

PLAIN JANE RESTORATION - MAKING BOOKS FUNCTIONAL

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On page 237 in Laura Young's book, "Bookbinding and Conservation by Hand", I base my work in the bookbinding world these days on the quote that appears on that page. While the quote appears at the beginning of her chapter on "Conservation Work", I think it relates very, very closely to restoration work, and what I wish to convey today.

*To know what to do is Wisdom
To know how to do it is Skill (and I'll add: "confidence")
To do it as it should be done is Service.*

She states that this quote sums up the three guiding principles that should govern all conservation work.....and I add: "restoration work".

Ms. Young goes on to state that **wisdom** combines knowledge, insight, and judgement, and these qualities are developed only through years of experience and thoughtful study. **Skill** is the ability to execute effectively those fruits of wisdom, and **service** is the willingness to combine wisdom and skill in doing a job "as it should be done". To me that service also relates to what you can do for the customer -- in what should be done to make their books once again readily useful to them!

She has a statement in this same chapter which uses words that I have taken here and broadened a bit. When doing restoration and conservation, the binder has to have broad horizons to see what needs to be done -- and of course, that goes back to the **wisdom**, **skill**, and **service** she mentions. After all (*and this is my quote*)....

"Each book has its own story."

That is, once you get into a book to work on it, you may find things you didn't know about before you began....and you may have to change some of your plans as to what you thought you were going to do to fix it.

So...be flexible as you work. But KNOW your options.

My Basic Steps:

- 1) evaluate book w/customer; decide basically the steps necessary; note these items on order form and provide a estimate for the work; customer signs off on the project; customer gets copy
 - 2) evaluate how I will proceed on the project
- two basic processes for sewn books and for adhesive bound books.....

Sewn

remove cover, or repair
remove spine materials
remove old glue
paste up spine
mend, iron pages
resew sections, as needed
add endsheets; trim
add super; mixit on spine
add ribbons and/or endbands
add hollow w/pva
measure for cover (or repair original)
make case cover:
 if flexi, press overnight or longer
 if hardback, go to next step
cut out covering material:
 if cloth, no preparation
 if leather*, prepare first
glue covering material on case
do turn-ins
trim out turn-ins (esp for leather)
place cover on text block; add weights; let dry
do titling
glue hollow* to cover and burnish down
 well; let dry
glue front/back covers to t.block
insert wax paper, or....
put in press w/boards
remove, inspect, call customer

Adhesive Bound

remove cover
remove spine materials
mend, iron pages
trim spine edges
cut 2-4 blank pages
fan glue w/Irish linen
let set up for 24 hrs under weights
add endsheets; trim
add super; mixit on spine
add ribbons and/or endbands
add hollow w/pva
measure for cover
make case cover:
 if flexi, press overnight or longer
 if hardback, go to next step
cut out covering material:
 if cloth, no preparation
 if leather*, prepare first
glue covering material on case
do turn-ins
trim out turn-ins (esp for leather)
place cover on text block; add weights; let dry
do titling
glue hollow* to cover and burnish down well; let dry
glue front/back covers to t.block
insert wax paper, or....
put in press w/boards
remove, inspect, call customer

*hollow made out of stretch linen most of the time; can also be out of Jaconette or Moriki Kozo (see samples)

Although there are many other techniques that may become a part of the process, the above steps are general for what we will be discussing at this time. Other techniques involved could be:

 rebacking,
 covers only with no spine piece,
 retaining endsheets but new cover, etc.

Just evaluate each project and decide on steps necessary to accomplish restored book!

Think about how to proceed before proceeding.

Fall back on experience and knowledge.

Remember the quote from Laura Young's book.

Some simple how-to's...

**which are important in making good use of your time when approaching restoration work --
and really, most any binding job:**

1)work efficiently - always think on how you can improve here.

Two quotes I remember from my internship at Don Etherington's center:

--It's the economy of the moment.

--Time is money.

2)think ahead -- see what steps need to be done, and which ones can be shortened or eliminated (but NOT ones that affect quality of work!)

