Barbara L. Meierjames
Guild of Book Workers
Seventh Seminar: Standards of Excellence in Hand Bookbinding
October 23 & 24 1987

Demonstration of mending book leaves using long fiber repair with Japanese tissue and wheat starch paste. The purpose of this session is to focus on mending which is both visually sympathetic and structurally appropriate.

This demonstration will include a slide sequence showing examples of problems specific to mending book leaves or paper materials which must function in a three dimensional structure. There will be some discussion of necessary considerations when mending and guarding textblocks with multi-folded illustrations and maps. This presentation will also suggest techniques for repairing in situ, and working on unusual format materials. A selection of tools and mending materials will be described and their use explained. These tools have been selected, modified, and assembled in order to have a complete outfit available for mending.

The design and selection of tools is a matter of personal preference. Understanding the principle behind the use of the various tools and techniques will allow greater flexibility for each individual to determine their particular choice. Having these tools and materials set aside for mending will reduce the time spent in collecting the necessary implements and allow full attention to be focused on the character of the paper and the nature of the tear/loss to be repaired.

The demonstration will continue with a review of the following:
The character of the paper to be repaired: its physical properties and aesthetic qualities.
The nature of the tear and/or loss.
The choice of repair tissue/paper.
Approaches to mending: running tears with straight or overlapping edges.
Approaches to the filling of losses.
Further considerations: when mending and guarding multi-folded illustrations, maps, or other unusual format material.
The design of jigs and modification of techniques for the unique problem.
Mending workshop: a selection of tools and materials

The following tools and materials have been collected and adapted or modified for long fiber mending. The choice of tools reflects a personal preference, however, their form and function is important. The assembling and storing together simplifies the preparation prior to mending. This leaves your attention free to concentrate on the item itself.

**general workbench equipment:**

1/2" thick plexi of approx. 18" x 24" and support blocks for plexi

light stick for illumination beneath plexi
luxo lamp for raking light
flash light with focusing beam - small thin mirror for viewing verso of tear plexi picture frame 5" x 7"

**studying the character of the paper and studying the tear/loss:**
magnifier (footed)
magnifier loup
flashlight and mirror for viewing at low light angle

**cleaning the paper:**

vinyl eraser and small cheese grater
dusting brushes - soft sheep and stiffer ox bristle brush
methylcellulose and synthetic bristle brush
polyethylene humidifying sleeve
humidifying/mist sprayer
photographic tray for washing
viewgraph polypropylene collars for polyester web supports
Dust-off sprayer or air source

**toning the mending tissue:**

small tray with mylar support
mixing well - tripart
flat japanese brush
hollytex for support while drying
blotter for pressing before tissue completely dry
hair dryer

**3 Tool trays - each containing related materials/tools and which can be stacked for storage**

Larger Tray #3 Pasting & Drying

3 bar weights and 3 fish weights
phase board cut for plexi surface and use as light weight placed over paper artifact
polypropylene squares, rectangles of miscellaneous sizes for weighting down
mylar encapsulations with & without black paper for viewing over and scribing onto
mylar tents and fold supports for humidifying and drying
various sizes of hollytex/polyester web stretch for drying
guarding jig
porridge paper
wet strength paper
ceramic tile mat black with finely grained surface for pasting out onto
japanese white bristle brush for pasting out
button brush for applying stippling pressure

Medium Tray #2  Tissues & Light Weights

japanese mending tissues - a selection
mylar sleeves for holding tissue assortment while determining appropriate tissue
linen covered boards for holding tissue in preparation of mend and prior to application
assortment of felt pieces with polyester web wraps for positioning and drying mend
sand bag weights
small pebble weights

Small Tray #1  Paste & Tissue Preparation

glass shelving piece
black ceramic counter piece (surface on which to modify fibrillation of tissue or check paste consistency)
brush rest
stainless cup and strainer with teflon scraper for paste straining
small wisk and spatula for same
glassware - stoppered air tight jar for paste stock
petrie dishes to avoid spills
glass cups and watch glass for dilutions of paste - seeing the consistency and maintaining it
narrow neck vial for water
eye dropper
stoppered bottle - ethanol
hollytex and wet strength paper (in polypropylene pouches for humidifying)

Ceramic cup containing:
tweezers with good tension grip
polypropylene tweezers with collar and cosmetic sponge
(synthetic bristle brush for pasting out
sable brush - 1/4" flat for pasting edge of artifact
sable brush #1 or #00 for minute application of paste
dental probe with crooked neck and spatula tip
ruler
folders - 3 ivory (one very small, 2 narrow with tapered end and thickening of heel)
1 teflon folder
water brush - japapnese synthetic bristle for calligraphy
2 needles with points modified for scribing shapes in tissue
cleaver blade with single edge dulled
2 spatulas with crooked handles for holding and separating tissue fibers
scalpel blades/small scissors
brushes for stippling pressure: bridled, small glue brush and stencil brushes
CONSERVATION MATERIALS LIST OF SUPPLIERS

