

Glazes and Toners Add Color and Depth

Layered finishes allow correction, enhancement

by David E. Colglazier

Many woodworkers assume they're committed to store-bought stain colors. For some finishing jobs, though, a one-time application of stain just won't do. But by adding colored finish layers at the right time, you can alter or compensate for an existing color as you go, getting exactly the right result. Two finishing products, glazes and toners, will let you do this.

Glazing and toning can add depth and color to a finish or adjust the hue to get the look you're after. I rely on both methods in my antique-restoration work because there's no other finishing

process I'm aware of that can bring such subtle refinement or dimension to a finish. Despite their similarities, glazes and toners are used differently.

Glazes rely on an applicator to add texture or simulate grain detail. It helps to think of glazing as painting (see the photo below) because you're covering, or at least partially obscuring, a base color of some kind. Glazes usually go on just before the topcoats so that you won't disturb or cover up the brushstrokes.

Toners are generally not manipulated with a brush or rag after



Glazing transforms color and adds detail. Glazes are colored finish layers applied over a sealed base, like this painted cabriole leg. Glazes stay workable long enough for blending and texturing.

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they are applied. Think of toning as applying thin layers to alter the overall color of a piece. Spraying is best.

Glazes and toners are great for refinishing, restoration and color matching, but they aren't for every job. They require more artistic skill than other finishing methods. With glazing and toning, you need to know how to spray a finish. You often have to lock in a layer of glaze or toner by spraying a coat of nitrocellulose lacquer or shellac. If your shop isn't equipped to do this, you can use aerosol cans of lacquer (made by Deft) and shellac (Wm. Zinsser & Co.), which are readily available.

Layering is the key

The human eye is a very perceptive tool. With training, it can observe at least five variables of a finish: surface defects, wood-pore and flat-grain color, finish depth, topcoat sheen and texture. Glazes and toners rely on the eye's ability to perceive depth. By visualizing what the final result will look like two or three steps ahead, I can plan glaze and toner layers that will compensate for or correct a hue that isn't quite right. (The story on p. 79 gives a brief explanation of color matching.) Each layer, whether opaque, transparent or somewhere in between, affects the final color, texture and readability of the underlying wood.

Layering a finish is like building a house from the foundation up. Layers can be applied in many orders, but some are more practical than others. From the wood up, this might be a finish-layering sequence: tint and apply pore filler, dye or stain to get the right flat-grain color, correct the hue with a toner or semitransparent glaze, lock that in with a clear layer, add a thicker glaze for texture, tone where needed to add color or shade, and put on the topcoats. Toners can be added just about anytime in the layering process to change the overall color because, usually, they are nothing more than tinted finish. However, if you want to apply a heavy, textured glaze, you typically would apply it at the end of the layering. Unlike toners that can serve as their own barrier layer, glazes always need to be topcoated.

What are glazes and toners?

Glazes and toners are special stains meant to be applied over a sealed surface, rather than applied to bare wood. Glazing stains come as liquids in cans and are most often brushed or wiped on with a cloth. Toning stains come in aerosol cans (see the sources of supply box on p. 79). The pigments used as colorants in glazes make them opaque. Toners usually are a lacquer-based solution of dye and/or pigments. They're almost always thinner and more transparent than glazes, but here's where the terminology can get



Glazes make a leg look old. The author used glazes on three legs of a table (above) to match a leg that had darkened from iron reacting with tannin. He applied a tan base color and then defined the pores and grain patterns with darker glazes.

Wiping off a glaze changes the look. To show how color and texture can dramatically change, the author brushes and then wipes off a burnt umber glaze on one of the oak legs (right). Mineral spirits or naphtha can be used to soften or remove an oil-based glaze layer. A sampling of brushes used for texturing is in the background.



confusing. What some finishers call toner, others refer to as shading stain. Likewise, glazing is sometimes called antiquing. To distinguish some of the terms, I put together a glossary of common colorants (see the box below).

Great for restoration jobs and color matching

Old finishes are not uniform. They become worn in places, faded in others. They accumulate dings, dirt and wax from being used and polished over the years. To match the finish of an old piece of furniture, you have to fake the patina it has acquired, which can

Glossary of common colorants

The two most common colorants are pigments and dyes (not including substances that chemically alter wood color, such as bleaches). Pigment and dye stains can be applied to wood or as colored layers of finish.

The definitions (to simplify things, I omitted paints) at right are partially adapted from several manufacturers' literature and from Bob Flexner's book *Understanding Wood Finishing: How to Select and Apply the Right Finish*, Rodale Press, 33 E. Minor St., Emmaus, PA 18098; 1994. —D.C.

