

Notes from Duck River Demonstration July 12, 2022

Kimberly Winkle designed 3 Leg Stool

Article is available in the June 2020 American Association of Woodturners American Woodturner publication

1. Kiln Dries Poplar – 3 ea. 2 X 2X 12 – 1 ea. 11/12" round 2' thick (planned)
2. Cut all joinery – seat 1" holes, 1 1/8" deep with a forstner bit – leg tenons 1" round, 1" long – from a question at the demo regarding the connection of the leg to the seat you could start the seat drilling by ever so slightly beginning the process with a 1 1/4" forstner bit just to get the angle of the seat bottom joinery

Seat:

1. Draw a circumference using a compass 2" in from the outside edge – using the compass (unadjusted) mark off 6 points around the circumference. You will get 6 equal spaces. Every other one will be the drilled mortice. Draw straight lines through each of the 6 points from the center to the outside edge of the seat bottom. They will be your alignment for drilling the mortices using the drilling jig.
2. Drilling jig – Built with 3/4' plywood – Base 18" wide 14 1/2" deep – Top sloped platform 14 1/2" X 14 1/2" – Side wedges cut from 2 X 4 material 14 1/2" long at 15 degree angle – V front 14 1/2" X 3" cut from outside top down to center. When drilling the seat with this jig the legs will be splayed at 105 degrees.





3. Use a screw chuck to attach the seat to the lathe. I like to use the tailcenter with a golf ball for safety. Round and profile the outer edge with a bowl gouge and bead the top with a spindle gouge. With a pencil, mark the top of the bead(s) lightly and the valley(s) with a dark pencil mark. You will have to remove the tail center to turn any beads near the center

Legs:

1. Attach leg material between drive and live centers. Pay particular attention to insure you center on the top and bottom ends as you want as much of a cylinder remaining as possible.
2. Turn legs round with a spindle roughing gouge
3. Turn 1" tenon 1" long on the end (careful here as you want a good fit with the 1" mortice on the seat bottom). Lightly mark the center point between the bottom of the tenon and the bottom of the leg. Turn to a "cigar shape" ROUNDING, NOT TAPER towards each end, leaving approximately 1/8" at the tenon end and maybe a 1 1/8" circumference at the bottom.
4. Mark lightly with a pencil where you want the top of the bead(s) and dark pencil where you want the valley(s). Turn with a spindle gouge

Milk Paint:

1. Kimberly used Old Fashioned brand powdered milk paint. She does not like premixed milk paint as she feels it's too much like latex paint. Wear a dust

mask when mixing. Mix to the consistence of heavy cream or buttermilk using hot water. She mentioned 1 to 1 mixing formula, water to powder. Let the mixture stand for at least 15 minutes. She then strained using a small kitchen strainer. She indicated the paint was then ok to use for today and with refrigeration tomorrow and possibly a third day. After that it will lose its binding power. I was not successful with extending the life of the mixture

2. Once the Old Fashion paint packs are opened store the remaining powder in sealed glass jars.
3. Using cheap bristle brushes and a very slow speed with lathe in reverse, start painting. You will need to apply 3 thin coats of the primary color, drying in between. Can use a hairdryer (not a heat gun) to speed up drying
4. After the 3 coats of the primary color, paint the bead(s) with one coat of a secondary color
5. As an FYI, if your wood has tannin (cherry, mahogany, etc.) you must first seal the wood with Zinsser Spray finish and the first primary color MUST be EXTRA BOND milk paint. Additional coats can be regular milk paint
6. After the last color coats are completely dry, apply a VERY THINNED coat of black milk paint
7. Once dry, lightly sand back with 150 grit sandpaper (LIGHT TOUCH)
8. Polish with 0000 Steel Wool
9. Apply paste wax or Poly. I use fast drying MinWax Poly Warm Satin