Reengineering Broken Books (RBB) Treatment Checklist for made hollowbacks

(add Title; Book ID; Date; Treatment started/completed)

Prepare-**materials and tools** (Corresponds with section 3 in the article)

Materials

- □ Paper: Repair carrier (thin tissue, tengu-jo 5g/m^2/10g/m^2/13g/m^2) [book height + 50 mm] x [three to five times the book width]
- □ Paper: strips of tissue, tengu-jo 5g/m^2/10g/m^2/13g/m^2
- □ *(Optional)* Paper: Berlin tissue
- □ Adhesive: Methylcellulose (Methocel A 4M - 3% in deionized water) (MC) and/or wheat starch paste (WSP)
- □ *(Optional)* Textile: "Caterpillar" textile strips (See 5.2 in article)

Tools

- □ 1.5 mm double-sided silicone-coated polyester strip [book height + 50 mm] x [a hair thinner than the textblock spine width]
- □ 2.0–4.0 mm polyester moisture barrier sheets & blotter paper [book height] x [book width]
- □ Hollytex jacket [book height] x [five times the book width]
- □ Working boards, flat and round brushes, bone or teflon (recommended) folder, scissors, weights, and flashlight

The RBB Treatment technique for made hollows (Corresponds with steps listed in section 4 in the article published in the Journal of the American Institute for Conservation)

1. Examine the book and prepare the workspace *(minutes 00:01–01:15 in video)*

- □ The book should have a made hollow with an accessible textblock spine.
- □ Check the point of failure [spine covering detached at joint (front/back)/ board detached (front/back)], and determine where additional strength will be added.
- □ Determine if other repairs are needed before or after RBB (paper mends, resewing, endband stabilization, hinge/joint/board/loose gathering reattachment).
- □ Choose the weight of the repair carrier and adhesive based on the sturdiness and size of the book (5g/m^2 tengu-jo and MC are recommended starting points).
- □ Place the book on a working board and wrap it with the Hollytex jacket.

2. *(As Needed)* Prepare the book *(minutes 01:16–03:05 in video)*

- □ Reattach or stabilize original spine linings, spine stiffeners, endbands, and/or inner joints with thin tissue & MC.
- □ Snip the original turn-ins at the shoulders to open and line their interiors with thin tissue. [Shorten the repair carrier if skipping this step]
- □ Attach "caterpillars" to the head and tail of the spine with MC or a mix of WSP & MC. (See Section 5.2 in article)
- □ For board reattachment, adhere a sheet of tissue to the textblock spine so that a flange extends beyond the shoulder with the detached board.

3. Drape the repair carrier and attach it to the textblock spine *(mins 03:05–05:15 in video)*

- □ Lay the book horizontally and (optimally) at eye level.
- □ Place a polyester sheet + blotter paper moisture barrier between each board and fly leaf.
- □ Drape the center of the repair carrier over the textblock spine so that it extends equally beyond both shoulders and about 25 mm beyond the head and tail.

- □ Apply MC through the carrier to adhere it to the textblock spine, the backside of the joint(s), and the spine covering; let dry
- □ Fold the head and tail edges of the repair carrier back onto the textblock spine and adhere.
- □ Let the repair carrier dry and then check its strength and connection to the textblock spine as well as the opening of the textblock, adding more tissue if necessary.

4. Reforming the function of the shoulders and adding strength where necessary *(05:15–07:14 in video)*

- □ Here are the crucial steps. Take a strip of paper about an inch wide and slightly longer than the length of the textblock; fold and unfold it in half long-edge-to-long-edge.
- □ Apply adhesive to the textblock shoulder for made hollows where the spine covering has detached.
- □ Align the strip so that the fold adheres along the textblock shoulder. Adhere the top half of the strip to the carrier that extends beyond at the textblock shoulder.
- □ Lay the book on its side with the intact joint up and locate weak areas with a flashlight.
- □ Apply strips of thin tissue or fold the repair carrier back onto itself to add strength where needed.
- □ Let dry and check if the points of failure have regained enough strength, while retaining flexibility.
- □ Repeat if necessary.

5. Close the repair carrier *(minutes 07:15--11:50 in video)*

- □ Temporarily adhere the silicone-coated polyester strip to the textblock spine with a dab of MC.
- □ ull the repair carrier down taut over the spine, and adhere it along the opposite shoulder; let dry.
- □ Adhere the extending ends of the repair carrier to the inside of the spine covering.
- □ Add extra layers if necessary; tear the edges of the tissue and adhere them to the carrier; let dry.
- □ *(If necessary)* Use the added flange (and caterpillars if added) to reattach the board.

6. Close the spine covering *(minutes 11:51--14:16 in video)*

- □ Apply adhesive through the repair carrier and to the spine covering (or reattach detached spine).
- □ Wrap the book with the Hollytex jacket, applying pressure, and let it dry (under weight, as needed).
- □ *(If necessary)* Reset the joints (section 5.6) before drying in the Hollytex jacket.

7. *(As Needed)* Reposition the turn-ins *(not demonstrated in video)*

- □ Remove the Hollytex jacket and place the book spine down so both boards are open.
- □ Apply MC to the interior of the turn-ins and to the head and tail ends of the hollow; return the turn-ins. to their original position and gently burnish with a folder.
- □ Close the book (with a silicone-coated polyester strip still in place) and let dry.

8. *(As Needed)* Address interior repairs *(as seen at minutes 14:18–19:10 in video)*

- □ Repair hinges and strengthen hinges with tissue stips, reattach textblock gatherings as needed.

9. Assess the repairs *(as seen at minutes 19:11–20:09 in video)*

- □ Gently open the book and check the first and last sections and attachment of the repair carrier.
- □ *(If necessary)* re-adhere lifting original materials.

10. *(As Needed)* Consolidate the outer joint *(not demonstrated in video)*

- □ Set down uneven edges or frayed threads and add a strip of Berlin tissue, if desired.

11. Remove the silicone-coated polyester strip *(as seen at minutes 20:15–20:59 in video)*

- □ Gently pull out the strip, using a soft-edged Teflon or bamboo spatula in the hollow if necessary.
- □ Open the book to see how the repairs interact with each other, reinforcing with additional tissue.

12. *(As Needed)* Add additional protection *(not demonstrated in video)*

- □ Put on a CoLibri, a Hollytex jacket, or in an enclosure. Store heavy or oversized books horizontally.