3)plan ahead how repairs will be made, insofar as possible -- but again, be flexible - be prepared for changes as you get into the book

4)know ahead what materials will be used - also think about color(s)

5)eye-ball measurements as much as you can as you can save time when doing this - the more you do this, the better you will be at it - of course, use ruler if must be "right on"

6)set up an efficient and tidy work area:

- have very handy to you the tools used the most
- have easy to get to the tools used the "next most"
- return tools and equipment back to their "home"
- keep nearby most used materials (*super, hinge cloth, mending tissues, etc.*)
- have comfortable chair or stool
- have good lighting (perhaps one lamp source with magnification included)
- have cutting surface handy or on work surface
- have marble or lithostone nearby (*for skiving, gluing, etc.*)

7)settle on the best mending tissues -- the ones best to use for most of your restoration work and stick to those, having them nearby or handy.

SPECIFIC TECHNIQUES THAT I FEEL ARE IMPORTANT TO NOTE:

Pages and Text Blocks...

1) Do you need to save existing pages of notes, or pages with inscriptions and such?
remove fully, if loose; mend; extend spine edge with tissue; tip in or hinge onto spine

2) Is there a page or two completely out from within the text block?

add on strip of mending tissue

have enough for adhering to page and for making "V"

glue/paste in place in text block

insert polyester (Mylar) piece (*good if thick; can push "V" in place a bit*)

3) Are there pages at front and/or back of text block that are not attached?

attach mending tissue to page, leaving about 1/2" to 1" extra; let dry

lay page in place on top of text block and lay on weight

use mixit and glue area on spine

bring tissue over and gently press into place (*can do 2-3 and let dry before adding more*)

4) What do you do when a thick book is broken apart in 2 or 3 places? Or when a signature or a folio has completely come out from within a sewn book?

Two methods for when book is broken apart:

a) use the "Burkhard Split" (*so named by one of my students*).....

cut 2 strips of tissue or cloth as to height of text block + about 1" extra

use hinge cloth or Okawara mending tissue for thick text block (*like lg. Family Bibles*)

use Moriki, Sekishu, Kaji (or such) for less thick text blocks

use sewing machine to double stitch strips together, either in half or 1/3 in

(*no sewing machine? - use needle and thread doing double stitching; but stitching on sewing machine is best!*)

glue one of the "upper X section" (northwest piece) to biggest text block piece --
should not cover text; let dry

place other text block piece into place on top, making sure bottom of "X" is outside on spine; use weights to hold into place

spread open the 2 bottom pieces of "X" (*southeast and southwest pieces*)

glue each down on spine using mixit; gently bond in place with Teflon folder

leave all to dry for several hours w/pressboard and weights on top

open text block gently where the northwest piece of "X" is glued, and glue the northeast section down

insert polyester piece and close text block

put pressboard and weights on top; let dry 1-2 hrs

Question #4, continued...

b)stitch book back together...

place larger section on surface, begin stitching in its last signature

place smaller section in place on top, going up into it's next signature

tie off and add mending tissue on spine over the break

When a signature or folio has completely come out from within a sewn book:

sew into section next to the loose signature

sew next into the loose signature, doing a link stitch

finish sewing by going into the signature on other side

adhere mending tissue on spine over this sewing shaping book; let dry

check foredge -- may need to trim or sand

5)What would you do if a book that had gotten wet, but now dry and pages very wrinkled came to you for restoration. (*This is especially a problem for study Bibles with the thin pages.*)

remove cover only

cut 2-3 sets of blotters, a bit larger than pages of book (*1 for every 15-20 pages*)

use mister (or spray bottle with fine mist spray) and spritz pages as book is fanned

NOTE: If book is thick, do this only for first half; then when dry, do rest of book.

insert quickly the blotters every 15-20 pages on pages that were spritzed

place quickly between pressboard and press firmly

leave for about 5-10 minutes

remove book, remove damp blotters, insert dry blotters and press again

continue removing blotters and inserting dry ones until you feel the pages are dry

do the spritzing, blotters, etc. for rest of book

proceed with removal of endsheets, old spine support material, etc.

do mends, encapsulation as necessary, and proceed with rest of restoration process

NOTE: Keep book between pressboards in press when not working on it.

