

Dyeing with Bleach

Make extraordinary patterns on dark fabrics with ordinary household bleach

by Lois Ericson

The idea of creating uniquely colored or patterned fabrics with dye or paint is certainly appealing, whether you're a garment maker or a fabric artist. If you've hesitated to get involved, or are looking for a new slant on the subject, consider this much simpler, almost equally provocative, surface-altering method: removing color instead of adding it.

There is a variety of ways to remove color (the technical term is *discharge*) from dyed fabric, but for controlled results on all kinds of fabric you generally need lots of experience and testing, plus some highly toxic chemicals. I find it much safer, and certainly a lot more fun, to simply experiment with the less-predictable but still compelling effects of applying ordinary household bleach to dark, natural-fiber fabrics, either by spraying or brushing the bleach on flat fabric ([Resist-and-spray technique](#)), or by dipping the fabric in it, after protecting part of the surface in some way from contact with the bleach ([Wrap-and-dip](#) and [Pipe-wrapping](#) techniques). That's how I created all the patterned fabrics shown here. Let's look closer at a few of the many simple, spontaneous ways to create discharge patterns with bleach, starting with the fabrics most likely to respond well.



No fancy equipment. Removing color with bleach may be the easiest surface-design technique yet. The fabric at right resulted from spraying a bleach solution over cedar boughs arranged artfully on the cloth (left).

Natural fibers only

Bleach is an effective color remover as long as you confine yourself to natural fibers like cotton, linen, and rayon. If the fabric contains polyester, the color may not discharge, since polyester is usually colorfast. This is hardly a limitation, considering how many types just of cotton there are--knits, broadcloth, denim, piqué, gauze, velveteen, corduroy, and jacquard (my favorite because there's a subtle pattern already woven in).

Black bleaches best

Obviously, the darker the fabric is to start with, the more dramatic the results will be. I tend to concentrate on black fabrics not only because they provide maximum contrast after bleaching, but because it's often surprising what colors you'll discover underneath the black as you begin to remove dye. Perhaps you've noticed how hard it is to match blacks? The reason is that fabric is dyed black in many different ways, most involving multiple dye applications starting with a wide variety of undercolors. As you remove the top layers of dye from black fabrics, expect to see white, cream, gold, pink, peach, raspberry, green, blue, brown, or gray revealed underneath, as in the many examples shown here.

I usually choose fabric in plain colors so that whatever discharge pattern I create is clearly defined, but bleaching can work on prints, too. Of course, you should experiment with any dark or medium-toned, solid, textured, or patterned fabrics you like, always being prepared for surprising (and occasionally disappointing) results as you remove color.

With a little preplanning, you can avoid having to buy the fabric to test it. When I shop for fabric to bleach, I set out with a bleach-soaked paper towel in a zip-lock bag. In the fabric store I ask for swatches of the pieces I'm considering, take the samples to the car, and wet them with the paper towel to make sure I like the colors underneath. To test fabrics you already own or have swatches of, just splash a little bleach on them in the sink, trying not to soak the whole swatch. Let them sit for a few minutes to see the discharge effect, which you can stop at any point as I'll explain below.

Yardage or garments?

I usually work with yardage as opposed to completed garments, with the exception of cotton T-shirts (children especially enjoy doing those). I like to cut out the pattern pieces to take maximum advantage of the design I discover after bleaching. But there's no reason (other than cost, perhaps) not to experiment with bleaching washable natural-fiber garments.

Assuming that your work area is big enough, I suggest you bleach lengths no more than 2 yd. long when you're working flat, so the first part you treat won't be ready to neutralize before you're done with the rest. Depending on the thickness of your fabric and your technique for keeping the bleach from the protected portions of the fabric, dipping applications may allow you to use longer pieces. When experimenting with a new technique, I like to use small pieces of fabric until I get an effect I want, but I usually work with at least 1/2-yd. pieces so they're large enough to serve as part of a garment in case they're spectacular.

The fabric can be prewashed or not; if the sizing is still in it, the bleaching solution may bead up on the surface, which could yield terrific results. The solution may be applied on dry fabric or wet. This is definitely a technique that requires play. It's difficult to have a failure, short of removing all the color; every piece is unique and has potential, since you can always bleach again, or add color back to the fabric after bleaching, using permanent markers, paints, or dyes.

Basic supplies, and extras

Here's the list of equipment I use for all bleaching experiments:

- Three 5-gal. or larger buckets (four if bleaching by dipping)
- Plastic sheeting or trash bags to cover the work surface
- Rubber gloves
- 1 qt. to 1/2 gal. fresh household bleach (different brands can give different results, so try several)
- Bleach-neutralizing chemical, such as Bleach Stop (www.dharmatrading.com) or AntiChlor (www.prochemical.com)
- Plastic spray bottle with an adjustable nozzle
- Paper towels
- Old clothes

Optional equipment, whether you spray the bleach on or dip the fabric in it, includes anything that will help you apply the bleach or protect the fabric from the bleach in interesting ways. I've used brushes, sponges, syringes or plastic squeeze bottles with narrow openings, string, pieces of wood, metal clamps, cardboard, leaves or other natural materials, lace, cheesecloth, paper cutouts, clothespins, paper clips, pieces of chain. And as you play you'll think of and discover other things that will create beautiful designs.



Have labeled buckets of water and vinegar (a neutralizing agent) near your work area, and arranged in the order you'll need them so you can halt the bleaching quickly. The bleach bucket at far right is needed only for dipping techniques.

