

The Curious Colorist

Small-Batch Dyeing for the Dabbler

SUSAN Z. DOUGLAS



Color for all

Photos by Matt Graves unless otherwise noted

Quick! What's your favorite color? I used to just say “green,” but now I find the question more complicated. My favorite is a particular shade of green, leaning far into gold, and the color is mellowed a bit. Even that description doesn't seem adequate. It also brings up another color concept, juxtaposition of color. How can I explain that I also like a particular shade of golden tobacco, but I really love it next to a bit of Prussian blue?

Exploring color interactions can be as simple as holding two or more skeins together. We all do that at yarn shops or in our own fiber stashes. Lately, I have been experimenting with knitted slip-stitch patterns, and I keep in mind the Kaffe Fassett adage, “When in doubt, add twenty more colours.” I like to make my eyes dance over the fabric. I like it when a color combination seems plain wrong but as I continue working, the “bad” part somehow fits right in.

To create the handspun palettes needed for color experiments, I often blend my hand-dyed fiber to spin into small amounts of yarn (see “Never-Ending Blending: An Experimental Method of Sequencing Batts,” *Spin Off*, Spring 2014). However, I also wanted a way to dye several small skeins of my handspun yarn in different colors at one time. Imagine having dozens of colors, shades, and tints at hand and always having the power to make even more. That's what this little exercise in small-batch dyeing is all about.

THE GATHERING

I rummaged through my handspun stash for some undyed skeins that were about sportweight, which is my favorite range for knitting. To me, this means a consistent (ish!) yarn with a grist of about 100 yards per ounce, or 1,600 yards per pound (3,225 meters per kilogram). I found some Tunis two-ply processed from fleece and some decade-old Merino two-ply spun from top. To these, I added some newly spun white Targhee top, a Bluefaced Leicester/Corriedale blend, and a charcoal Merino blend that I could overdye for darker shades. The yarns in my pile were far from identical, but close enough was good enough since I was making small amounts of so many colors. The different fiber characters and breeds would be used

together, and the occasional variation in weight or softness wouldn't pose a problem.

I had some trepidation about cutting the yarn into small skeins because it meant my full skeins could never be whole again—it changed their possibilities. However, the thought of making a fabulous assortment of colors quickly won me over, and I snipped. I made roughly three skeins from each ounce of yarn. I wanted to make enough yardage to play with, but the skeins also needed to fit into the little dye pans I planned to use. Each skein needed to fit in a mini loaf pan* and still have space to move around in the dye solution. I tied the small skeins loosely in a couple of places to ensure that they would survive the process untangled.

DYEING LITTLE BITS

I could fit six mini loaf pans in my thrift-store roaster oven, so this determined the number of skeins I could dye at one time. Because the small pans

Susan's Supplies and Equipment

- Synthrapol for presoak
- Pro Chemical & Dye WashFast Acid Dyes in Sun Yellow, Fuchsia, Bright Blue, Caramel, and Black
- Citric acid
- Noniodized table salt

Equipment

- ⅛-teaspoon measure (0.6 milliliter)
- 3-cup measure (720 milliliters)
- Squeeze bottle for each dyestock (recycled dish-soap bottles work well)
- Pint jar marked at ½ cup
- Spoon or dowel
- 12-quart roasting oven (no turkey ever again for this oven)
- Rack for bottom of oven
- 12 aluminum-foil mini loaf pans

Safety Supplies

- Mask for handling dye powder
- Gloves for handling dye mixture
- Oven mitts



Susan developed a palette of colors in small handspun skeins by just playing with—not measuring or planning—her dye mixes.

require little water for the skeins to move around in, the resulting skeins can be a bit semisolid. You may want to try using a different heat source, larger vessels and skeins, or different dye products, but this method can be a platform for you to develop your own technique.

Step 1: Presoak the Skeins

I gathered six small skeins and soaked them in a small basin of warm water and a few drops of Synthrapol, a wetting agent, for a half hour. While they were soaking, I mixed the dyes.

Step 2: Mix the Dyestock Solutions

I first selected five colors: three primaries, Caramel, and Black. In individual squeeze bottles, I mixed $\frac{1}{8}$ teaspoon of one dye with $\frac{1}{2}$ cup of the hottest tap water I could get. I doubled the recipe for yellow, since I knew I'd be using more of it than the red and blue. Making sure the cap was on and snapped down securely, I shook vigorously until no particles of unmixed dye remained.