6)What should you do with tapes (e.g., Scotch Tape) on pages in book?

About half the time, the tape has to stay, especially in books with thin pages. However, there are some things that can be tried to see about removal. Very old tapes (cellophane) are often easy to remove, but leave a yellow stain. Newer tapes often can be lifted. Suggestions of things to try (*but test first!*).....

a)freeze page or book, and try removing tape immediately after removing from freezer

b)use small lifting knife that's not very sharp, and try to go under the tape, pulling gently and SLOWLY, striving to not abraid text

Question #6, continued...

- c) use heat of iron to warm a section and do same as in a)
- d) use acetone with cotton swabs, small sections at a time, and do same as in a)
but test first as this often does not work
- e) can use Toluene if have proper ventilation

NOTES: I never do #e) and rarely do #d). #b) works the best for me most of the time. When there is a sticky residue remaining, apply a bit of pure talcum powder. (Put talc in middle of square of soft cotton and pull up the corners to make into a ball. Secure. Use like a powder puff.)

Covers and Endsheets...

7) Does the cover need to be saved, but not the endsheets?

dampen, lift as can, dampen more if needed
if cover got too damp, put in press with blotters -- change out blotters
can lift with "lifting" knife (*an English paring knife cut at slight angle w/slanted edge*)

8) Do the endsheets need to be saved, but not the cover?

Two methods to do -

a) Soaking....

be sure endsheets can take soaking; test
peel away what you can of cover boards
use tray bigger than endsheets and half fill with warm water
put polyester piece on bottom of tray
lay in cover with endsheets and let soak, keeping water warm
check possible removal when pastedown seems to be lifting
let soak more if necessary, keeping water warm
try to remove remains of cover when pastedown fully lifted
make sure endsheet is over the polyester piece; lift out
make a sandwich:

pressboard larger than endsheet
blotter
polyester piece (*Remay or Holytex*)
endsheet
polyester piece
blotter
pressboard

press well; change out blotters and poly piece frequently at first, then less often until dry
keep between pressboards until ready to use

Question #8, continued...

b) Scanning and printing...

work to get color matching as close as possible
print on paper to match original

9) Do you have a book with leather rot? *(especially seen on covers of many large Family Bibles)*

use Klucel G mixture to consolidate leather

*I use 1 coat for sure; 2 if necessary allowing 45 min. to 1 hr. dry time inbetween --
mixture can also be used on old cloth and mending tissues.*

10) Are the cover boards dirty and dusty? *(usually the case with large Family Bibles or books that have been stored for a long time and in attics or garages)*

use soft cloth first when dealing with dusty, dirty cover boards

for further cleaning, some very light dampness (use spritzer) on the cloth okay...or...

use Document Cleaning Pad or eraser crumbles in sock

finish by rubbing with clean, soft cloth any remaining residue

11) What do you do when a book has only the front & back covers, and no spine?

laminate with mixit a piece of Irish linen and a piece of Moriki Pure Kozo

NOTE: Can use colored Moriki to match, or white and paint later.

press; let dry

cut piece near to size needed *(add extra just in case it's needed; can be trimmed)*

lift covers at spine edge about 1/2" to 1" *(or if can't lift cover, can overlay)*

insert on front cover first edge of linen/Moriki *(offset Moriki Kozo a bit from linen)*

lift cover and lightly brush **in** the PVA or mixit

turn cover over and brush adhesive in to adhere

nip in press for about 1 minute

lay cover on top of text block and turn cover and book over

lay other cover on the text block and bring spine piece up to check measurement
trim, if necessary

otherwise, repeat the gluing-in process as above and nip, removing off text block
measure actual width of spine and height of cover boards

cut spine support piece from tag board, 1-2 ply Bristol, or such

mark where this support piece will be placed so it will match up with spine

glue into place; let dry

do turn-ins

Questions #11, continued...

