

# Making Wood Look Old

*Adding texture, dye stains and glazes transforms even lumberyard pine*

by Jeff Jewitt

From a magnificent specimen of Cuban mahogany to a humble piece of white pine, wood looks better as it ages. All woods mature with use and time, developing the patina so valued in antique furniture. In my conservation and restoration business, I need to match the look of old wood to new when I'm fabricating missing parts for antique furniture.

I try to simulate the order in which the

wear and tear would have happened naturally. I start by matching the surface texture of the new wood with the old. I follow that with a dye stain, distress marks and glazing coats to add more color. Then I apply a finish to match the original.

## **Match the original surface texture first**

Furnituremakers of two centuries ago prepared wood differently from the way



we do it now. Lumber was dressed, shaped and made ready for finishing solely by hand. Their tools left distinctive marks on the wood very different from those left by modern milling and sanding methods. Edges and moldings were shaped with molding planes or carved with gouges and chisels. After planing, surfaces that would show were smoothed and evened out with scrapers or glass paper (made by pulverizing glass and sifting it over glue-sized parchment).

Even on some very fine, more formal antique furniture, you'll often find marks from tools such as rasps and files that were used to clean up the ridges left by sawblades and chisels. Molding planes produced crisp, deep profiles unattainable with many modern shaping bits. Although results may seem somewhat crude by today's standards, the goal then was the same as it is now—to produce as flawless a surface as possible.

Flat surfaces on many country-style antiques have a slightly scalloped appearance produced by fore planes, or scrub planes, and scrapers. The scallops are readily apparent under a finish and when viewed in backlighting. To re-create this effect, I ground a very slight convex profile on the blade of an old jack plane (see the photos at left), making sure to relieve the corners of the blade. A very small relief is all that's necessary. Flexing a scraper with your fingers will create a similar pattern. When you use any of these tools, small tearouts or other imperfections in the wood—a sign of handwork—should be left alone.

## **Patina is more than an old finish**

Patina is the surface appearance of something that has grown beautiful with

## **Match the tool marks**



*Period tools match the surface texture. Handplaning with a re-ground blade in an old jack plane produces the same pattern left by a scrub plane on the original hutch.*



age or use. The much desired patina on antique furniture involves alteration of both the surface color and the texture of the piece as it ages.

Wood contains natural dyes and pigments responsible for the characteristic color of each species. A change in color, a result of exposure to light and air (photo-oxidation), may be the most obvious effect of age. As a rule, light-colored woods darken, and dark-colored woods lighten.

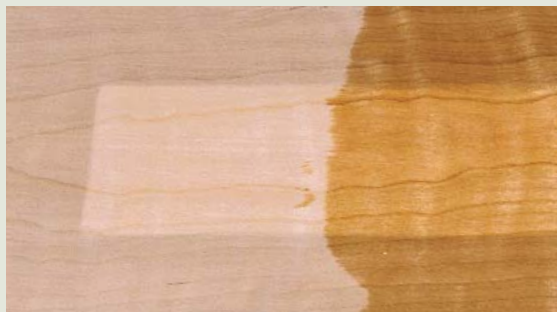
Another kind of patina develops as stains and finishes age and as wax builds up on the surface of the wood. Photo-oxidation causes dyes and pigments to fade and finishes to yellow and darken. Over the years, polishes and waxes build up in corners, cracks and crevices and act as a magnet for dust, which accumulates on surfaces that are not regularly cleaned.

Most old furniture ends up soiled, dented, scratched, eaten by insects or worn-out from normal use and handling. Oils from skin produce a grimy buildup around hardware and other areas where furniture is handled. The bottoms of legs get banged up the most. Sharp edges and corners that are regularly handled become rounded. Everyday contact with clothes and shoes will eventually wear finishes and stains down to bare wood.

**Use dyes, bleach and light to change the color of wood**—You can duplicate the effect of light on wood with either dyes or chemicals. Both produce a color change within the structure of the wood. Although their effects are similar, one very subtle difference is that dyes tend to accentuate figure and grain and chemicals do not. Dyes are, by far, easier and safer to use. They can be soluble in alcohol or water. Some alcohol dyes are extremely light-sensitive, and they will not hold their color over time. Water-based dyes tend to be less vivid than alcohol dyes and produce a more believable color. Although water-based dyes raise the grain in wood, producing a rough texture, the problem can be minimized by applying a wash coat of plain water and sanding off the fuzz after the surface dries before the dye goes on.

