Re-creating a Shaker Finish

To match a 200-year-old finish, an expert uses common tools and techniques

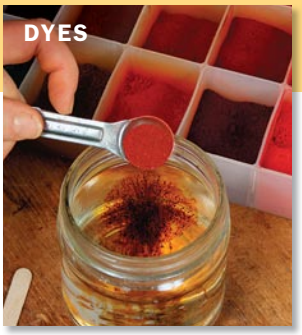
BY LINDA COIT

When Chris Becksvoort enlisted our shop to do complete reproduction finishes on his five exact copies of original Shaker pieces (commissioned by a collector), we jumped at the opportunity. Most of the work we do at East Point Conservation Studio is matching small repairs to the rest of an antique. This time, we were to match an old finish with all its subtleties—nicks, dents, crackling—on a separate, newly built piece of furniture. It's important to note that my task was not fakery, so I made no attempt to re-create oxidation on inside surfaces.

Finishing can be daunting. Whether trying to re-create a specific antique finish,

ANTIQUER'S TOOL KIT

By combining water-soluble dye powders, wood stains, shellac, watercolors, and acrylics, you can create almost any color and effect.



Photos: Anissa Kapsales

achieve a certain color, or apply a protective coating, having a broad array of techniques and materials at your fingertips will make the process more successful.

"Water dyes, gel stains, wood stains, tinted shellac …" as finisher extraordinaire George Frank wrote, "the melodies one can play on these four strings are really endless, but the beauty of the melody depends on the person holding the bow."

Remember that nothing is unfixable. So don't be afraid to try different approaches or strip off an unsatisfactory result and try again.

This article will illustrate a few ways I combined various finishes, stains, and dyes to match an antique finish. But the techniques and materials can be used in countless ways to add age or create custom colors for your furniture.

Different finishes for different areas

The original desk is nearly 200 years old and has maple frames and legs with pine drawer fronts, panels, top, writing surface, and secondary wood. Along with his reproduction, Becksvoort delivered the original piece for reference. And he dropped off extra pieces of the pine and maple used in the reproduction to serve as test boards for the finish.

The color of the drawer fronts is a warm "pumpkin pine," while the desktop and writing surface are similar in tone but have different clarity or opacity. The pine panels are a third variation on the theme. The maple on the legs and framework is a lighter, creamier-looking version of the pine panels. It was clear that I'd have to test a lot of colors and combinations of finishes to match the different tones and woods in the piece. In the end I used blond and orange shellac, powdered dyes, liquid dyes, gel stains, stains, acrylics, and watercolors to achieve the various looks in the desk.

Drawer fronts get a "pumpkin pine" look

I began with the drawer fronts, writing surface, and top, mainly because those were the most similar in color. I was able to make my initial plan work for the drawer fronts with a slight tweak, but I ended up having to remove the finish from the writing surface and top and treat them a little differently (more on that later). Because I started with a water-based dye, I raised the

Old wood for new furniture. *The furniture maker started by gathering old pine boards, ranging in age from 40 to 130 years. Some were barn boards with nail holes, rot, knots, and excessive weathering. Others were clean old boards, stored in sheds and attics but never used.*

Distressing starts before finishing

BY CHRISTIAN BECKSVOORT

Creating a new piece of furniture that looks like it has been around for a while doesn't happen only in the finishing; there is some preliminary distressing to do.

I begin before construction with the lumber. Starting with old wood, I seek out the patina of age—dark boards with a dull gray color that is the result of oxidation. Although much of that surface discoloration is removed when the boards are handplaned, the age still lingers below the surface, looking much different from freshly planed, new lumber.

To reproduce the handplane marks and hand-worked quality of the original, I took the extra time to build the piece almost entirely with hand tools. Then it was ready for surface distressing, which meant adding the scratches, dings, and dents that can be seen under the finish.

Unlike what you see on new "colonial" furniture, distressing is not haphazard. There is a method to beating up a perfectly fine desk. The rule is to distress where the piece encounters the most wear, such as the legs at floor level. Legs always get scuffed by brooms, mops, shoes, and children's toys. Writing surfaces and tops usually have a variety of nicks and scratches. There also tends to be a fair amount of wear around drawer pulls, where fingernails meet the wood. Side panels will have a few stray marks, while backs are often the most pristine.