NOTE: If titling is to be done on spine, after Moriki has been colored to match covers -- paint Moriki with Klucel G, do hot stamping, seal with SC6000.
proceed with casing the cover onto the text block
do cosmetics, after casing/pressing, on all of cover (*acrylics, leather dye, etc.*)
apply SC6000

NOTE: Put small amounts of SC6000 in film cans or small containers rather than using from original container - keeps original fresher longer. Cut off a finger from white cotton glove and place on finger, dipping finger into the small container of SC6000 to get small amount. Apply in circular motion. Work quickly and blend as you work. Let dry. Burnish with clean soft cloth.

12) Do you have a book with broken hinges, but boards still mostly attached?

line inside hinge first - match to endsheets, or use mending tissue
let dry completely and press
line outside of hinge:

- either with Moriki Pure Kozo to match or to paint later or with Matsuo Kozo (*great colors*) in 2 layers, first one not very wide, and allowed to dry; second layer wider
- burnish well with Teflon folder; allow all to dry well (*sometimes many hours*)
- apply SC6000, when all mends are done

13) What can be done to a book to "freshen" up an old cover, or one that has been repaired?
(*new hinges, corners, etc.*)

apply cosmetics:

- acrylics, mixed to match
- colored pencils for small touch-ups (*Berol Prismacolor best*)
- leather dyes (*but most not waterproof; need SC6000 applied afterwards*)
- SC6000 when all cosmetics done

14) What can I do about corners worn or broken away?

Three methods for when corners are missing or broken away...

- a) sand edge of binder's board with dust going into small jar
mix paste into this dust until thick and pliable
lay corner to be done over piece of Mylar
apply mixture at the corner, molding to make shape needed, but applying a bit more than needed as when dry it will shrink
let dry well - usually several hours or overnight

Question #14, continued...

apply more of mixture if needed; otherwise, sand to smooth out and to shape
cover with Moriki Kozo (*or leather or cloth*) laying Moriki on front and doing mitering and
corners as usual
do cosmetics, if necessary, and apply SC6000 when cover is fully complete of mends

- b) build up corner by stacking blotter paper pieces, gluing with PVA or mixit
cut the pieces in stair-step fashion
let dry and cover as described in #a)
- c) build up using carved-to-fit binder's board and PVA
let dry and cover as described in #a)

When corners are worn or covering is torn or missing...

lift covering material front and back
insert matching (or white to paint later) piece of Moriki Kozo
(or leather)
adhere and turn in like a corner would be done for regular covering
glue covering material back down on mend
cosmetics and SC6000

Mends, Dog Ears, Wrinkles, Folds, and such...

15) Do you need to do a large amount of mending and encapsulating, especially in a study Bible?

use Filmoplast R (*or any heat-sensitive tissue*)
cut or tear tissue larger than the tears, hole, etc.; iron well
cut tissue larger than piece, if encapsulating,
iron well on BOTH sides, using silicone release paper
use hand sander and barrier board to sand off the edges rather than cut -- do this as you
go or when all mends done

*HINT: Keep small pieces of Filmoplast R in a container with a lid. Have nearby
when doing small mends. Use a large piece of binder's board as your
"ironing board", then sheet of silicone release on top.*

16)Do you have pages that should be mended or encapsulated with mending tissues?

for mends, guards:

cut or tear tissue

paste on, or can use mixit on some papers

for guards, paste and overlap over edge using wax paper

for encapsulating (or on only one side):

cut 2 pieces of tissue larger than item (*Tengujo, 13 gm good*)

lay each on Mylar that is larger than items

paste out tissues on the Mylar (*use wide soft brush*)

lay item down; burnish lightly to adhere

pick up Mylar with the item

turn this over and lay down on top of other pasted-out tissue on Mylar

check positioning; then burnish

gently lift off the Mylar starting at corner

turn over and lift off the other piece of Mylar

make sandwich to dry item (*see #8 above*)

17)Does the book have dog ears and folded pages, and a few tears?

use iron to press out dog ears and folds (w/silicone release if necessary)

use Filmoplast R for tears, large mends, weak dog ears

18)Are there some holes in a page or two, and corners or portions of pages missing?

decide to either use mending tissues or locate near-to-same paper

measure so item is 1/16" to 1/8" larger and tear to fit

sand edges to make beveled edges

adhere and trim edges after drying, if necessary -- or sand edges

Adhesive Bindings...