Step 3: Mix and Distribute the Dyebath Base

I prepared a dyebath base by mixing 3 cups of hot tap water, $\frac{1}{2}$ teaspoon of citric acid, and $\frac{1}{2}$ teaspoon of salt. After squeezing most of the water out of my skeins, I arranged each in a separate mini loaf pan and added $\frac{1}{2}$ cup of the dyebath base to each.

Then I was ready to add the dyestock solutions to create new colors. I mixed the dye for each skein separately by first placing small squirts of dye into the pint jar, mixing the colors at whim. Great colors are at our fingertips even with just a few basic color-theory guides: mixing two primary colors creates a secondary color; adding a teensy bit of a color's complement can tone down brightness; a golden brown like caramel can mellow and de-intensify some brighter colors; and black will darken and shade.

I had to remind myself that the skeins were tiny, so very little dye was needed, even for saturated colors. After mixing the dye, I added enough water to the jar to make $\frac{1}{2}$ cup, lifted a skein from its tin, and poured in the dye mixture. I gave the dyebath a little stir and replaced the skein, making sure it was covered

completely. If needed, I lifted out the skein again to add a bit more dye or to add a little more water.

Step 4: Set the Dye

To steam the yarns, I placed a rack in the bottom of a roaster and added an inch or so of water. I had already determined how to fit the six pans into the oven, so I carefully placed them in. With such small dyebaths, it was important to keep the skeins submerged as the temperature rose. I punched holes in a second set of mini pans that could gently push down on each skein while still allowing the dye to circulate.

I turned on the heat to 350 degrees Fahrenheit (177 degrees Celsius) and set my timer for 45 minutes. The little dyebaths were mostly or all clear by then. (The time needed to bring small dye vessels up to temperature will vary depending on the heat source. Checking the skeins every 20 minutes or so is a good idea.) I shut off the oven and unplugged it, letting everything cool gradually. Once cool, I drained, rinsed, dried, and admired the skeins.

Mixing dyes and pondering the results when the skeins have dried is a wonderful way to explore color. Luckily for spinners, this can be just the first step in the color-theory exercise. Now I can cast on and put these little skeins to work. ●

**If you are seeking exact dyeing results, use a nonreactive dye vessel, such as glass or stainless steel. The aluminum pans used here could impact results, but they are accessible and suited this project's purpose.*

Resources

Fassett, Kaffe. *Glorious Knits*. New York: Clarkson Potter, 1985.

Pro Chemical and Dye, prochemicalanddye.net.

Remember the old toy commercials that urged kids to "collect 'em all"? Now retired and living in Maine, **Susan Z. Douglas** loves *all* the colors, and her goal is to collect 'em all.

There are many ways to experience color creation and dyeing. This method is footloose and fancy-free. If reproducible colors and measured aliquots are your jam, check out Terry Mattison's "Find Your Colors: Road Map to Repeatable Dyes" in *Spin Off* Spring 2021.



Susan used mini loaf pans to create many dyebaths at once.



A second pan placed on top of the first held the skeins down while still allowing the bath to circulate.

Photos by Susan Z. Douglas

Small Change Scarf

SUSAN Z. DOUGLAS



Photos by Matt Graves unless otherwise noted

Small scraps, big color

Spin Off
ePATTERNS

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Small Change Scarf

SUSAN Z. DOUGLAS

If *small-batch dyeing exercises* have left you rich in miniskeins of many colors, then this stitch pattern can be your payoff. It's a bit sneaky. Even a seasoned knitter might be fooled into thinking it is worked with a stranded knitting technique, but it derives its punch from easy slipped stitches alternating with plain rows.

Why "Small Change"? First, a small change to a rather unexciting knitting pattern—as happened when I first explored this motif and shifted from four rows of each color to two—is a fascinating way to explore color design. Second, this scarf pattern uses up minimal amounts of individual colors of yarn—small change in terms of yarn capital.

COLOR PLACEMENT AND A NOTE ABOUT THAT SCREAMING COLOR

As mentioned in my article "Slipped-Color Exploration" (*Spin Off* Spring 2023), value is important to make this pattern effective. For the patterned side, I generally used light colors for the solid-color rows and dark colors for the slip-stitch rows. Once in a while, I substituted a medium color for a light one, but I tried to keep the floating motifs dark for contrast. Interestingly, medium colors can be used as sort of "wild cards" because they appear dark against a light solid stripe or light against a dark stripe.

