

Cincinnati Book Arts Society
Study Group
November 12, 2022

SINGLE NEEDLE COPTIC BINDING WITH DECORATED TYVEK COVER

Your supply kit includes:

3 pieces of Tyvek, about 8" x 11" each: one sold by Amazon in 8.3" x 11.7" sheets, one a 10" x 13" mailing envelope (Amazon or office supply store), and one from a large roll (donated by Marguerite)

2 book boards, 4 $\frac{3}{8}$ " x 5 $\frac{5}{8}$ "

1 text block, 25 sheets, 8 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " - fold and gather into 5 signatures, 5 sheets each

2 Tyvek strips, about 1 $\frac{1}{4}$ " x 7" for reinforcing spine

1 cardstock strip for making punching jig

Additional supplies needed:

1 length of waxed linen thread, 7 generous times the height of the book

1 curved needle

PVA and glue brush

INSTRUCTIONS

Decorating the Tyvek cover

You have 3 pieces of Tyvek. Use the widest sheet for your cover. In this session, we will be using acrylic ink to decorate our Tyvek. [Check out YouTube for tips on painting Tyvek.] After painting, put it on newsprint to dry. Using a hairdryer will speed this up. If you've decorated more than one sheet, chose one for the cover. Set it aside to dry.

Preparing the text block:

1. Your kit contains 25 sheets. Fold them into 5 signatures, each with 5 sheets. Lightly mark a T at the top of each signature's outer sheet. Bone down the spine folds.
2. Fold the template in half vertically to make a punching jig. Open it up and fold in half horizontally as well. Draw a line on the horizontal fold. Mark the Top.
3. Single needle Coptic stitch can be done with any number of sewing stations. For the purposes of this session, we're using 5 sewing holes. Mark the template:

2 marks, $\frac{1}{2}$ " from both the top and bottom edges,
1 mark at the center, at the horizontal fold line, and

2 marks, each between the ½” mark and the middle - spaced as you like.

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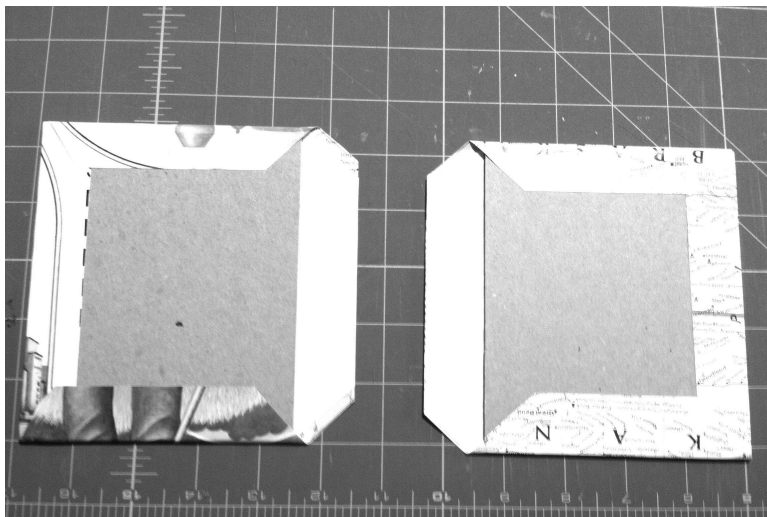
4. Place the punching jig snugly in the valley fold of each signature, butted up against the side of the cradle. Being sure to match the tops, use your awl to poke holes in each signature.
5. Set signatures aside, under weight if time allows.

Preparing the covers:

1. Tyvek does not have a grain. Trim your painted Tyvek to 7” high. Square up the short sides. Cut sheet in half vertically. You’ll have 2 pieces, 7” high x not quite 6” wide.
2. Decide which piece will be front and which back, and how you want them oriented. Acrylic ink applied liberally will soak through the Tyvek. Check out the back. You may actually prefer the ghost image there for your covers.
3. Glue the narrow, undecorated Tyvek strip on the reverse side of each piece, along the spine edges. We will be poking holes along the spine edges. This strip will serve as an additional layer of reinforcement. For this project, we’re using strips cut from Tyvek envelopes you can buy in an office supply store. The strip won’t be visible, so it’s perfectly fine to recycle a used, written-on envelope.
4. Apply PVA to book boards and glue them in place, with the board slightly overlapping the reinforcing strip on the spine edge by ⅛” or so, and evenly placed between the 3 remaining edges.

REINFORCING STRIPS GLUED ALONG SPINE EDGES

5. Clip/mitre corners of the including the Glue down bottom and side opposite NOT GLUE SPINE SIDE



all four cover paper, Tyvek strip, the top, the foredge the spine. DO DOWN THE WITH THE

TYVEK REINFORCEMENT STRIP.

