Introduction to Book Conservation
North Bennet Street School
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Discussion of contemporary conservation principles:
Condition reporting and treatment documentation
Retention of original materials if at all possible
Use of permanent and durable materials
Ensuring the correct functioning of the new binding
Reversibility or “re-treatability”

Components of a mid-19th or early 20th century cloth case binding
Tipped-on single bifolio endsheets
Hand or machine sewn
Rounded and backed mechanically, not based on sewing structure
Stuck-on headbands
Loose-weave cloth and kraft paper linings
Cloth case with stiff boards and groove

Cloth rebacking procedure:

Removing binding

Cleaning edges with textblock between boards in lying press

Disbinding:
  Check collation and number the un-numbered pages
  Careful removal of spine linings: mechanically or with poultice
  Note that first and last section were sometimes tipped on

Mending the folds of the sections using kozo paper and wheat starch paste
  Hinging plates and flyleaves

Repairing the boards:
  Trim board in board shears at spine edge
  Bumped corners
  Paste wash

Pressing the swell out of the textblock if necessary after mending

Creating new inner hinges
  Kozo tipped to shoulder
  New hinges wrapped around textblock

Creating a sewing template and pre-punching holes in section

Resewing all along on linen tapes with kettle stitches at both ends

![Diagram of sewing process]
Use a weaver’s knot to tie on more thread

Shaping the spine (rounding and backing)

Lining the spine:
First lining of kozo paper (shoulder to shoulder and head to tail) using wheat starch paste
Extended lining of kozo paper using wheat starch paste or 50/50 Jade 403v PVA/methyl cellulose mix
Handmade or machine made paper (shoulder to shoulder and head to tail) using wheat starch paste or 50/50 Jade 403v PVA/methyl cellulose mix

Laminating the extended lining and the new hinge, with the sewing tapes between, using 50/50 Jade 403v PVA/methyl cellulose mix

Lifting the cloth and paper on the boards

Rebacking with laminated kozo paper with a 10 pt. card stock spine piece, using 50/50 Jade 403v PVA/methyl cellulose mix

Tinting new cloth before putting down the lifted cloth on outer board with Jade 403 PVA

Trimming the new hinges at an angle

Casing-in with new hinges

Putting down the lifted pastedowns using Jade 403 PVA

Cleaning the backings off of the original spine

Re-attaching the original spine

Color touchups as needed
Materials used during the workshop:
Jade 403 PVA glue (from Talas)
Zen Shofu Wheat Starch Paste (from Talas)
Methyl Cellulose (from Talas)
100% cotton Blotting paper 30 pt. (from Talas)
Hollytex #3297 (from Talas)
Mylar 3 mil (from Talas)
Dry cleaning sponge (from Talas)
White vinyl eraser (from office supply store or Talas)

Kozo papers used during the workshop:
HP-02 Usu Mino 16 gm. (from Hiromi)
HM-55 Yukyu-shi Thinnest 13 gm. (from Hiromi)
Yame Kozo Hadaura 16 gm. (from Talas)
Sekishu Natural 30 gm. (from Talas)
HP-62 Okawara 55 gm. (from Hiromi)

Suppliers:
Talas: http://www.talasonline.com
Hiromi Paper: http://www.hiromipaper.com

Adhesive recipes:

Methyl Cellulose:
Mix 14 grams methyl cellulose slowly into 500 ml water at room temperature. Allow to stand for 15 minutes and stir again before using.

50/50 Mix:
Mix methyl cellulose as above, and then blend it with PVA in a 50/50 mixture. (This formula can vary. Some binders use slightly more PVA than methyl cellulose, to give the mix more strength. Wheat starch paste may also be used instead of methyl cellulose.)

Wheat starch paste made with AYTEX-P or Zen Shofu:

Large amount:
1. In a glass bowl, mix 45 gm. wheat starch into 100 ml cold water and allow mixture to stand for 30 minutes.
2. Pour 400 ml. boiling water into the mixture, stirring rapidly for 3 minutes.
3. Allow to cool before straining. If you do not have a strainer, paste can be strained through cheesecloth.

Small amount:
1. In a glass bowl, mix four TBS distilled water to one TBS paste powder. Allow to stand for ten minutes.
2. Microwave on high for ten seconds and stir. Repeat until the mixture turns opaque.
3. Allow to cool before straining. If you do not have a strainer, paste can be strained through cheesecloth.

No. 301 instant paste is freeze-dried. Slowly mix the paste powder into room temperature water until it forms the desired consistency.

Bibliography:


http://cool.conservation-us.org/coolaic/sg/bpg/annual/v04/bp04-07.html


A video of Riley’s presentation is available from the Guild of Book Workers library at [https://guildofbookworkers.org/content/library-video](https://guildofbookworkers.org/content/library-video)