Above all, though, my objective was to have fun and enjoy seeing the juxtapositions of lots of colors. There is one *really* bright color in my scarf. Do you see it? This color is a personal favorite of mine on its own, but I paused after knitting it into the scarf. It was so loud next to the other colors. There's a pop of color, and then there's a *scream* for attention. I considered ripping out that stripe and replacing it with a safer, quieter color, but then I thought, "Nah, where's the fun in that?" I plugged my ears and let it scream.



SPINNING NOTES

This pattern can be easily adapted to other yarn weights and color sequences. Here, I used DK and sportweight yarns that resulted from dye explorations. However, you could use yarns of different weights, explore combinations of solids and gradient colors,



Swatching is a great way to sample color combinations and needle size, especially when working with handspun leftovers.

Photo by Susan Z. Douglas

and more. The yarn for the front of the scarf should be a heavier gauge than the yarn for the back, and you might also need to lengthen or shorten the scarf to accommodate gauge changes. The pattern repeat is 6 stitches, making length an easy modification.

MATERIALS

Fiber 7 oz wool, assorted colors. I used over 35 colors of yarn that were dyed in the wool, blended, or dyed in the yarn.

Yarn 2-ply or 3-ply; DK weight (about 1,200 ypp; 11 wpi), assorted colors, about 450 yd total (slip-stitch pattern). 2-ply or 3-ply; sportweight (about 1,700 ypp; 14 wpi), assorted colors, about 350 yd total (striped back). **Note:** Each 2-row color stripe uses about 12 yd; slip-stitch rows use a bit less.

Needles Size 6 (4.0 mm) 32" circular (cir) or long enough to accommodate the stitches; second cir in same size or smaller to hold sts while grafting. Adjust needle size if necessary to obtain the correct gauge.

Other Supplies Markers (m); smooth waste yarn for provisional CO; tapestry needle.

Gauge 19 sts and 48 rows = 4" in patt with heavier yarn; 19 sts and 36 rows = 4" in St st and thinner yarn.

Note: The slip-stitch pattern will appear to be 36 rows to 4", but it takes working 48 rows of the chart to get there. Exact gauge is not critical to the success of this project.

Finished Size About 6¼" × 56" plus 7" fringe.

Visit spinoffmagazine.com/spin-off-abbreviations for terms you don't know.

NOTES

- The scarf is knitted lengthwise from a provisional cast-on. The slip-stitch pattern side is worked first in the heavier yarns, continuing to plain stripes on the back side in lighter-weight yarns. The front and back are joined lengthwise using Kitchener stitch.
- The pattern repeat is 6 stitches. Two slipped stitches are worked at each edge along with 5 sts to be raveled later. An additional 5"-6" of yarn at each edge is used with the raveled yarn for fringe.



Yarn ends transformed into cabled fringes

FINISHING

Remove waste yarn from provisional CO, placing live sts onto extra cir needle. Drop the last 5 sts from either end of both needles and leave them unworked. Using the final stripe color and leaving 11" extra yarn for fringe, graft the final row to the beginning using Kitchener st. Break yarn, leaving an 11" tail.

FRINGE

The scarf is now a long, open tube with yarn strands at the short ends.

Ravel the 5 sts at either end row by row as you make the fringe. Twist each of 2 yarn ends in a pair in the same direction as the ply twist until they kink, then twist those 2 yarns together in the opposite direction. Make a very loose overhand knot to keep the fringe from unfurling. Continue along the open edges of the scarf. The tube is now fringed but still open at the ends.

To close the tube, take a twisted fringe from the patterned side and a twisted fringe from the plain-stripe side, remove the temporary knots, add more twist in the same direction to each fringe, and then twist them together in the opposite direction to form a cabled fringe. Tie a loose overhand knot. There will be about 4 single fringes on the front to every 3 on the back, so cable some of the front fringes with an adjacent fringe as needed to keep the cabled fringes at an even density. Repeat on the other end of the scarf so both ends are closed with cabled fringe.

Make a template or use a ruler to make each cabled fringe the same length, move the temporary knot to that spot, tighten the knot, then trim about ½" after the knot. ●

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