

THE EXPOSED SPINE BINDING TECHNIQUE

By Louise Genest

The full leather exposed spine binding is not merely an exposed sewing binding such as a sewing through a cover, the signatures have to be exposed. This technique is suitable for relatively thin book. If you have a thick book and want to use this method, you can "cheat" by sewing two signatures (two is the maximum without encountering disaster during backing) for each leather guard.

This technique presents 2 difficulties that one must bear in mind: the exact swelling needed for the rounding and backing and the exact position of the ties of the laced-ins (or the boards will have a tendency to open when the book is standing on the table).

The technique described here is for sewing with cords. When I sew with tapes, I use double tapes. I laminate the top one with vellum or other stiff but pliable material. The one under is thin and slightly narrower so as to not show on the spine. I use the "under tapes" as ties and they are usually covered with the same covering material.

1. Make your design, choose your covering material and decide how many sewing stations and what kind of sewing. This ~~has~~ to be done beforehand because once the textblock is sewn, that's it!

Note: if there are onlays that run on the spine, then inlays must be put on the concertina. Also, gold tooling must be done on the concertina prior to sewing.

2. Trim textblock and colour edges if necessary.

3. Take one signature and measure with a strip of paper the width of the leather guard. This is a bit difficult to estimate but a too large guard will make deep shoulders and a too narrow one will not want to fold over the signature during sewing.

The leather guards for the endpaper signatures should be wider, about 1.5 cm.

All should be pared as thin as possible and the edges should be shaved (almost to a feathered

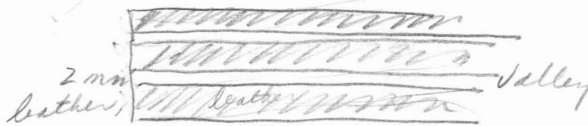
edge) to ensure a soft swelling and a natural rounding and backing.

Note: keep the measurement of the leather guard's width safely stowed away in case you need it or in order to keep a record when you evaluate the finished spine.

4. Choose a strong but thin Japanese paper for the concertina. Cut it the height of the textblock + 5mm. The width should be: number of signatures x (width of guard + 2mm.) + 3 cm. for the 2 blank leaves signatures.

Note: for example, your book has 7 signatures + 2 endpaper signatures. The width chosen for the guards is 6mm. Then your concertina will be: $7 \times 8\text{mm.} = 56\text{ mm or } 5,6\text{ cm} + 3\text{cm}$ for a grand total of 8,6 cm.

5. Mark with a pencil the lines on the concertina. These will act as a guide for positioning and they will be the "valley" pleats. Glue the dry leather with PVA. Place the finished concertina between blotters and under a weight until dry.



6. Cut the concertina 2 mm. shorter than the height of the textblock. Make sure that it is square. *1mm at each end*

Pre-fold the concertina with your hands to make the "mountain" pleats after using the dividers and scoring the concertina over a soft surface with a thin bone folder or a metal scorer..

*check width between 2 valleys. divide by 2 - set dividers.
Pick ends of leather guards. Score, fold mt. fold on leather*

7. Pre-pierce sewing holes in / on signatures. To make an easy start, put a few spots of PVA on the fold of the first signature and place it in the concertina's first mountain fold.

Signature 1."

Set vellum strips at head & tail (headbands are incorporated into the sewing), double cords in center. See figure 8 around cords. Pack 2-3 threads around cords - outside. Go on to next cord inside, done down hard.

8. You need a sewing frame unless you like to do things the hard way. Prepare your sewing frame and start sewing. Sew the signature, bring down the concertina making sure that it lies square with the textblock. Press the signature down with a bone folder. Place a knitting needle or a brass rod (the diameter should be considered carefully) over the folded concertina, pull up the latter, put the next signature in place, remove the needle or rod by sliding it out, press the signature down with the hands, then sew.

Note: when positioning the signature, I check all 4 sides. Always check that your concertina is straight. If needed, pull in a little more under the signature in the opposite direction.

I always incorporate the headbands into the sewing and I prefer to use pack-in sewing for good spine support.

If I use tapes, I would make a decorative embroidery or secondary sewing to hide the thread on each side of the tape.

Rounding 30% max.

9. Find the natural shoulders of the textblock and put thin strips of masking tape on the leather as markers for backing. The shoulders should be deeper than the thickness of the boards because the letters are not covered yet with the leather. Round and back. (You can use a backing hammer even on calf.)

Note: if the sewing is a double-flexible, packed-in cord, you must insist at the sewing support. Use a wooden block.

(slightly larger)

1.5 mm

10. Cut the boards with small squares (the "in" thing is to have 1 mm. squares). Identify front and back boards. Line with paper, put in the press for a few minutes then let air-dry them standing upright on the table for a few days. 3+

mark Identify inside of front and back boards, and also the edge of the spine.

If the backing is not at 90 degrees, the first thing to do is to shape the boards at the shoulders. Then the 3 sides can be chamfered.

Extra care will be made in the sanding if the boards are covered with calf.

I usually sand off the sharpness of the inside edges of the board.

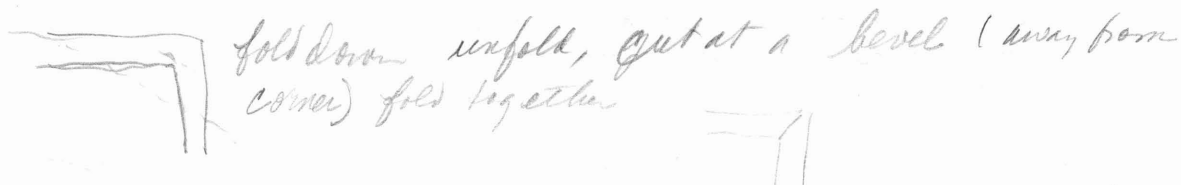
Note: if I use the French blueboards, I can sand off about 1/3 of the board's thickness.