In warm weather I like to work outside. I put a 4- by 8-ft. piece of plywood on sawhorses, and cover it with plastic dropcloths or large trash bags taped together. If you work indoors, make sure your space is well ventilated, and that your floors and other nearby surfaces can take an occasional splash of bleach. Wear rubber gloves and old clothes. And mop up the plastic covering after each masterpiece, so leftover bleach won't interfere with your next experiment.



Lois Ericson creates pale wavy patterns on this linen fabric by tearing a few pieces of cardboard into interesting curves and spraying over them onto the fabric with a mixture of bleach and water.

Bleaching and neutralizing recipes

Bleaching recipes vary depending on how you'll apply the bleach, as described below. But as soon as you've applied the bleach using either method and you're ready to stop the action, you'll rinse the fabric in water, soak it in a neutralizing solution for five or ten minutes, then rinse it again. This is where the buckets come in: you'll need two filled with plain water, and one with 4 gallons of neutralizing solution, mixed according to the instructions on the neutralizing chemical package. I set mine up in the order I'll use them, clearly labeled to avoid any mix-ups. After the last rinsing, you can wash and dry the fabric so that it's ready to iron and cut.



Resist, brushed, and drawn techniques create controlled patterns much different from the random effects of dipped techniques that formed the tie-dyed swatch at left. Photo: Scott Phillips.

If you plan to dip your fabric in bleach (check out the [Wrap-and-dip](#) and [Pipe-wrapping](#) samples to see if you like the sort of effects this produces), you'll need to fill a fourth bucket with diluted bleach. The solution I recommend is 1 part bleach to 4 or 5 parts water. Since the fabric will be submerged, the solution doesn't need to be as strong as when the bleach is sprayed or brushed on.

For brushing or spraying, use a solution of 1 part bleach to 2 parts water. For all methods, always use fresh bleach, since it will work much more quickly; it's cheap, so treat yourself to a new bottle for each bleaching session. Note that bleach discharging is not an exact science; approximate measures are close enough.

How long to bleach

I've never had a problem with bleach damaging fabric, probably because I use fairly weak solutions, so my only concern is not to remove too much color, either by soaking too long or by overspraying. After the bleach is applied, nothing much happens in under two minutes, and I never leave anything longer than eight to ten minutes. In every case, I let my eyes tell me when the fabric looks done, keeping in mind that when the fabric is wet, it will appear darker than when it's dry.

Lots of factors, including temperature and humidity, the age of the bleach, and, of course, the fabric you're using, have an impact on how quickly the bleach will act. But if you're set up with buckets handy and have tested your intended methods and fabrics even minimally (i.e., in the sink), there's not much that can go wrong.

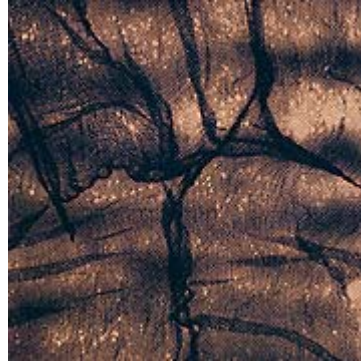
In the sidebars to this article, you'll find demonstrations of [Resist-and-spray](#), [Wrap-and-dip](#), and [Pipe-wrapping](#) -- my favorite techniques for bleaching, along with the fairly typical results I got: some examples worked well enough to go right into garments and some (we spared you these) went into the "later" file. The whole process was done, from wrapping fabric to packing up, in under four hours. Why not give it a try?

Lois Ericson teaches classes, writes books, and creates patterns. For more information, visit www.designandsew.com.

Photos, except where noted: David Page Coffin

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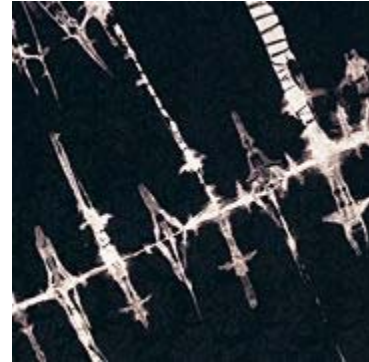
Resist-and-spray



Anything that will protect the fabric while you spray a fine mist of bleach solution over it will leave behind a pattern shaped like its outline. Choose flat, detailed objects like cedar boughs and cheesecloth. Lace and netting of all kinds, paper doilies, coins, washers, twigs, tape, cut-out paper, beads, and odd-shaped stones and pebbles can all work well. Thoroughly spray the area, and wipe off the objects with a paper towel afterward if you plan to reuse them.

Wrap-and-dip

Tying or clamping fabric with string so that portions are held loosely while others are very tightly squeezed is a good way to form a partial barrier against bleach penetration when the wrapped fabric is submerged in a bleach solution. Clothespins, paper clips, and rubber bands provide other wrapping/clamping options. Weights (clean stones, full plastic bottles, and so on) may be necessary to hold wrapped pieces completely submerged while bleaching.



In the photo at left are several lengths of folded and wrapped fabric, including an accordion-folded fabric sandwiched between pieces of wood (finished fabric in middle photo), and a long, narrow bundle that's simply folded fabric wrapped with string (finished fabric in photo at right).

Pipe-wrapping

Derived from the ancient Japanese resist-dye art of *shibori*, wrapping loose folds of fabric with string around a plastic PVC pipe (or pole, bottle, or the like) can create exciting patterns.



Start by dividing the fabric into roughly even segments and taping them around the top edge of the pipe, then wrap the fabric with a continuous length of string, allowing the fabric to fold up randomly or regularly underneath (left). Stop occasionally to scrunch up the wrapped portion (right) so it will be covered easily when dipped.



When the dipped fabric looks "done" (left), unwrap it before rinsing, neutralizing, and rerinsing. The finished fabric is at right.