Aiko's Art Materials Import
714 North Wabash Ave.
Chicago, IL 60611
(312) 943-0745
** Japanese papers, brushes, & tools

Airguide Instrument Co.
2210 Wabansia Ave.
Chicago, IL 60647
(312) 486-3000
** hygrometers, psychrometers

Andrews/Nelson/Whitehead
31-10 48th Ave.
Long Island City, NY 11101
(212) 937-7100
** Japanese and Western papers, handmade and machine made, mat board

Applied Science Laboratory, Inc.
2216 Hull St.
Richmond, VA 23224
(804) 231-9386
** Barrow test kits

BookMakers
2025 Eye St., NW, Rm. 307
Washington, DC 20006
(202) 296-6613
** heat-set tissue, hand binding equipment and supplies

Charrette Corp.
31 Olympia Ave., P.O.Box 4010
Woburn, MA 01888
(617) 935-6000/6010
** surface cleaning supplies, small tools, Fome Cor

Conservation Materials, Ltd.
340 Freeport Blvd., P.O.Box 2884
Sparks, NV 89431
(702) 331-0582
** general conservation supplies

Conservation Resources International, Inc.
1111 North Royal St. 8000 H Forbes Place
Alexandria, VA 22314
(703)-549-6610 703 321-7730
** archival storage supplies

Dietzgen Corp.
35 Cotters Lane, Bldg. EB 10-3
East Brunswick, NJ 08816
(201) 935-2900
** Skum-X cleaning powder and pads

Fisher Scientific Co.
461 Riverside, P.O. Box 379
Medford, MA 02155
(617) 391-6110
** ethanol, general chemical supplies

Franklin Distributors Corp.
Box 320
Denville, NJ 07834
(201) 267-2710
** Saf-T-Stor slide storage files

Gane Bros. and Lane, Inc.
1400 Greenleaf Ave.
Elk Grove, IL 60007
(312) 593-3360
** binders' board, heavy binding equipment

Hollinger Corp.
3810 South Four Mile Run Dr.,PO Box 6185
Arlington, VA 22206
(703) 671-6600
** archival storage supplies, custom made boxes

Light Impressions
439 Monroe Ave., P.O. Box 940
Rochester, NY 14603
(716) 271-8960
** general conservation supplies, photographic supplies

Photo Plastics, Inc.
P. O. Box 507
Fairfax, VA 22030
** PrintFile plastic sleeves

Pohlig Bros.
P. O. Box 8069
Richmond, VA 23223
(804) 644-7824
** custom made archival storage boxes

Process Materials
301 Veterans Blvd.
Rutherford, NJ 07070
(201) 935-2900/ 1-800-631-0193
** methyl cellulose, acid-free and buffered paper, mat board

Naoaki Sakamoto
Paper Nao
1-219-12-201 Sengoku Bunkyo-ku
112 Japan
Dear Margaret,

Here is my report. You can cut it down if too long. The little drawing goes where the X is.

Barbara L. Meier-James' session on mending book leaves using long fiber Japanese paper and wheat starch paste demonstrated an approach to page repair which is visually sympathetic and structurally appropriate. Ms. Meier-James, Book Conservator at the Library of Congress, began with slides showing examples of various problems encountered in repairing paper in books. The mended pages, maps, charts, etc. must bend and fold, unlike works of art on paper which will stay flat once mended. She stressed that the choice of technique and method of approach are as important as the actual execution. The surface character of the paper, nature of the tear and movement of the paper determine how strong the repair should be to work without causing additional stresspoints—for instance a hard edge or a dimensional distortion.

Next came some extremely skillful repairs made with Japanese paper torn into very long fibers and wheat starch paste. Dry cleaning and humidifying are done first. Finely grated crumbs from a Magic Rub vinyl eraser are worked with the fingers with light rotating pressure. The grated edge of the eraser can be used for very gently cleaning the edges of tears. Ms. Meier-James uses numerous clever little jigs and forms to place a tear in the appropriate position for the application of paste, blotting material and weights. For instance, to repair a folded edge, she constructs a simple tent covered with non-woven polyester. The edge to be repaired is aligned over the crest of the tent, the guard is applied and then covered with non-woven polyester. Blotters and small weights pull the guard over the fold as the repair dries in a curved position and thus preserves the original memory of the paper.
Among other good tips and techniques, Ms. Meierjames demonstrated methods for toning Japanese paper, the use of several light sources to see the exact nature of a tear or loss, using a mirror to see both sides of a tear at the same time and placing encapsulated strips of black paper under tears to see the edge better. She applies paste to a black tile and picks the paste up with the guard or bit of repair paper and demonstrated the different ways the paste will smooth out or bead up on various surfaces. All the tools and materials, as well as many samples of repairs, were carefully and logically arranged in stackable wire trays and other containers so that they can be put away without lengthy setting up.

Although the slide show and lecture were thoughtful and informative my only regret is that Ms. Meierjames did not devote more time to performing actual repairs. It is an inspiration to observe a person as skilled as she is.

Nelly Balloffet