" wider than if done with conventional guarding techniques.

1. Determine the number of pages for each section. For the first section, make strips of Japanese tissue the length of the pages and at least 5" wide. The strips should be torn with a water pen at one edge.

2. Place a 2" strip of waste paper longer than the pages on the work surface. Arrange the pages of the first section on the waste paper face down, fanning them so that about 1/4" of the edge of each page is exposed.

3. Place a strip of mylar over the top page 1/4" from the edge. Place a weight on the mylar.

4. Paste out the page edges, then slip out the waste strip. Lay the strips of tissue (torn edges) on the pages, starting with the bottom one. Run the bone folder over everything, then separate pages. *Dry between binder bd strips covered w/ hollytex (back ends taped)*

5. When the pages are dry, determine the desired width of the hinges (taking into account the desired swell of the spine and the number of folds of tissue desired). If necessary, trim the hinges to this width.

6. Align the pages at the foreedge (face down), then fold back the tissues (all together) so that they abut the spine edges of the pages. Fold again, and a third time if desired. *1/2 - 3/4" wide hinge*

7. Make hinges for the rest of the pages, the exact width as determined in step 5.

8. Repeat steps 2, 3, 4 and 6 for the rest of the pages. (Use the first section as a gauge for folding the rest of the hinges.)

8. Sew as usual, on cords or tapes, starting at the ~~back~~ <sup>front</sup> of the book. The book can be rounded and backed. *(cut plastic straw for cord)*

*Longer Wider Tunge over flatter - 1/2 - 3/4"*

1. mylar strips  
2. gap tissue strips  
3. waste strips 2" L + 2  
4. binder bd strips / hollytex (tape on ends) longer than pp.

5" wide strips - pp. L

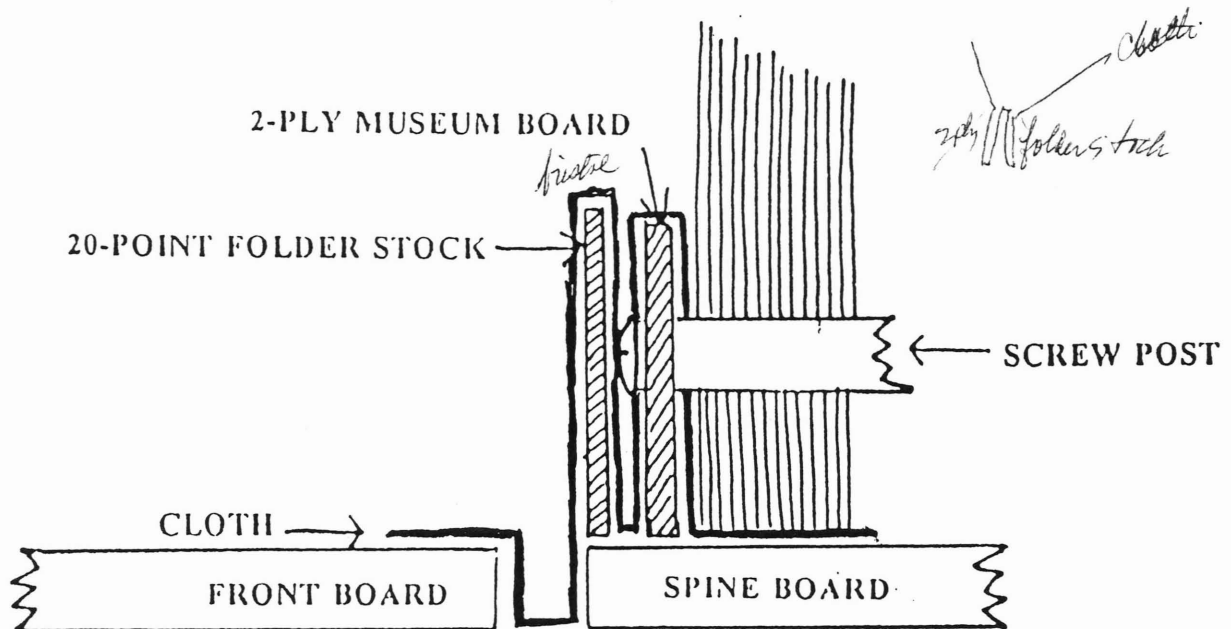
Binder's bond strips - tape on hollytex at ends

plastic straws so hold up cords

## ONE-PIECE POST BINDING WITH INTERIOR HINGES

This is the post-binding structure that was in use at Carolyn Horton's studio for many years. It looks like a bound book from the outside, and the screws do not show when the volume is opened. It is neater and less bulky than 2-part and 3-piece post binding structures. Since it does not resemble a photo album or a scrapbook, it is especially appropriate for encapsulated continuous texts.