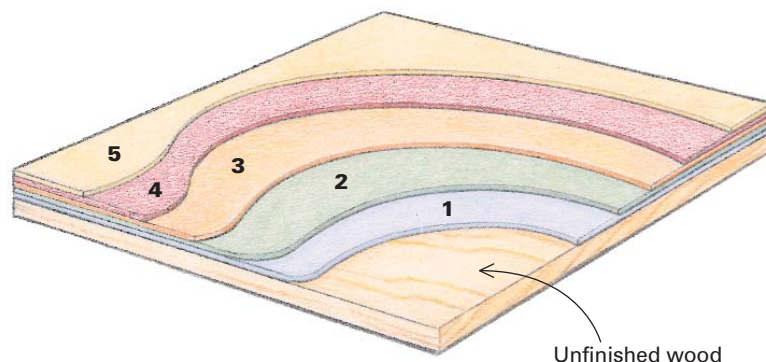
Pigments: Ground opaque particles that, when added to a binder, color wood at the surface, lodging in pores, scratches and defects. Pigment stains vary from semiopaque to semitransparent and fade slowly. Pigments are a key ingredient in glazes (see *FWW on Finishes and Finishing Techniques*, pp. 78-79).

Dyes: Tiny particles that color wood or dissolve in finish to add a transparent color layer. Dyes penetrate deeply but are known to fade. Because of their clarity, dyes offer good depth and grain readability. Dyes are often used for toning (see *FWW* #114, pp. 72-76).



Anatomy of a layered finish

A layered finish can add depth to a piece, adjust color, obscure or pronounce detail, add an aged look and permit easier repair to the finish. The order of the layers can vary. The illustration shows just one example.



- 1) Tint, fill pores and dye or stain flat grain.
- 2) Apply sealer (may be colored).
- 3) Add toning layers and barrier layers (if needed).
- 4) Use glazing layer for final color adjustment and surface texture.
- 5) Apply topcoat(s) to seal, give protection and add sheen.

be complex. Mixing up trial stains (see *FWW* #110, pp. 49-51) could get you the right color, but stains ordinarily are used directly on the wood. Once applied, they are difficult to remove. By contrast, glazes and toners are layered over a sealed base (see the drawing above). Glazes can add an unusual color or mimic a grain pattern. Toners can blend in a repair, hide a wood defect or create a special effect, such as shading. I use toners more than glazes, though I often use a combination of both in the same project.

Glazes and toners could be useful if you want to make new work look old or add a special look to a new piece, like a sunburst.

Glazes and toners conceivably could give more mileage to an undesirable piece of wood. For example, a glaze could be applied to a board to simulate figure. Or, to get wider stock for a panel, you could tone the sapwood so it matches the heartwood.

To lock in a layer, use a barrier

Glazes and toners can be layered one over the other or separated by a clear film (barrier) of finish. When you don't want to disturb what's underneath, you should spray on a barrier layer. I use nitrocellulose lacquer mostly and sometimes shellac. I avoid water-

Stains: A broad label applied to any mixture of pigments, dyes, resins and solvents that alters wood color. The percentage of pigment affects the clarity: Glazing and pickling stains are semiopaque, pigmented stains are semitransparent and penetrating stains are quite transparent (see *FWW* #101, pp. 66-69).

Glazes: A fairly thick oil, varnish- or water-based stain that contains pigments. Glazes are usually brushed or wiped over a sealed surface and spread or partially removed as (or just after) the thinner evaporates. Glazes are used for antiquing, coloring pores, accenting grain patterns and adding depth to carvings and turnings.

Toners: Fast-drying solution (usually lacquer) containing dyes and/or pigments applied to a sealed surface to alter the color. Toners are sprayed on the entire surface and left to dry. Pigmented toners tend to obscure the under-color and detail; dye toners are more transparent.

Shading stains: Designed for highlighting, shading stains are specialized toners that are applied to specific areas. They can give a shaded appearance to a surface or blend regions of color. Tinting lacquers are similar products that build quickly and are used to unify tones.



A glaze patina—The author applies dark glaze to a corner block for an old door frame to emphasize its age. After a light wash coat, he can dab on heavier coats in the recesses of the rosette and nail holes to simulate an accumulation of dirt.



Toning unifies an antique sofa table. The author often tones and glazes furniture parts separately. Here, he sprays the legs and stripped table edge with a red mahogany toner. He used pigment from a can of dark stain to glaze the edges of the stretcher. The legs were wiped with this glaze, left to dry and then shellacked.

Toner used as a shading stain—To simulate a table with a faded center, the author shades the edge of this mahogany top with a dark toner. After he rings the top with light, even coats, he can refine the look and color by spraying other toner bands.



borne lacquers because they can cause compatibility problems.

A barrier can lock in a layer of color and let you, with care, alter a subsequent layer without damaging what's under it. Lacquer barriers or lacquer-based toners can help melt one layer into the next. If a glaze layer doesn't look right, it can be removed with a rag dampened with the appropriate solvent (mineral spirits or naphtha for an oil-based glaze). Each glaze, toner and barrier layer should be thoroughly dry before you do the next. Be especially careful when spraying lacquer over oil-based glazes because wrinkling can occur if each isn't allowed to dry thoroughly. I use several thin coats of lacquer or shellac, so any solvent will evaporate completely. Certain shellacs can introduce yellowing; however, that might be what I need to give the piece a golden, aged look.

