

Byzantine Binding

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Introduction

Byzantine structures encompass many methods of binding but typically have features which remained in use for over a thousand years across great areas of Europe, Asia, and North Africa. Those countries that were influenced by the Byzantine Empire, the Era of the Eastern Roman Empire, maintained their traditions of binding for many centuries.

Byzantine structures are typically sewn with unsupported link-stitch sewing on thickish thread. This gives direct mechanical attachment of the signatures to the wooden board covers. The text block is flush with the boards, and is sewn in two halves to give a rounded spine, which prevents the book from sagging in its boards. The spine is lined with a coarse weave cloth that extends onto the outer faces of the wooden boards. The book is covered with leather, and can have one or more ties to keep the book closed. Leather covered boards were often decorated with patterns of blind tooling and metal furniture.

The Byzantine binding relaxes at the spine on opening and this allows the pages to drape well.

Materials

"These books tended to be partly"

Two wooden boards for the covers.

Paper for the textblock: twenty four 4-fold sections, giving 192 pages.

Coarse cloth for the spine lining.

Thread: unbleached, unwaxed Irish linen.

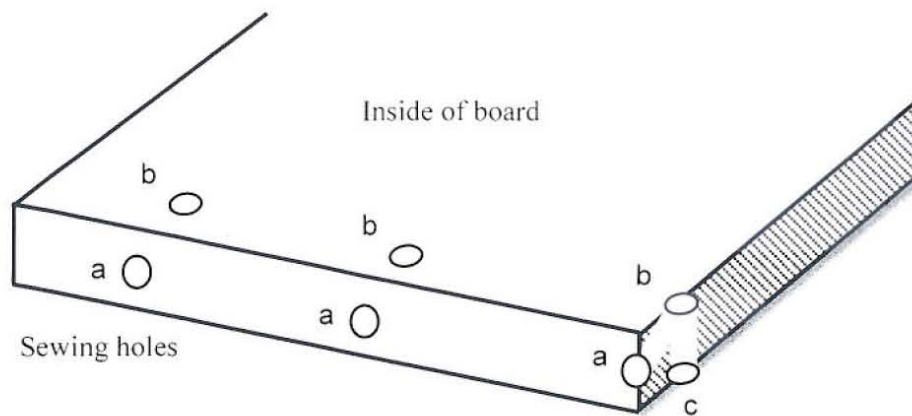
Cord: unbleached, unwaxed hemp.

Leather for the cover and the closure.

Brass bosses, and a brass loop for the closure.

The Binding

1. Decide on the dimensions of your book and cut your boards to size.
2. Fold and press your sections. Cut them to the height of the board, and wider by about 1/2".
3. Put the sections between the boards in the finishing press. With a square, mark five lines across the spine, including the boards. Cut V-shaped grooves, at 45°, into the backs of the sections with a scalpel. These cuts, or kerfs, will provide a space for the heavy chain stitch to sit on the spine. Pierce all the sections so they are ready to sew.
4. Drill holes in the boards for the sewing thread, with a 1/16" bit. A hand drill gives good control. There are two holes on each board for each of the sewing stations. The first hole starts in the middle of the board edge and then goes at a shallow angle to the inside. The second hole starts where the first hole came out, and goes vertically straight through the board to the outside.
5. Round the outside of the board spine edge at the outer surface, and cut V-shaped channels along the lengths of the board edges, except the last 3/4" of the head and tail.
6. Excavate a small channel between the hole on the outside face (c) of the board and the corresponding hole on the board edge. The sewing thread will sit in these channels.
7. Smooth all the holes and channels with an awl as you go, and sandpaper the boards to a smooth finish so that they sit comfortably in the hand.
8. Drill holes for the endbands at about 1/4", 1/2" and 3/4", from the spine edge, with a 3/32" bit.
9. Drill three holes for the strap of the closure, at about 3/4" from the foreedge of the back board, with a 1/4" bit. Drill one hole for the peg halfway along the foreedge of the front board, with a 1/16" bit.



Sewing

10. Sew the book in two halves. The thread should be strong and so should be quite thick; this will create a discernible chain stitch on the spine. 12/3 is usually a good size. The book is rounded and backed as it is sewn with the thread being used to pull the section close to the board or previous section.

Make a loop around the end hole on the left, whilst the board is lying on the edge of the bench with the inner face uppermost. Tie the loop tight to secure the thread. Loop around the board for a second time and exit from the sloping hole.

11. Enter the first section with the thread and exit at the second hole. Repeat the loop through the board and continue as before, i.e. enter the sloping hole and loop around the board twice. Each time you enter the section, you link the thread through the previous thread before exiting at the next hole. At the last sewing station of the first section you rise to the nearest sewing station of the second section.

12. Try to keep the book square during sewing. Press each section flat after sewing and bone down well over the thread that is inside.

13. Proceed with the sewing; go up into the second section, go along and exit. Form a linking chain stitch, to the section below each time you exit the section, on the spine. This can be made to link two sections below. The chain stitch is made as you pass through the gap under the two sections below, around the sewing that's already there, and then back up into the next section.

14. Continue to sew on the other sections. When half the sections are sewn on, put this half of the book aside and start again with the other board.

15. Bring the two halves together and loop one of the sewing threads around the last stitches of the other to attach the two halves together. Finish by tying the two sewing threads together.

Lining the Spine

16. Prime the boards with paste, and paste up the spine; allow to dry. When dry paste on the cloth spine and board lining. The cloth can come onto the boards to about 1/3 of their width.

Sewing the Endband

17. A Greek endband can be made for this book. *Greenfield book*

Covering and Decoration

18. Cover with leather in the usual manner. Corners were roughly overlapped and the turn-ins were not trimmed. At the endbands the turn-in is cut back and folded inside the spine to reveal the endband.

19. Make a strap out of a three-stranded slit braid with a brass loop. Attach the strap, and drive home the peg.

20. Apply any decorative blind tooling, and nail on the bosses.

*most work leader into groove as drying
To boards first edge of spine. Turned later*

*No paste on spine - leather should
not
adhere*



- brass screw w/ head rot off, screw & wood's filed off

file knob into stake quicker than shaping a rod

- loop from brass chain, stone w/ pliers