

Platter Demo for Santa Cruz Woodturners

Wells Shoemaker, June, 2019

1. Use a fully dry disc, ideally 14-16" diameter, 2" thick
2. Drill center hole with depth stop for a screw chuck with a 3" or larger contact plate
 - a. For a thin disc (<1½"), careful with depth; use circular shim if necessary
 - b. Can also use a faceplate...careful w penetration depth of screws
3. Mount on lathe, secure between centers (wary of that pin scar!), and true up the bottom.
4. True up the peripheral inch of the top, so you know your working dimensions for the rim.
5. Measure diameter into approximate thirds and mark:
 - a. 1/3 for central mortise—exact diameter determined by your chuck w jaws barely open to maximize expansion contact grip. (Typically 4-6" depending on your jaws)
 - b. 1/3 (or a little less) for foot ring
 - c. 1/3 (or a little more) for ogee (or other shape) transition up to rim
6. Shape bottom w gouge. Blended curves are generally pleasing & give optical "lift"
 - a. RPM's 400-600 range for a 15" disc. Use low RPM/high torque pulley register
 - b. Leave ½" thick lip at top for starters. More about shaping that below
 - c. Using shear scrape finish cuts, refine contour and sand to 320-400. Easiest to do this now when piece is solid and stiff before flipping it over
7. Now cut the mortise. Verify diameter, using ruler or dividers (see 5 a)
 - a. Back off tailstock, reduce RPM's, and gently cut dovetail to depth 3/16". Not necessary to go as deep as intuition might drive you, esp w hard wood. (πD)
 - b. Shape & refine the open portion of the mortise—pragmatic & aesthetic choices
 - c. For a thin disc (<1½"), consider a 4-6" glue block instead, and make a tenon to grip
8. Flip platter around & mount with expansion grip in chuck. **Secure between centers.**

9. Mark your margins of the rim. Rough out inside, leaving bulk in the center initially.
 - a. Keep between centers as long as you can for stiffness, as thin platters tend to wobble under cutting pressure
10. Develop shape of the rim. Many aesthetic choices for you:
 - a. Smooth, beaded, inlaid...textured, dyed, or decorated...it's all up to you!
 - b. Flat—strong but less appealing to “curvy” turners; will reveal warp as a flaw
 - c. Gentle convex curve feels natural in the hand, displays grain character nicely
 - d. Defined interior rim creates an “ergo” hand grip. Good for my senior fingers
 - e. Undercut rim creates cool shadow line plus enables chucking with “rubber button” expandable jaw device...or make a jam chuck with a future platter, scrap, or MDF
11. Now work on the central interior. Disengage the tailstock in order to remove that thick material in the middle. Use a freshly sharpened gouge and take gentle cuts pushing toward the center of the chuck. Heavy pressure, aggressive cuts, or dull tools tend to make piece wobble and cause spiraling...and then you get too thin (the platter, not your tummy, alas)
 - a. Develop shape and check for uniform thickness
 - b. Use traditional gouge for bottom and 3/8” bowl gouge for finish contours & undercut
 - c. *Be especially careful not to go too deep at the pinch spot. That's a can't-fix error.*
12. Sand (light touches!) and seal with product of your choice. Sand again after grain raised.
13. When you're certain you're done with top, flip platter back to allow work on bottom and finish the rough edge of the mortise. Add clever features if you wish...or keep it simple.
14. Finish of your choosing. If it's going to be used to display fruit or moist morsels, I'm partial to polyurethane as opposed to oil & wax.

I'd do anything to turn you on. Bryan Ferry, 1982