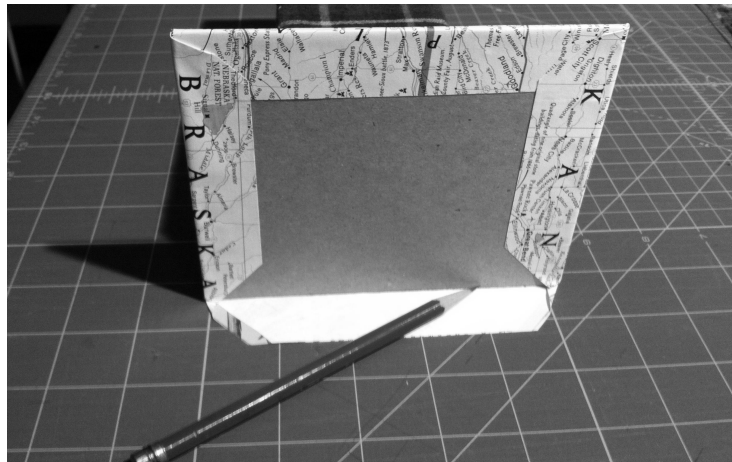
6. Place covers face down on work on appropriate book boards. Draw Use your template folded in half

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table. Lightly mark "Front" and "Back" a horizontal line halfway up each board. horizontally to find the halfway mark.

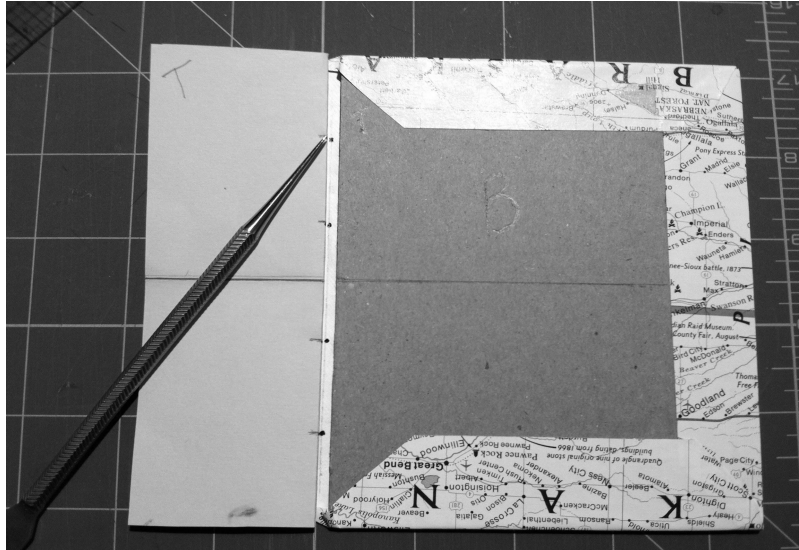
7. With your fold the open

finger, gently



Tyvek-reinforced flap over the edge of the book board. Smooth it around. Stand the board on its spine edge on your work surface, and draw a line along the edge of the board.

8. Place jig line just matching the horizontal Mark sewing halfway edge of the the line you These will line up holes in your Pierce the through the with your DON'T GLUE strip.



against the drawn, tops and the center lines. holes between the board and just drew. sewing holes with the signatures. holes Tyvek strip awl. You still DOWN that

Measuring the thread

In single needle Coptic stitch, you work with one thread. If the book is large or has many signatures, it becomes very long. If it's too long to handle comfortably, cut it in half and tie when the first piece runs out. This is one reason to measure generously.

Formula: Height of book x (number of signatures + 2 for covers) = thread length

Example: 5 ½" high x 7 (5 signatures + 2 covers) = 38 ½" thread
(I always add a few inches for good measure, so I'd cut about 42 inches.)

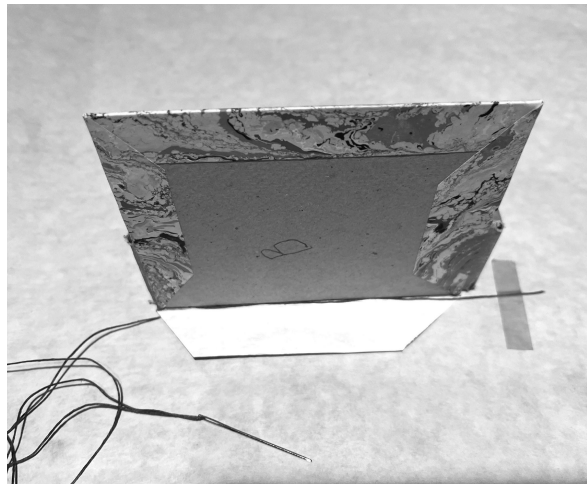
Sewing the Book

1. A curved needle will make the sewing easier, but with a bit of wiggling, you can use a straight needle as well. If you have a gas stove and two pairs of small pliers or hemostats to hold a straight needle at both ends, you can carefully heat up and bend your own needle. Thread the needle with waxed linen thread.

