

Bag of the Month

January: backpack/tote in woven shibori

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This bag is the result of an adventure in woven shibori. Traditional shibori involves handstitching a cloth and then gathering the stitching threads into areas that resist dye. When the stitching threads are removed, the dyed and undyed areas show as a pattern. With woven shibori, the gathering thread is woven in the cloth as a supplementary weft. The cloth is removed from the loom, the supplementary-weft threads pulled at the selvages, and the cloth immersed in dye. Using different threadings and/or treadlings for the supplementary weft will produce different patterns.

The woven shibori fabric for this bag is easy to weave and dye. The simple monk's belt pattern uses only four shafts and is woven in readily available yarns: 5/2 pearl cotton for the ground cloth and 5/2 rayon for the smooth supplementary weft that is pulled and gathered for the shibori (you can also use 6-strand embroidery floss for the supplementary weft with good results).

The dyeing process is a resist technique that allows dye to penetrate into only the exposed surfaces and not into the cloth inside the tight folds. This bag fabric uses indigo dye in a form that is easy to mix, fast acting, and requires few chemicals. Be sure to follow safety steps when dyeing.

The fabric is durable, has a good solid "hand," and sews well. The McCall's pattern is a sling backpack style with zippered outside and inside pockets. The bag is strengthened with fusible interfacing.



Patricia Springer of Sun City West, Arizona, weaves, dyes, sews, and teaches many weaving techniques to members of the Weavers West Guild.



DYE RECIPE

20 g pre-reduced indigo dye
60 g sodium hydrosulfite
100 g soda ash
6,000 ml water (60–70° F)

DYE SAFETY PROCEDURES

Always dye in a well-ventilated area.

Wear a dust mask or respirator when you are mixing powders.

Wear rubber gloves and old clothes.

Use all utensils and containers for dyeing purposes only.

Dispose of leftover dye properly (add vinegar to neutralize and add lots of water before disposal).





STEPS FOR WEAVING THE FABRIC AND SEWING THE BAG

Step 1 Wind a warp of 400 ends 5/2 pearl cotton 3 yd long. Warp the loom following Figure 1 using your preferred method, centering for 25" and sleying 2/dent in an 8-dent reed (16 epi). (For complete warping steps, see Resources at handwovenmagazine.com.)

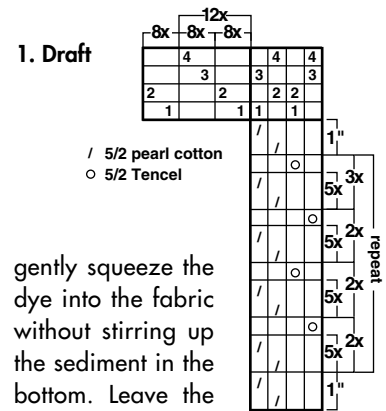
Step 2 Spread the warp with scrap yarn in plain weave. Use two different-looking shuttles for the two wefts (it's easy to pick up the wrong shuttle since the two yarns are so similar). Then weave the fabric following the treadling in Figure 1 for 76" total, beginning and ending with 1" plain weave (you can vary the sizes of the blocks for different effects). The rayon weft produces very long floats and is the thread that will be pulled to create the folds (and resulting designs) in the finished fabric. This weft does not weave all the way to the selvage; leave a 2" loop extending beyond the selvage to make it easy to grab and pull.

Step 3 Remove the fabric from the loom. Machine zigzag both ends. Along one selvage, cut the loops and pull 4 threads at a time, pushing the fabric toward the center and creating tight folds. Rework individual threads as needed to get the folds even and tight. Secure each group of 4 threads with an overhand knot tied firmly against the edge and cut off excess. Repeat along the other edge of the fabric, pushing the folds as tightly as you can, creating a bundle of tightly folded fabric about 3" wide.