19)Do you have to restore an adhesive bound book , especially one which has "clumps" of pages already broken away from spine?

...see steps noted on page 2

...see *TeMPeR Productions instructions* at <www.temperproductions.com>

use lightweight Irish linen (see sample) and good quality PVA (Jade 403) for fan gluing book

burnish w/Teflon folder when adhering linen

remove out of fan-glue press, lay on table, put pressboard on top, and burnish further

by holding board down with hand to keep text block flat

Question #19, continued...

leave board on top and add lots of weight
let sit for 24 hours, at least

NOTE: *If spine is thick or in some way not as stable as you'd like, put in finishing press, saw in a little bit at angles, and glue in linen cords. Fray out the ends.*

Tips and Helps...

20)Did you get a drop of your blood on a page you were sewing, or anywhere on a book?

use own saliva to remove stains right away
don't rub paper too hard -- or much at all

21)Did you get glue (mixit or Jade 403) on bookcloth?

sometimes a disaster, but if working with Brilliantia book cloth:
rubber cement pickup after it's a bit dry
use own saliva later and the rubber cement pickup
do not rub too hard!

22)What could save me time as I do my binding/restoration work?

check the list on page 2
use templates and jigs wherever possible - especially those that will be used for most all
your restoration work
make the templates and jigs sturdy; label them; keep them handy to use over and over

+++++

"Tips for Healthy Books"

***...or, good suggestions for educating the public, your customers,
your friends and family on the care of books...***

- 1)Open new books or newly-restored books little by little, gently pressing on gutter each time.
- 2)Have a book properly restored before it gets worse
- 3)Keep books out of extreme elements (*concentrated lighting, direct sunlight, high heat*).
- 4)Store books in an environmentally controlled area. Don't store them in plastic bags, corrugated board boxes, in the attic or garage.
- 5)Store tall and large books or books with flexible covers by laying them flat rather than standing.
- 6)Place a book in the freezer if bugs/insects, active molds, or mildew are noticed.
- 7)Pick up a book with both covers closed or supported.

...continued...

- 8) Avoid using books for storage (*that is, as file cabinets*). This includes newspaper clippings, pressed flowers, keepsakes, extra bookmarks, locks of hair, etc.
- 9) Take a book from a shelf by pushing back the neighboring books, and gripping the book at the spine. Avoid taking hold of any book at the top of the spine.
- 10) Avoid carrying Bibles or study books in carrying cases with handles, or putting the covers in the pockets in the carrying case. Use arms to support the book.
- 11) No index tabs for Bibles -- paper much too thin -- causes many tears and tears!
- 12) Avoid home repairs on books, such as use of cellophane, duct or masking tape on tears; glue in spine or on covers; painting soiled areas. Consult a bookbinder.
- 13) Keep pets off books you're reading/using. Pet odors are difficult to remove.

SUPPLIES I USE AND WHERE THEY CAN BE OBTAINED:

<u>ITEM:</u>	<u>WHERE:</u>	<u>BULK?</u>	<u>FROM CATHERINE:</u>
Irish linen (weight?)	Ulster Linen	yes, 25 yds	yes
Super	Gane	min. yds	--
Hinge cloth	Gane	min. yds	--
Fraynot	Hewit	?	yes, in small amounts
Stretch linen	ICG/Holliston	yes, 50 yds	yes
Barrier board	Metal Edge	no	--
Map folder stock	Metal Edge	min. 25 sheets	--
Mending tissues	Japanese Paper Place	yes	yes & by orders
Bible paper, endsheets	Permalin	yes, 25 sheets	few sheets
SC6000	Talas	no	--
Filmoplast products	Talas and Neschen	yes from Neschen	yes, by order
<i>Japanese paste intake</i>			

SAMPLES IN YOUR ENVELOPES (*not in any special order*)

Irish linen
Hinge cloth
Fraynot
~~Super~~
Laminated Irish linen with Moriki Kozo
Stretch linen (*for hollows*)
Piece of Filmoplast R
Sewn "Burkhard Split"

For mending tissues, see sampler folder, compliments of The Japanese Paper Place