11. Cut 2 pieces of leather with enough ^{1/2"} turn-ins; the one at the spine-side should be 1 cm. Pare. Since the leather does not need structural strength, it can be pared quite thinly (but not too much because of the corners' tendency to wear faster). The leather for the turn-in at the spine should be carefully pared as for headcaps. *Turn over & feel for bumps.*

12. Wet leather (I use mineral water or demineralised water at 92%, never tap water). Brush on with a starch paste and let absorb. Repaste and place on board. With the edge of the bone folder, insist at the edge of side of the spine. *roll down?*

Note: for the corners, I have adopt this method: I fold the leather in a right angle the fold being a little farther than the board (about the thickness of the board). Using my paring knife in an angle, I cut off the fold. Then I pare the angle of the leather resulting in the prolongation of the 2 sides of the board making this angle, being careful not to cut through the leather. I put down the turn-ins, lick or wet the resulting beak at the corner then bring it down using my nail in a pleated pattern. This technique for leather corners (and not for cloth nor vellum), is the best.

Let the boards dry under weight and between blotters which are changed regularly.



13. Carefully position the boards on the textblock: make sure that the squares are even and that the boards snug well at the shoulders. Lightly score on the boards the position of the sewing supports.

Compare the 2 boards, side by side in order to make sure that both sides are at the same height. Using a right angle or a French *équerre à talon*, bring that position at 1 cm or at the exact point of lacing-in. Make the holes using an awl. Turn the boards. Pare off the excess of the board made by the awl. *5mm from edge* *minimum* *Dremel or hand drill*

Once laced-in, the board will pivot onto itself, because there is no hinge. So you need to tie it down, Drill or make a small hole using a fine awl (big enough for a threaded needle to pass through). This hole should be made halfway between the edge of the board and the lacing hole.

Turn the boards over and make a groove with a knife to accomodate 2 threads. If the boards are very soft, wetting and heavily scoring with a thick bone folder might do it.

Notes: I never make a hole closer than 5 mm. If, in my design I need more, I try to stagger them *so* as to not weaken the boards.

Notes for tapes: With a chisel, I make a slot broad enough to accomodate the lacing of the 2 tapes. On the inside of the board, I cut a narrow channel from the edge of the board to the slot, and a wider one from the slot to about 1 cm. for gluing down the tapes.

14. Using the same size of thread, finish the sewing pattern on the cords / tapes until they are ready to be laced-in. There should be enough thread left to be able to tie the cords when laced. The tension of the support when laced should not be tight, but "natural". This is very different from the usual full leather, laced-in binding or the 16th Century full alum-tawed one.

When all have been laced, turn the board over. If cords have been used, I cut the cords at about 3 mm. With a needle, I fan the strands evenly around the hole, paste them and flatten them with a bone folder.

Cover the inside of the board with a strip of wax paper, close the board and do the other side. Let dry.

*PVA on cord ends. Check sewing on outside. Cut cords to 1/8" -
fay out, paste down. dry overnight*

15. The tie.

With a needle, pass the remaining thread through the hole of the lacing. Pull tight.

Go through the small hole and wrap around the support in the same way as the sewing pattern. Don't pull yet, because you have to go back into that hole making sure that the needle does not go through the previous thread. Pull tight the thread which comes from the inside of the board first, then the one which goes back.

Keep the tension tight while the board is opened.

Close the board.

For double cords: using another needle as a guide, insert it right at the shoulder, next to the board. Pass the tread where the guide is, wrap around, pull tight. Go under the board, along the first thread and pass through the hole for the lacing. Just before pulling tigh, I PVA the tread

in order to bring some PVA inside. I close the board, put some PVA at the base of the hole and cut the thread flush.

For single cords, I do not use a guide. But since the thread do not pass in the middle, I make sure that the tread crosses with itself under the cord in order that the cord stay put in its place.

For tapes: I lace-in first the "under tape", cut a small channel on the covering leather so that the "under tape" lies flush with the board. I pull the "under tape" moderately, again to obtain a "natural" lacing. I cut the excess off, glue it in the small channel and rub it well with a bone folder. Then lace the other one. I cut the excess tape and glue it in the channel. I rub it with a bone folder so that it is flush with the board.

16. Finishing inside the boards.

You can trim the turn-ins, fill-in then put the paste-downs.

Or you can make a doublure; this is a neat trick I got from Monique Lallier:

- a. Pare in a shallowest angle possible the turn-ins.
- b. Cut a piece of paper bigger than the board. The paper used should be thick and easily sanded. Paste it, place on the board so that it protubes at head, foreedge and tail but is flush with the edge close to the spine. Let the board air- dry. (I put the book on the edge of a pressing board with the 2 boards opened.)
- c. Sand the paper evenly from center towards the edges. Be careful not to sand the leather or the threads used as ties.
- d. Repeat if necessary.
- e. Cut the doublure the same size as the board. If the doublure when pasted or glued will extend, trim accordingly.
- f. Paste or glue. Rub well with a bone folder. Close the boards on moisture barriers and put the book between boards and under weight. Let dry.

17. Colour the threads using acrylic paints.

Note: I use a very good water colour brush because it can hold a lot of paint and yet keep a fine point.

If my covering material has a pale colour, I use a thin Mylar (.002) which is placed under the cord or tape for protection.

18. Wax the leather.

Note: if I have used calf, instead of using wax, I mix methyl cellulose with water (the feel is that of slightly thickened water, like a paste wash) and put it on with a natural sponge. It is a real beauty treatment for the leather and minor scratches disappear.