Distressing secrets. *Becksvoort used a bundle of keys and a small chunk of brick to re-create dents and scratches that appear on the original piece.*

Dark pumpkin pine for the drawer fronts

She matched color samples to the original. *Coit tested color combinations on the same woods used to construct the desk. She kept track of the mixtures so she could easily re-create the finish.*

grain with a damp cloth. Once the wood dried, a scuff-sanding with P320-grit paper knocked off any fuzz. I mixed a combination of Lockwood powdered colors in 1½ cups of warm water and, once it cooled, applied it to the surfaces and let it dry overnight.

Next I sealed the wood using a thin (1-lb. cut) brush coat of blond shellac. I like shellac because I can mix it myself, creating thin cuts to seal and heavy cuts to build a vibrant, shimmering finish.

Once I'd sealed the wood, I realized that the dye solution was too light and had colored the grain unevenly, whereas the original had grain that was so uniform it looked as if it were painted. After more test samples, I decided to coat the drawer fronts with a nutmeg wood stain to hide the discrepancies brought out by the dye. This stain contains a great deal of xylene and petroleum distillates, so it must be used in a well-ventilated area, but those same chemicals are fast-drying, making it ready to coat in 15 minutes.

Use water-soluble dyes as a base color. *Coit used a rag to apply the dye solution to lay down an initial color (right).*

THE RECIPE

- Lockwood water-soluble dye powders (Nos. 145, 9, 45)
- Blond shellac
- Mohawk wood stain (nutmeg)
- Orange shellac
- Blond shellac

Stain evens out dye job. *After sealing the water-based dye with blond shellac, Coit deepened the color with wood stain, using a 1-in. acid brush to apply the stain (above) and a rag to wipe off the excess (below).*

Similar color for the top, but clearer

Start with water-soluble dyes again. *Wanting to avoid stain, which would obscure the grain, Coit worked hard to get the initial dye concentration just right.*

I scuff-sanded the shellac, applied the stain, let it dry, and then coated the drawer fronts with a 1-lb. cut of orange shellac. That produced a nice match, so I began building a clear coat with blond shellac, rubbing out between coats with 0000 steel wool.

THE RECIPE

- **Lockwood water-soluble dye powders** (Nos. 145, 9, 45)
- **Blond shellac** (mix in Orasol dye 2G and TransTint Medium Brown)
- **Orange shellac**

Extra shimmer for the writing surface and top

I had dyed the writing surface and top at the same time as the drawer fronts, and they also were too light. The wood wasn't as uniform as on the drawer fronts, so I didn't want to obscure the grain with a stain. I removed everything from both surfaces with alcohol and 0000 steel wool (which removed most of the dye but still left the wood lightly tinted), and re-dyed them with a more concentrated solution of the same colors. Finally, I had a base color. Still, it needed work, so I turned to a tinted topcoat. I mixed Orasol dye 2G and TransTint Medium Brown in blond shellac to create the next color. The shellac base meant that the look would be vibrant and alive, not the dull, even look of stain alone.

Brushing or padding on tinted shellac (using a piece of cotton sheet wrapped tightly around a cheesecloth interior) is tricky because you can end up with a color buildup where strokes overlap. The key to success is applying the shellac in stages (a thin cut with a tint that isn't supersaturated). A thin cut doesn't pull up and get "ropey." Although the tendency is to spread it on like paint, it's best to use one fluid motion with as little back-and-forth as possible, moving on before it gets sticky. When the color looked right, I let it dry overnight and brushed on a coat of orange shellac.

Tinted shellac adds color without hiding wood. *Not only does shellac come in a variety of its own colors (blond, orange, garnet, and seedlac), but it's also easy to tone with dry pigments or dyes. Coit used Orasol dye 2G and TransTint Medium Brown mixed in blond shellac (left) to build color and add shimmer to the writing surface and top.*

Another approach for the pine panels and maple frames

I approached the pine panels in a completely different way because the originals were very uniform and tight grained. I didn't want to pop the grain or risk dark streaks from the water-based dye or wood stain, so I coated the bare wood with golden pine gel stain. It did two great things: It set a color on the pine and kept subsequent applications from penetrating the wood as deeply. Gel stain needs at least eight hours of drying time before applying anything over it.