### CONSTRUCTION OF POST-BINDING HINGES



For each hinge, have ready:

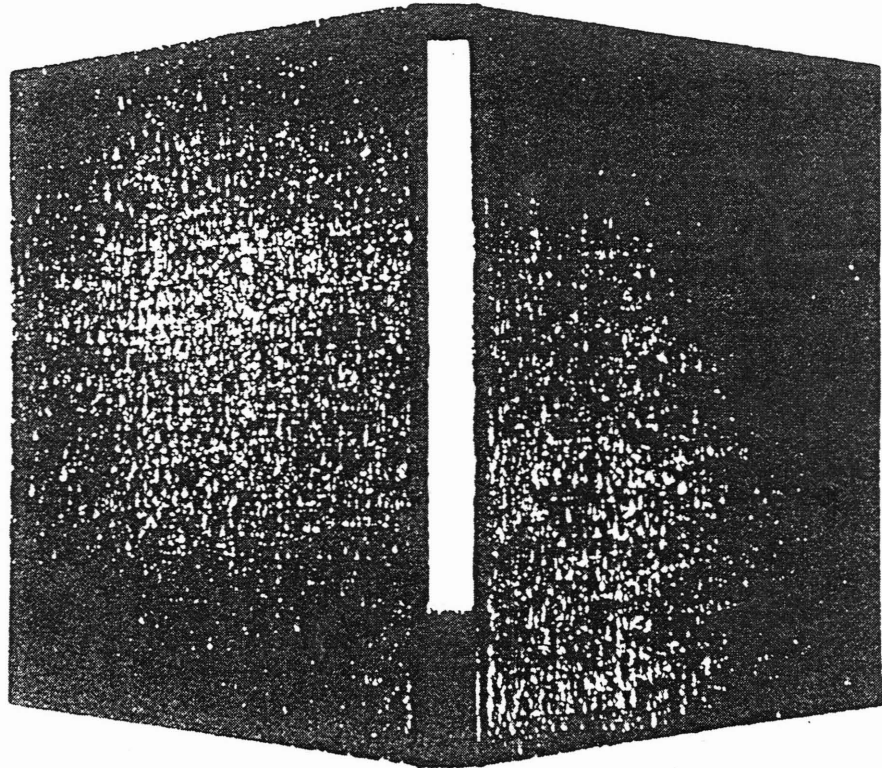
- Strip of 2-ply museum board  $\frac{3}{4}$ " wide and 1" longer than the pages
  - Strip of 20-point folder stock, the same length as the museum board (above) and a hair wider
  - Strip of bookcloth 6" wide and the length of the above
1. Glue out the strip of 2-ply and place it one inch from the edge of the cloth. Rub it down.
  2. Glue out the other side of the 2-ply and fold the longer side of the cloth over it. Rub well and fold the cloth back to the edge of the 2-ply.
  3. Glue out the folder stock and place it on the folded edge of the cloth. Glue out the other side of the folder stock, fold the cloth over it and rub. You will now have a V-shaped hinge. Make the second one.
  4. Cut the hinges  $\frac{1}{8}$ " longer than the pages. Tape the two 2-ply sides together, folding back the other sides of the hinges. Trace the holes from a page onto the 2-ply side of the hinges, leaving  $\frac{1}{16}$ " margin at head and tail. Drill holes. Mark each hinge TOP before taking off the tape.



## THE BINDING

1. Make a case: The case is the same as for the case of a clamshell box with a flat spine. Make the joints  $1\frac{1}{2}$  times the thickness of the boards wide. NOTE: Since the pages do not lie absolutely flat against the spine board in this type of binding, there is a tendency to underestimate the foredge square. Be generous.
2. To measure the width of the spine board: (Use of a combination square makes this easier)
  - For paper textblock: the pages, plus spacers if any, plus the two hinges.
  - For encapsulated textblock: the thickest part of the textblock (usually just beyond the spine weld).
3. Glue in the hinges, with the smaller flap on the spine and the longer one on the board. Make sure the entire hinge sits on the spine board, not in the joint.
4. Insert screws and pages. Line the boards with paper or cloth.

*Carpenter's square  
is level to measure  
Thickness of mylar  
encap. material*



The outside of the post binding