

Fine Finishing with Hardware Store Materials Outline

Does fine finishing require a lot of expensive materials and equipment? If you understand the properties of the materials listed below you can finish like a professional:

- Zinnser Seal Coat Universal Sanding Sealer
- Aerosol Gloss Spray lacquers
- Minwax Golden Oak & Minwax Puritan Pine stain
- Old Masters Heavy Bodied Cedar & Dark Walnut stains
- Old Masters Grain Filler Natural
- Red Devil Lye
- Roofing tar

Class Outline:

The key to good finishing is practice and experimentation. Most woodworkers didn't cut their first dovetail on the expensive mahogany they were using on an heirloom project. They worked on scraps of poplar first. The same holds true with finishing. The goal of class is to teach you what is in the can and what can be intermixed and what cannot. When you understand what's in the can, then you can experiment with finishes. At the end of two days you will take control of your finishing, not just observe the results after applying materials.

- I. Elements of a fine finish. You must know what you want your furniture to look like before you start, not just "settle" for a color that comes out of a can.
- II. Terminology of finishing
 - a. Color
 - i. *Stain*: ground pigment in oil with a solvent. Stain is pigment and pigment is rock. Stains color wood by lodging pigment particles in pores of wood.
 - ii. *Dye*: smaller molecules of color that penetrate wood. While pigment lodges in the pores on top of wood, dyes actually color the wood. Dyes can highlight figure and are a lot clearer.
 - iii. *Chemical changes*: Using chemical reactions to color wood is "sort of" a dye.
 - b. Seal Coat: First coat of finish.
 - c. Top coat: Any clear finish after seal coat
 - d. Glazing: Adding a pigmented stain over a seal coat or top coat.
 - e. Toner: Any clear finish with dye or pigment added.
- III. Fine Finishes have layers of color
 - a. Most factory-made furniture has layers of color.
 - b. Often times, furniture is dyed yellow and then color is glazed on in layers. Color layers are "locked in" with sanding sealer or lacquer.
- IV. Dyes, pigmented stains, and dye/pigmented stains.
 - a. Review: Pigment is rock. Dye colors wood at molecular level.

- b. Hardware store stain colors (Minwax) are designed to work well on a certain type of wood.
 - i. Puritan Pine. Pigmented stain blotches pine, so this is an oil based dye with a yellow red tint with no pigment.
 - ii. Golden oak is dye and pigment. It is greenish to counteract the red in red oak to create a golden brown color. (red + green = brown)
 - iii. Cherry: Not much pigment. Lots of dye and thinner than the other stains. Since cherry blotches with a pigmented stain, it accepts this thinned out dye “stain” better.
 - iv. Special Walnut: More pigment than others. Dark brown with greenish tint.
- c. If wood blotches, use a “stain” with more dye. If you want more intense, darker color, get a stain with more pigment.
- d. Always remember, sanding affects stain absorption. The higher grit you sand, the less stain the wood will absorb.
 - i. When staining oak, try stopping at 100 or 120 grit
 - ii. When finishing in general, don’t sand past 220 or you could affect finish adhesion. Most factories don’t sand past 180 grit.

V. The Top Coat.

- a. First ask yourself, “How tough does this finish need to be?” Not everything needs a coat of polyurethane.
- b. “Do not thin.” Why? HAPs and VOCs.
- c. Shellac – Try Zinsser Sealcoat (2lb cut dewaxed) or Zinsser Orange or White shellac (3 lb cut). Too thick? Thin with denatured alcohol.
 - i. Shellac sticks to everything.
 - ii. It is iridescent.
 - iii. Easy to brush with right brush.
 - iv. French polish can be spectacular.
- d. Spray lacquer also a good choice.
 - i. Warm aerosol cans first in a crock pot of water
 - ii. Tape two cans together to make “spray gun”
- e. Polyurethane. A tough finish but lacks sparkle. Can have adhesion problems.
- f. Waterlox. Nice amber color. A hard finish. Brush or wipe on.
- g. Brushes – Use golden taklon for shellac and most expensive natural bristle brush you can find to brush varnish. Clean varnish brush with lacquer thinner. *Never* clean a shellac brush.