Wood stain penetrates more deeply than gel stain, and in some cases that's what you want. But wood stains also tend to obscure

Uniform color for pine panels and a maple frame

wood's shimmering quality, so you would never use a stain if you wanted the wood to make a statement on its own. While not my colorant of choice, it worked here because the gel stain underneath kept it from fully penetrating the wood.

I applied the nutmeg wood stain and then sealed the panels with a thin coat of blond shellac. Then I began building the finish as I had on the drawer fronts. I had intended to use blond shellac for this, but orange shellac gave it more depth and warmth.

I had the same concerns for the maple frame as with the pine panels, so I took the same approach in finishing them, sealing with the Golden Pine gel stain, coating with the Mohawk Nutmeg stain, then sealing with blond shellac and moving to orange shellac to build the finish.

SOURCES OF SUPPLY

LOCKWOOD POWDERED DYES
www.wdlockwood.com

MOHAWK WOOD STAIN, GENERAL FINISHES GEL STAIN
www.woodworkingshop.com

ORASOL DYES
www.museumservicescorporation.com

WATERCOLORS, ACRYLICS, JAPAN COLORS
www.dickblick.com

Gel stain works as a barrier. *Coit used a foam brush to apply gel stain (above) and a rag to wipe off the excess (right). Gel stain kept the next treatment, wood stain, from penetrating too deeply and obscuring the wood's character.*

Drawer pulls are quick and easy

The last item was the tiger-maple drawer pulls. First, I coated them with liquid paraffin to pop the grain. Liquid paraffin (available at www.rockler.com) is an oil pressed from paraffin wax, and shellac has no trouble adhering to it. I like the way it penetrates deep into the grain and allows the light to reflect off it. Next, I coated the pulls with orange shellac tinted with Orasol dyes (2G and 4GN). The final step was to give everything a final going over with 0000 steel wool and Kiwi Bois yellow wax, applied with a rag. □

Linda Coit is co-owner of East Point Conservation Studio in Brunswick, Maine, which specializes in the care and restoration of furniture for museums and private collectors.

THE RECIPE

- General Finishes gel stain (golden pine)
- Mohawk wood stain (nutmeg)
- Blond shellac
- Orange shellac

Wood stain keeps grain and color uniform. *She applied wood stain with an acid brush and wiped off the excess with a rag.*

Shellac seals in color and adds sheen. *Coit sealed the pine panels and maple frames with a coat of blond shellac before building up the finish with orange shellac.*

Add blemishes with creative coloring

An important part of this type of finishing is duplicating blemishes and marks. Becksvoort had already distressed the cabinet with nicks and scrapes, but Coit needed to duplicate any discoloration that appeared in the finish. She turned to a number of products not frequently used in furniture finishing, such as watercolors, Japan colors, and acrylics. Before beginning, she sealed all the previously finished surfaces with a coat of blond shellac. This protected all the prior finishing and kept any new discoloration on the surface, so she could do some trial and error without jeopardizing the overall finish. A final coat of blond shellac sealed in her work.

WATERCOLORS FOR DISTINCT MARKS

These created the dark ring and wood plugs. *Using a Yarka St. Petersburg watercolor kit, Coit mixed colors to match and then painted the plugs to match the original. Using a similar-size plastic cup as a template and the same watercolors, she painted on the distinct ring.*

ACRYLICS FOR SUBTLE DISCOLORATION

Brush on and dab for a soft effect. *The legs had slight discoloration along the bottom edge, nothing too distinct but enough that the eye could see a difference between the "new" leg and the original. To create the subtle markings, Coit used Golden acrylics (burnt umber and carbon black) with a drop of acrylic flow release mixed in, applying it with the brush as dry as possible (left) and stippling it with a fingertip to soften (below).*

JAPAN COLORS FOR STREAKS AND STAINS

Use a fingertip to feather the paint. *Coit combined raw umber Japan colors, black powdered pigment, and mineral spirits, to the consistency of light cream, to make the V-shaped patterns. Working in small areas, she brushed on (above center) and spread (right) the color to match the feathered discoloration on the original writing surface. After letting it dry overnight, she brushed on a coat of shellac and left it to dry for several days.*