In almost all light-colored species, a yellowish-brown dye stain will simulate the color of aged wood. This stain color is sold pre-mixed by many companies, often called honey or amber, but you can make your own from powdered dyes in primary

## Recreate the patina



*Four hours in the sun show a dramatic color change in this piece of cherry. The center of the board was covered with duct tape to keep the light out, and the right half was coated with thinner to approximate a clear finish.*



*Test the stain on scrap first. The author used a cutoff from the new pine shelf to fine-tune his custom-mixed dye. By adding small amounts of red dye to his initial mix, he was able to get a better match.*



## Add some wear and tear



**Wire brushes abrade the surface and mimic the wear and tear of two centuries of use. Glass can also be used to make similar scars.**



**Counterfeit wormholes—After applying a shellac finish but before the final coat of dark, tinted wax, the author uses a small drill bit and the point of an awl to match damage done by worms.**



colors. The formula I use most is 10 parts lemon yellow, one part red and one part black by weight, not volume. Use this color on birch, maple and oak. It also works well for warming up the cold tones of kiln-dried walnut. Used on Honduras mahogany, it will kill the pink tone in preparation for subsequent coloring layers. With one or two more parts of red added, a nice aged pine color is the result (see the bottom photo on p. 91).

Some dark woods—rosewood, teak, walnut and old Cuban mahogany—lighten considerably after being exposed to light

for a long time. To match these woods, you may need to bleach the new wood first and then treat it with a dye stain. Use a two-part bleach of sodium hydroxide and hydrogen peroxide (for more on bleaching wood, see *FWW* #124, pp. 62-65). Avoid using any other chemicals on woods that have been bleached: A chemical reaction may create harmful fumes.

Some woods, such as poplar and cherry, darken considerably after only limited exposure to sunlight (see the top photo on p. 91). Cherry will darken in ambient

room light after a few years to a dark, reddish orange. To hasten this process, finish it with a light coat of boiled linseed oil followed by the finish of your choice. After several months, you will have a color that would normally take longer to achieve.

### ***Distressing: when and how to alter the surface***

You can imitate dents by using the tang of a file after the first coat of stain but before the glaze goes on. Scratches can be made with a piece of glass or a wire brush (see the photo at left). Very small drill bits and the point of an awl will mimic damage done by worms (see the bottom photos at left). Drill the wormholes after the finish has been applied but before the last coat of tinted wax.

To wear away edges, wrap some thick twine or thin rope around your fingers, and pull it back and forth, shoe-shine style, across the edges of tops and stretchers. To round off corners, use a brick, and then burnish the wood smooth with a piece of hard maple. Anything goes, except overdoing it. Too much wear will look contrived.

### **Finish the job with a glaze**

The best way to duplicate the depth of color in old wood is with a glaze. Glazes are thin, transparent layers of color applied over another color. Before applying a glaze, it is best to seal in the first layer of color with one or two coats of finish. I prefer shellac. To match most old furniture, the best glazing colors are brown, umber and sienna—sometimes called earth colors. You can use a pre-mixed glaze, or you can make your own if you want better control over the color.

I prefer to use a clear glaze medium (like Behlen's heavy-bodied glazing stain, which is thick and has a long open time). I tint the glaze with dry pigments. Unlike dyes that dissolve into water or alcohol, pigments are suspended in the glaze medium. I also tint with Japan colors, a kind of concentrated paint that will mix easily with oil-based products.

Normally, I do all the distressing before I apply the glaze because the glaze will collect in dents and scratches and provide a very convincing effect. I brush the glaze over the entire piece (see the top left photo on the facing page) to add an overall color effect or selectively dab it in crevices and corners where wax is likely





## Apply a glaze to add depth



**A glaze adds depth and color.** After applying a glaze with a brush (left), the author controls the amount of color left on the surface as he wipes it off with a clean rag. When he highlights some areas more than others (above), he dabs on the glaze selectively and blends it in with a dry brush. This technique will also add extra color to distress marks.

to build up (see the center photo above). The oils in glaze mediums never dry fully, so it's normal to feel some tackiness, even after several days. Glazes and dry pigments are available in many woodworking supply catalogs. Japan colors can be found at professional finishing suppliers or at some paint stores.

Glazes should be sealed with at least one coat of clear finish. It's best to spray on shellac or lacquer. If you have to use a brush, flow on a thin, 1-lb. cut of shellac without applying too much pressure. You can follow that with a varnish. The seal-coat of shellac is important because the varnish may not bond well to the glaze.

As a final step, I rub it out with steel wool and a dark wax, such as Liberon or Behlen's brown wax. My favorite is Antiquax brown wax. It's tinted with oil-soluble dyes and pigments and matches the look of built-up old wax beautifully. I apply the wax by unraveling a piece of 0000 steel wool and refolding it into quarters. I squirt some mineral spirits onto the pad, dip it into the can of wax and smear it all over the wood surface, working the wax into corners and distress marks. After the wax hazes over, I buff the surface with a clean cloth. □

*When he's not competing in bicycle races, Jeff Jewitt restores furniture in North Royalton, Ohio. His book, *Hand Applied Finishes*, and two companion videos are available from The Taunton Press.*



**Final adjustments before the finish goes on.** The author wedge-fit the new shelf into this antique dry sink and added another coat of glaze to adjust the color. When the color was right, he removed the shelf and applied a sealer coat of shellac.