VI. Lab 1-Multi-step factory finish.

- a. Dye, seal, glaze, topcoat, tone, topcoat, topcoat, topcoat.
- b. Use a hair dryer to speed the drying of the finish.

VII. Lab 2 – Stickle Mission Finish.

- a. Using grain filler to highlight pores in oak
- b. Dyes and glazing to get the red/orange undertone of mission

VIII. Lab 3 - Asphaltum Glaze: The refinisher’s secret to making things look old.

- a. Simple mixture of 1 cup of mineral spirits to 2-3 teaspoons of roofing tar.

- b. Adds iridescence to walnut, oak, cherry, mahogany.
- IX. Lab 4 - Lye on Cherry: Chemically changes the color of cherry.
- a. Mix 1 tsp of Red Devil lye with 1 cup of warm water.
 - b. Apply to wood. Allow to dry. Neutralized with 50/50 white vinegar/water mix.
- X. Lab 5 - Using stains as a glaze. On birch plywood and oak plywood.
- a. Adding color ON TOP of wood OVER a finish.
 - b. Glazes add depth.
- XI. Lab 6 The Red Green Show – how to find the color you want on a Birch ply sample.
- a. Review color wheel. Red and Green make brown.
 - b. How to see red and green. The “red trick”.
 - c. Make a color sample board of different stain combinations.
- XII. Solvents. Which ones do I need and what do they do?
- a. Active Solvents, Latent Solvents and Diluents.
 - b. Mineral Spirits and Naphtha
 - c. Denatured Alcohol & isopropyl alcohol
 - d. Lacquer Thinner
 - e. Acetone.
- XIII. Rubbing Out
- a. Rubbed satin with 0000 steel wool and wax
 - b. Automotive rubbing compounds
 - c. Scotchbrite pads
- XIV. Final Q & A.

Note: you will receive a more extensive handout with printed finish schedule at the start of class. You will also receive a listing of all materials used so they will be easy to find. If you have any questions, please feel free to call me at 812-333-0779 or email me at tim@furniturerestore.net.

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ALL SATURDAY AND SUNDAY CLASSES START AT 9:00 AM EASTERN TIME

For all classes it is a good idea to bring is a pencil, notebook, a dust mask, ear plugs and without a doubt, safety glasses and a camera, if you would like to take pictures. ● **Classes marked with dot (●) do not have a specific tool list.**
If your class requires hand tools, the tool list will be with this page. Lunch is included and will be served around noon.