2. Sandwich the text block between the front and back covers, matching tops. You will be stitching through the Tyvek covers as if they were the first and last signatures.

3. Sewing the cover is the most awkward part of the process. It will help if you tape it to the work surface with easily removable painter's tape. We'll begin with the back cover. Place it on the work surface in front of you, face down, with the flap facing you, slightly overlapping the edge of the table.

4. Begin sewing the flap. Insert the hole/station from the leaving a long (7" or long thread along you've punched the the other end of the to hold it in place.

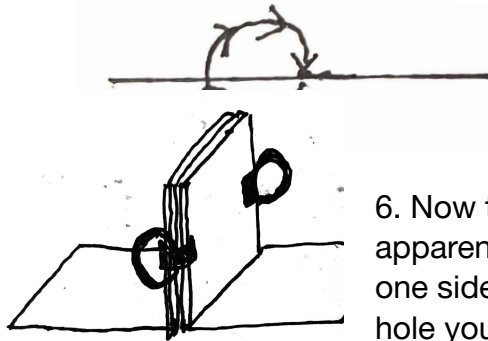


from the inside of needle into left inside and pull out, so) tail. Run that the fold where holes, all the way to book. Tape it down

5. Now attach the cover. Fold the flap closed, Place the first signature on top of cover. Your needle is on the outside left of cover. Insert it into the first matching station signature and pull through snugly, but not tight you tear the paper or pull the thread tail the tape. Move to the next hole. Bring the out the signature and into the matching hole in the cover.

Come up on one side of the long thread tail, go over it and back into the same hole on the other side, catching the tail.

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6. Now the purpose of the stretched thread tail becomes apparent. You're inside the cover. Bring the needle up on one side of the thread, over that thread and out the same hole you came in from, thereby catching the thread and making it possible to join cover to signature. That long thread keeps the stitches from pulling right out.

7. Go back into the same hole in first signature, being careful not to split the thread. Move down to the next station and repeat the process of coming out the signature, into the cover, catching the stretched tail of thread, out the same hole in the cover and back into same hole in the signature. Repeat this sewing pattern until you get to the last station. Come out the signature. Leave the thread on the outside.

8. At this point you've completed sewing on the cover. For the workshop, we'll temporarily tape the flap closed. Later glue it in place with PVA, glue in end papers, put a piece of wax paper between the cover and first page and let it dry.

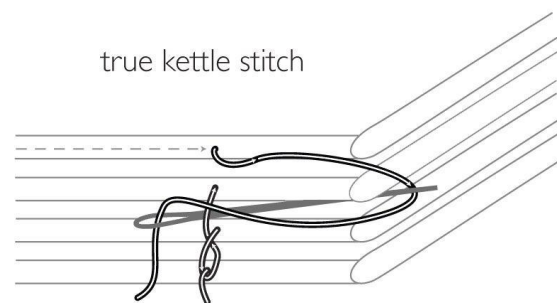
9. Put the second signature on top and begin the Coptic stitch pattern, creating chain stitches that link one signature to the one beneath it. I usually find it easier to binder clip the two signatures together, with both gutters accessible for stitching

10. You're outside the last (left) station. Insert the needle into the adjacent station above it, into the second signature. Move to the next station, pulling the needle from inside to out. Now begin making the chains. Slide the needle under the thread that connects the first signature to the cover, and pull it out the other side of the thread. Snug it up. Put the needle back into the hole you just came out of. You've made your first chain stitch. Remember the direction you've pulled the thread through. Keep sewing in the same direction for the neatest looking spine.

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CHAIN STITCH

11. You're now on the inside of the second signature. Move to the next station, come out and repeat the pattern above to create the next chain stitch. Repeat until you get to the end of the row, but stop with the thread outside before adding the next signature. Now you create the kettle stitch that will link the first and last stations on each signature.



12. Insert the needle in the same direction, this time between the two signatures. Before you pull it taut, insert the needle through the chain loop in the opposite direction you've been sewing all along. Now snug it up. This is your first kettle stitch.

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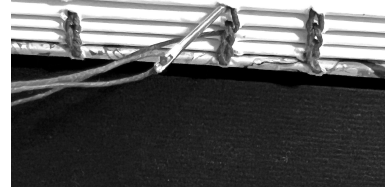


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sewing pattern of chain stitches with kettle stitches at both ends. To form the chains and kettles, you will always be moving down and inserting your needle not beneath the top signature, but between it and the one below it.

14. Follow this stitching pattern for the remaining signatures, sewing on the second cover as the last step. Tie off and trim the thread and glue down both flaps. When you're home, chose appropriate end papers and glue them in place. Insert waxed paper between covers and text block. Place the book under weight overnight or longer.

Enjoy your book!

Prepared for the CBAS Study Group by Janice Kagermeier
November 12, 2022.

This marks the 10th anniversary of nervously presenting my first version of this class on November 10, 2012 at the Art Academy of Cincinnati, before CBAS had its own studio.