

## Dyes and Finishes

By Bill Anderson



When I am refurbishing a plane, or making a new component or repairing an existing part, I want the repair to blend in to the existing color or patina of the wood. My goal is not to cover up the repair, but to make it less jarring in appearance. Often planes have decades or more of patina and accretion of grime, paint splotches, wax, tallow, coal dust, etc. Flattening a face or recutting a profile or replacing boxing will expose new wood without any of this patina.

**Cleaning.** When I clean a plane, my goal is to remove surface grime and paint spots, but not to remove the sun-built patina or the patina from hand use over the centuries. Denatured alcohol (DNA) will often loosen the grime. I apply the alcohol by wetting some fine Scotch Brite pads and rubbing lightly over the plane. Paint spots often will pop off since they are layered on top of the existing finish. DNA will dissolve shellac finishes if present and so this is something to be taken into account during this step.

**Coloring: Dye.** Wood can be colored with either dyes or stains. Dyes are often based on aniline dyes and chemically react with the wood fibers. The dyes will give a more even coloration to the wood and will not necessarily enhance the transition from early to late wood. There are an amazing number of colors of dyes available. The dye that I have found most useful to match the brown of molding planes is Medium Brown (#6004), made by Homestead Finishing Products ([www.homesteadfinishingproducts.com](http://www.homesteadfinishingproducts.com), phone 866-631-5429) and marketed under the name TransTint. This product is widely available, in particular at Woodcraft stores. I made up a solution of ½ ounce of dye in 1 pint of denatured alcohol. This is stored in a mason jar in the dark. Generally, I wipe the dye on, let it dry for a couple of hours, and possibly reapply dye to strengthen the color.

**Coloring: Stain.** Stains are generally coloring particles suspended in a carrier solvent. The stain particles lodge in the pores of the wood. For this reason, the contrast between early and late wood may be enhanced. I have found that Special Walnut stain (#224) from Minwax Company ([www.minwax.com](http://www.minwax.com), phone 800-523-9299) is a good colorant. This product is available in ½ pint amounts at big box stores (Lowe's, Home Depot, etc.). Generally, I will apply the stain and let it dry overnight before applying a second coat or proceeding onto the topcoat.

**Finishing: Oil.** The most common finish I use is Antique Oil Finish from Minwax Company ([www.minwax.com](http://www.minwax.com)). I have found this to be a quick drying, high build, but soft patina type oil finish. This finish is generally not available in the big box stores, but can be ordered on line from Rockler for example ([www.rockler.com](http://www.rockler.com)). I wipe or brush the finish on and let it soak in for about 15-20 minutes. On raw wood, the oil rapidly soaks into the wood. On planes with an existing finish, the oil sits more on the surface. After about 20 minutes, the oil becomes gummy, so it is important to wipe off the plane before this becomes an issue. Generally I will apply two coats over a period of 8 hours, let the plane dry overnight in a warm environment, and then lightly buff the plane with steel wool. I usually apply a final third coat, let it dry 24 hours, then buff with 40 steel wool, very fine Scotch Brite pad and/or cotton cloth.

**Finishing: Shellac.** I have transitioned from finishing with shellac to generally finishing with oil. However, shellac is a very good traditional finish and has a similar appearance to an oil finish after buffing. I generally use clear Zinsser Bulls Eye Shellac ([www.zinsser.com](http://www.zinsser.com)), product No. 00304. I do not mix my own shellac; this is a more nuanced approach than I care to bother with. This product is widely available both as a liquid and as a spray. I use both types. Generally I apply very thin coatings, and repeat every 2 hours or so to build up the finish. After 3 coats or so, I will buff with either 320 grit sandpaper, 40 steel wool or Scotch Brite pads, then apply another two coats. I generally buff finally with 40 steel wool or just a cotton rag, and possibly apply a wax coat to finish off.

**Finishing: Wax.** My favorite polish wax is clear Mylands Traditional Wax Polish ([www.mylands.co.uk](http://www.mylands.co.uk)). This company has been in business since about 1841. The wax is a combination of beeswax and carnauba wax. The wax is available in a number of colors. I only apply wax to the body of the plane, the top (visible surface) of the wedge and the finial end of the wedge, never on any of the surfaces that are meant to bed (bed, breast, or mating surfaces of the wedges). I apply the wax with a rag, let it dry a couple of hours, then buff strongly with a cotton rag.