Date	Class	Instructor
April 21-22, 2012	Introduction to Translucent Mineral Inlay	Stephen Hatcher
April 21-22, 2012	Fine Finishing with Hardware Store Materials	Tim Puro
April 28-29, 2012	Build A New-Lebanon Stool with a Splint Seat	Kerry Pierce
April 27-29, 2012 (Fri eve- Sun)	Making A Venerated Keepsake Jewelry Box	Paul Schurch
May 5, 2012	●Getting the Most from you Bandsaw	Michael Fortune
May 5-6, 2012	Build an Arts & Craft or a Modern Indoor/Outdoor Bench	Tim Celeski
May 5-6, 2012	Cold Bronze Casting & Mold Making	Scott Grove
May 5-6, 2012	Handplanes & Their Uses	Lie-Nielsen & Schwarz
May 19-20, 2012	●Machines: Safety, Set-ups & Uses	Steve Latta
May 19-20, 2012	Decorative Finishes with Flair	Mitch Kohanek
May 19-20, 2012	Teapots: Vessels with Carved Feet & Handles	Michael Hosaluk
June 9, 2012	●25 Ways to Machine Mortise & Tenon Joints	Jerry Forshee
June 9, 2012	●Chain Saw Safety by Stihl	Craig Walker
June 9-10, 2012	Dancing Glass: Stained Glass with a Twist	Cathy Claycomb
June 9-10, 2012	Making a Skateboard or Longboard, Parent/Child	Chris Gochnour
June 16, 2012	●Laser Marquetry: An Introduction to the Future of Veneering	Marc Adams
June 16, 2012	Making the Roubo Bookstand	Roy Underhill
June 16-17, 2012	Making a Router Table	Doug Dale
June 23-24, 2012	The Basics of Wood Finishing	Mitch Kohanek
June 23-24, 2012	Introduction to Intarsia	David Roth
June 23-24, 2012	Decorative Chip Carving	Craig Stevens
July 14, 2012	Fretboard Inlay: Secrets of Dealing with a Radius & Frets	Grit Laskin
July 14, 2012	What You Need To Know Before Starting Your Own Business	Carl Booth
July 14-15, 2012	Pattern Inlay & Decorative Borders	Steve Latta
July 14-15, 2012	Son of Skew	Alan Lacer
July 21-22, 2012	Husband & Wife Woodturning	Alan & Mary Lacer
July 21-22, 2012	Parent/Child Magic Class	Jeff Scanlan
July 28-29, 2012	Basic Veneering	Marc Adams
July 28-29, 2012	Principles of Wwkg Through the "Eyes" of a Simple Table	Keith Neer
July 28-29, 2012	Web Page for Woodworkers	Mark Sterner
July 28-29, 2012	Your Turn: Starting Out Right on the Lathe	Michael Mocho
August 4-5, 2012	Make a Beautiful European Style Cherry Cabinet	Zane Powell
August 4-5, 2012	Pyrography: An Introduction to Wood-Burning	Julie Bender
August 11-12, 2012	Making a Mountain Dulcimer	John Ressler
August 11-12, 2012	Gilding & Leafing: A Priceless Art	Peter Gedrys
August 11-12, 2012	Various Jigs & Fixtures of a Modern Boxmaker	Doug Stowe
August 18, 2012	Tricks to Installing All Kinds of Hardware	Doug Stowe
August 18-19, 2012	Hammer Veneering	David Orth
August 25, 2012	●Photographing Your Work	Michael Fortune
August 25-26, 2012	Carving Soap Stone	Mohammed Taheri
August 25-26, 2012	Really Cool Band Saw Puzzle Boxes	Jeff Vollmer
September 15, 2012	Getting Started in Spray Finishing	Mitch Kohanek
September 15-16, 2012	Back to Basics: Exploring Form	J Paul Fennell
September 15-16, 2012	Making Your Own Jigs for Accurate Mortise & Tenon Joinery	Jeff Miller
September 16, 2012	Lacquer Systems	Mitch Kohanek
September 22, 2012	Making Tambours & Angled Corner Cabinets	Zane Powell
September 22-23, 2012	●Sawing, Sorting & Stacking: How to Harvest of Log	Alf Sharp
September 22-23, 2012	Scroll Saw Potential	Marc Berner
September 22-23, 2012	Raise Your Woodworking Profile: Using Molding Planes	Williams & Mc Connell
October 6-7, 2012	Epoxy Surface Treatments for Woodworkers	Mark & Carol Hedin
October 6-7, 2012	●Machine Maintenance, Jigs & Fixtures	Powell & Dale
October 13-14, 2012	Making a Federal Executive Document Box	Headley & Hamilton
October 13-14, 2012	Taking Control of Color: The Next Step in Finishing	Mitch Kohanek
October 13-14, 2012	A Touch of Texture	Jennifer Shirley
October 20-21, 2012	The Making of Woodturning Tools, Jigs & Accessories	Alan Lacer
October 20-21, 2012	Basics of Upholstery	Mike Mascelli
October 20-21, 2012	Jigs & Fixtures for the #1 Chair	Michael Fortune