Step 4 Fill a bucket or sink with hot water and add a few squirts of Synthapol or dishwashing liquid. Place fabric in the bucket and leave overnight to wet thoroughly; rinse several times. The water will be yellow because of the release of oils and dirt from the fiber.

Step 5 Use a 3 gal bucket and follow manufacturer's instructions to dye the fabric. I reduced amounts by 60% for this small project; see my recipe on page 1. (If your fabric bundle has dried out, place it in water to rewet while the dye bath is being prepared.) Pour the water into the bucket. Add the indigo and the sodium hydrosulfite and stir. Dissolve the soda ash by adding a little boiling water to it in a container (it won't completely dissolve). Add the soda ash to the bucket and stir with a dowel going in one direction in a circle. Slowly reverse the stirring direction and, before removing the dowel, drag it along the outer edge of the bucket. This will bring the foam that has formed to the center. Let the mixture settle for a couple of hours. When you are ready to dye, skim off the foam and crust on top with paper towels. The liquid should be a clear yellowish-green color.

Step 6 Squeeze out excess water from the fabric bundle. An indigo dye bath must be handled gently so as not to introduce oxygen, which reduces the effectiveness of the dye. Place the wet fabric in the bucket very carefully. Keeping the bundle fully submerged,



gently squeeze the dye into the fabric without stirring up the sediment in the bottom. Leave the fabric in the bath for 12 minutes. Lift the bundle out of the bucket while gently squeezing out the excess liquid. The fabric will be yellow-green. As air hits the dye, the color will turn blue. After 15–20 minutes, you can re-dip the fabric bundle if you desire a darker shade. Rinse the fabric bundle in cool water. Hang the bundle to dry.

Step 7 Carefully clip off the the rayon knots on one side of the fabric bundle. Pull the threads out from the other side. Wash the fabric in hot soapy water; rinse well. Machine dry or hang to dry. Steam press while fabric is still a little damp. Lay out pattern pieces to use the best parts of the dyed designs in either the lengthwise or the crosswise direction and follow pattern instructions to make the bag. Embellish the bag with dark blue upholstery-weight machine topstitching. I covered a piece of plastic needle-punch canvas with lining and placed it in the bottom of the bag for added stability and shape. ➡

PROJECT AT-A-GLANCE

Weave structure for bag fabric

Monk's belt.

Equipment

4-shaft loom, 25" weaving width; 8-dent reed; 2 shuttles; sewing machine (use a size 16 to 18 needle for topstitching).

Yarns

Warp: 5/2 pearl cotton (2,100 yd/lb), natural, 1,200 yd (9³/₁₆ oz).

Ground weft: 5/2 pearl cotton (2,100 yd/lb), 929 yd (7¹/₂ oz).

Supplementary weft: 5/2 rayon (2,100 yd/lb), 105 yd (4¹/₅ oz).

Other materials and supplies

McCall's pattern M4532; 1 yd 45" lining fabric; 1 yd 22" medium-weight fusible interfacing; one 7" zipper; one 9" zipper; 2 magnetic snap closures, if desired; sewing thread to match; upholstery-weight thread for topstitching; Fraycheck; sodium hydrosulfite; soda ash; Synthrapol, Jacquard Pre-Reduced Indigo Dye.

Yarn sources

5/2 pearl cotton and 5/2 rayon are available from the Yarn Barn of Kansas; dyes and dye supplies from Good's, (800) 909-4044; sewing supplies from Jo-Ann Fabrics.

Warp order and length

400 ends 3 yd long (allows 3" take-up and 31" loom waste).

Warp and weft spacing

Warp: 16 epi (2/dent in an 8-dent reed).

Width in the reed: 25".

Weft: 16 ppi 5/2 pearl cotton; 1²/₃ ppi 5/2 rayon. Woven length (measured under tension on the loom): 76".

Finished dimensions

After dyeing and washing, amounts produce a fabric 21¹/₂ × 69" for a bag 18" × 12¹/₂" with two 26" straps.