Belligerent Finisher

John Porritt





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Author: John Porritt

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With the finishing complete, the appearance of wear is believable along the seat, sticks and comb.

The Black Chair: Backstool No. 1

he goal with this chair is to create a finish that is black paint that has been worn through over the years to expose the wood beneath, which has reddened over time. I built this chair using white elm and ash, plus one stick that is hickory, a common feature of old country chairs. When I see this in old chairs I think that perhaps the chair was made that way because of the wood that was on hand, or perhaps the hickory stick was a repair after one of the original sticks broke.

When I build a chair such as this, I avoid using sandpaper. All of the chair's surfaces are straight from the tool – shaves, planes, saws, rasps and scrapers, which lends a clarity to the finished article. If you use sandpaper, the scratches can show in the finished piece as a slight amorphous bloom.

I also leave my leg tenons a little proud of the seat, plus any small pegs that I used to secure tenons in the chair. In most old chairs, the tenons have become proud from the chair being used, and these tenons will be burnished during the finishing process to add to the realism of the work.

Surface Preparation. I begin by burning off any wispy bits of stray wood with a blowtorch, quickly going over the entire chair. Then I wipe down all surfaces with a heavy coat of water and dry it off with a heat gun. Finally, I chuck a nylon brush drum into a drill and go over the chair briefly to begin the wear process.

Apply the Nitric Acid. Nitric acid is one of the nastiest chemicals I use in finishing, and it must be handled with the utmost care. It is available from most chemical supply houses. Usually it comes thinned with water. And I dilute it significantly more: 1 part acid to 20 parts water. Always add the acid to the water – never the other way around. Also, be sure to keep a bucket of water around. In case you spill the acid, pour water on the spill to dilute it.

The acid will begin the process of aging - oxidizing the bare wood. Initially it will be somewhat orange. This will be muted as we continue the process. Unlike when using a stain, which can muddy the wood, the acid will allow the clarity of the wood to remain. Because the acid reacts with the wood, it won't be removed or wiped off when burnishing it later on.

Begin brushing the acid on one part of the chair, using a chip brush. Wait a minute and then chase with the heat gun on high heat. Observe the color. If



A quick pass over the chair with a small propane torch will remove any stray wispies from the construction process.

it looks good, continue the process evenly over the entire chair. After the acid has dried it can be neutralized with a mixture of washing soda – two tablespoons to a pint of water works well. Brush it on, work it in, then rinse it off with cold water, checking that you haven't left any white crystals of washing soda in the grain. Do all of the above thoroughly.

I cannot stress enough how necessary it is to observe all safety protocols when working this way. This method of coloring is an art, not a science – so



To test the strength of the acid, apply the nitric acid with a chip brush to a small area, such as the comb.

the need is to be flexible and very aware. It does make sense to practice and experiment on small pieces as you grow your skills and experience. At all times wear the appropriate gloves, mask, protective clothing and eyewear, making sure to be working in a well ventilated area.

To clarify: Chase the acid with a hot air gun. If it is too strong, wait about half an hour – it can lighten. If it hasn't, give it two coats of hydrogen peroxide, chase it with a hot air gun and reassess. If this looks good, neutralize with



Then use a heat gun to bring out the orange color from the acid. Adjust the mixture of the acid if necessary.

white vinegar. Should the strength of color persist, you can give it a coat of warm oxalic acid. This can then be cleaned first with warm soapy water, then rinsed with cold water. Should you find areas that haven't taken the color, you may have used far too weak a mix, put it on too sparingly or – the most likely – you may have left glue on the surface. Clean and/or scrape it off and do it again.



If any areas fail to react to the acid, try scraping those areas and apply acid and heat again.



Now apply acid on the entire chair.



Then use the heat gun to add the orange to the remainder of the acid-coated surfaces.



Washing soda dissolved in water neutralizes the acid. If you see a lot of crystals form, you can wash these off with a scrub brush and water.



Wipe the chair down with a 3-percent hydrogen peroxide solution to cut the orange back a little bit.



After the coat of hydrogen peroxide, dry it with the heat gun.

Burnishing. With the first color complete, now I begin to burnish the surfaces of the chair to compress the wood in areas where it would see wear. I begin by burnishing the front edge of the seat and the tops of the tenons with a deer antler. The antler will make surfaces that refract light and make it look as if the chair has seen significant use. Then I'll move on to burnishing the rim of the seat, rounding over its sharp corners. And then the front surface and top edges of the chair's comb.

After burnishing these surfaces with the antler, I work the tenons with the rounded end of an old screwdriver to further shape them.

Then I switch to the chainmail burnisher and work between the sticks. The chainmail burnisher is less aggressive than the antler. I then work on the sticks, legs and the comb with the chainmail burnisher, but I take it easy on the chair's secondary surfaces.

Burnishing is important because it acts as a base for the wax that is added later on. If you add wax without burnishing, the surface will look flat and lifeless.





Use a deer antler to burnish the areas that should look worn, especially the front edge of the seat, the tops of the tenons and the comb.





Burnishing is quite physical. It begins to compress the wood, bringing out tool marks and other imperfections, preparing it for the final waxing.





A chainmail burnisher gets between the sticks to burnish and mark the areas that have less contact with the sitter.