Glazes are applied and then manipulated

Glazes develop a bite on an undercoat as the solvent evaporates, but they still offer plenty of working time (5 to 10 minutes). I apply the glaze over the surface and work it until the brush starts dragging (see the photo at left on p. 76). This happens as the glaze turns flat. I can use a brush or rag to remove glaze from the high spots, leaving it in the recesses (see the photo on p. 77).

Sometimes I use a dry-brushing technique, which is glazing with an almost empty brush. The bristles stay soft, not tacky or stiff as they would if the glaze were drying. Dry brushing offers the most control for putting down a minimal amount of glaze. To soften an oil-based glaze, I apply mineral spirits or naphtha after the bite occurs. This gives me a bit more time to experiment and is especially useful when I'm matching wood patterns or texture.

Viscous glazes applied over a nonporous surface can be manipulated with rags or brushes to produce special effects. Marbleizing, graining, faux-finishing and antiquing are all forms of glazing. Glazing brushes come in an assortment of sizes and bristle types. Many finish-supply stores carry a good selection of them.

I prefer oil-based glazes because of better compatibility between brands and because the solvents don't rapidly affect the previous layers I've applied. To get started, it's a good idea to practice with just a couple of glazes from one product line. Then you can expand your range with confidence. As you get better, you can use glazes in more creative ways (see the top photo at left).

Toners are sprayed on and left to dry

Toners come in many pigment and dye combinations ranging from opaque to transparent. Transparent toners can be layered to adjust color without losing the distinction between the pores and the flat grain. I probably use transparent toners the most. They're ideal for shading (see the bottom photo at left) and for blending colors on components of an original piece (see the center photo). Using opaque toners can be like glazing. The color becomes muddier and the wood lacks grain definition, but this can be an advantage when, for example, I need to disguise a blemish. The thickness of the layer can be varied to get more opaqueness, too.

You can make your own toners by mixing dry pigments and/or alcohol-soluble aniline dyes in shellac or lacquer. For toning (shading) specific areas of furniture, I mix up a shading stain using lacquer and a low concentration of dye. I apply the shading stain in three or four thin layers so that I can sneak up on the color and not overdo it. I can always add another light layer, but if the color is too dark, it's nearly impossible to lighten uniformly. Every job hones your application skills and perception of color. □

David Colglazier and his wife, Laurie, own and operate Original Woodworks, an antique furniture and trunk-restoration company in Stillwater, Minn.

Color matching made easier

I often have to match colors that a client or a decorator has selected. It can be tricky finishing a piece so it goes well with a rug, the wallpaper, the couch fabric, the curtains and the other wood in the room. There are three things that make my job easier: a color wheel, stain-sample sticks and the proper lighting.

Color correction is the art of knowing which color additives are needed to make a certain hue. For instance, red can warm up brown, and green can cool it. As simple as this sounds, the permutations of hue become far more numerous by adding black and white to darken or lighten the color.

Interestingly, men have more difficulty at color matching than women because more men have color blindness in the red and green regions of the spectrum. I don't have this problem, but even so, I still need help with color decisions. I use a primary color wheel. Grumbacher wheels (called Color Computers) are available from Star Finishing Products (see the sources box at right). The wheels come with directions and a summary of color theory.

Stain sticks, a collection of stir sticks that are already stained, are also helpful. The sticks (I use Old Masters brand, but you can make your own) are



Stain sticks aid color choices—Guided by a fan of stain sticks, the author chose a glazing stain for this tabletop. The samples also helped the customer come up with a color that makes the veneer band look natural and blend with the chair fabric.

pinned at one end like a set of feeler gauges. I can fan them out (see the photo above) and ask the customer to determine the color direction. I don't have to make up a wall full of sample boards.

Back at the shop, I try to match colors under the same light that will be used to view the piece. True colors can change as a result of the light source. For example, incandescent light is rich in red; fluores-

cent light is predominantly blue. A balance of cool-white and full-spectrum fluorescent bulbs is pretty close to sunlight.

Recently, I replaced the fixtures in my shop with T8 lamps made by Philips, which use triple-phosphorous tubes. The tubes are very efficient. The light has a warm color temperature and a more natural look in the shop. They've made color matching much easier. —D.C.



Sources of supply for toners and glazes

Constantine, 2050
Eastchester Road,
Bronx, NY 10461;
(800) 223-8087

Liberon/Star Supply,
P.O. Box 86,
Mendocino, CA 95460;
(707) 937-0375

Mohawk Finishing
Products, Inc.
(H. Behlen & Bros.),
Route 30 N.,
Amsterdam, NY 12010;
(800) 545-0047

Olde Mill Cabinet
Shope, 1660 Camp
Betty Washington Road,
York, PA 17402;
(717) 755-8884

Star Finishing Products,
Inc., 360 Shore Drive,
Hinsdale, IL 60521;
(708) 654-8650

The Woodworkers'
Store, 4365 Willow
Drive, Medina, MN
55340; (800) 279-4441

Woodworker's Supply,
Inc., 1108 N. Glenn
Road, Casper, WY
82601; (800) 645-9292