

Platter Demo #2 for Santa Cruz Woodturners

August, 2021

Santa Cruz Woodturners



Laminated Cherry Platter, 22", WS, Utah, 2019

Platters are:

- Achievable at all stages of turning...40 weeks to 40 years before the lathe
- A lovely palette for intriguing grain as well as creative human touches
- A fine avenue for narrow blanks as well as glue-up laminations of 8/4 lumber
- Remarkably popular because of practicality and intrinsic beauty
- Doable in an afternoon

Let's walk through the steps!

Wells Shoemaker, Original June, 2019. Update with illustrations for August, 2021

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How to make a platter to remember

1. Use a fully dry disc, ideally 12-20" diameter, 2"–2.5" thick, cut to a circle
2. Drill center hole **with depth stop** for a screw chuck with a 3" or larger contact plate.



You do have alternative choices.

- a. For a thin disc ($<1\frac{1}{2}$ "), careful with depth of pilot hole; use a circular shim between screw chuck and blank to keep penetration from going too deep.
- b. Can also use a faceplate...careful w penetration depth of screws
- c. Can also use a glue block, especially for blanks $< 1\frac{1}{2}$ "



Screw chuck



Faceplate



Glue block with pre-cut tenon to match optimal jaw opening

2 Platter demo. Acknowledge Kirk deHeer's teaching at Craft Supply

3. Mount on lathe and secure between centers.
 - a. Be wary of that tailstock pin scar! Use an intermediate scrap of wood, leather, or even a penny to secure the blank without leaving a hole. Or...use a tailstock with a ring contact rather than a pin.



Tailstock pin exposed



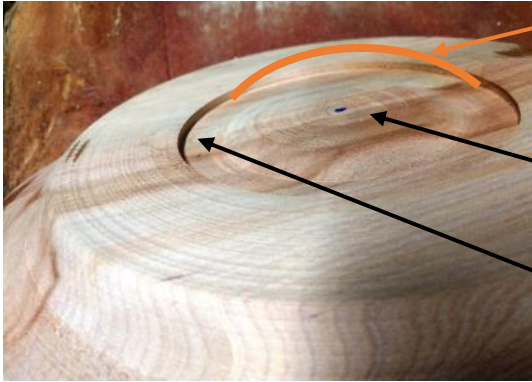
Pin shielded



Ring contact live center

4. Then true up or “face off” the bottom. Gouge or scraper, your choice. Don’t attempt further steps until that is running true.
5. While still mounted, come in from the headstock side and true up the peripheral inch of the top surface of the disc. This way you’ll know your working dimensions for the rim.
 - a. Easiest to do this now, while disc is stiff. Much harder to do when the thinner structure “waffles” with pressure.
6. Clean up the outer edge of the rim...no bandsaw marks, loose knots, bark, or defects. Freshly sharpened gouge is easier than scrapers for me, with less end grain tear out. The rim is really important for both aesthetics and stability. Better to lose a teeny bit of diameter to get that clean than to live with a visible ugly in the rim.
7. 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, splaying curve, or other shape transition to rim
8. Now cut the mortise in the bottom. Verify diameter, using ruler or dividers
 - a. Diameter minimum 4” for expansion grip to be reliable. OK up to 1/3 diameter of platter (5-7” depending upon size. Vicmarc jaws avail up to 9” expansion).
 - b. Back off tailstock, reduce RPM’s, and gently cut dovetail to depth 1/8”, maybe 3/16” with soft wood.
 - c. Not necessary to go as deep as intuition might drive you, esp w hard wood. (πD = lots of contact with a dovetail contoured expansion chuck)

- d. Shape & refine the open portion of the mortise—pragmatic & aesthetic choices. Not required, but you can allow central portion to make a “dome,” following natural curve of bottom of platter...as long as it’s not protruding.



Mortise with convex “dome” in center to add just a bit of cushion in lowest point of platter.

Center

This is the “pinch spot,” where the thickness of the bottom is most at peril with an over deep cut. See #1

- e. For a thin disc (<math><1\frac{1}{2}</math>”), consider a 4-6” glue block instead to preserve thickness. Cut a tenon on that block and leave it there until the end of project. Then pare off block and leave a subtle concavity so it will sit flat on a horizontal surface.



Typical Mortise



Glue block



Cut dovetail tenon

9. 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. Use shear scrape to finish cuts and refine contour, then sand to 320-400.
Easiest to do this now...when piece is solid and stiff before flipping it over

Underside lip contour choices, among many possibilities:



Classic ogee



Gradual flare and steep upturn



Continuous curve



Gradual flare up to incurved edge



Steep curve to narrow lip



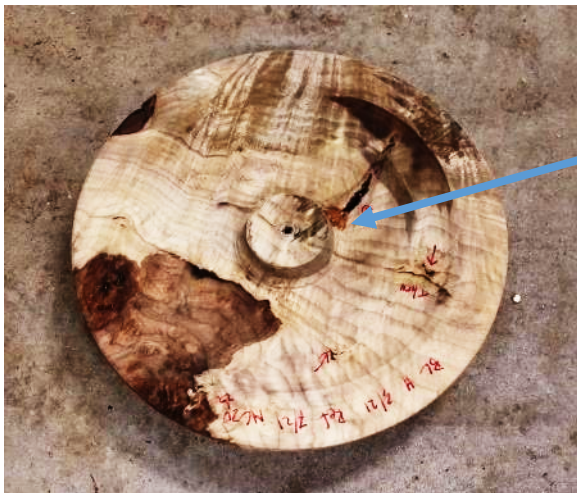
Shallow flare to abrupt upturn



Monterey Cypress

Platter bottom refined curves and sanded, ready now for the top!

10. Flip platter around & mount with expansion-gripping chuck in the mortise. **Secure between centers**...essential when blank still not completely true or when roughing cuts (or catches) create wrenching stress on mortise grip.
11. 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



Bay Laurel burl

Roughed out of top of platter. Leave bulk in middle for stability while you refine the peripheral contours...or while deeper wood equilibrates with environmental moisture

12. Develop shape of the rim. Many aesthetic choices for you:
- a. Smooth, beaded, faded...textured, dyed, or decorated...you choose! ⁱ
 - b. Flat—strong but less appealing to curve craving turners; will reveal warp as a flaw rather than a naturally flowing kindness
 - c. Gentle convex curve feels natural in the hand, displays grain character nicely
 - d. Defined interior rim creates an “ergo” hand grip. Good for security for senior fingers. (If you don’t know about that yet, you will...)
 - e. Undercut rim creates shadow line and enables chucking with expandable jaw device...or...make a jam chuck with a future platter blank, scrap, or MDF



Medium width rim to display rays, gentle curve, shallow undercut (Sycamore)



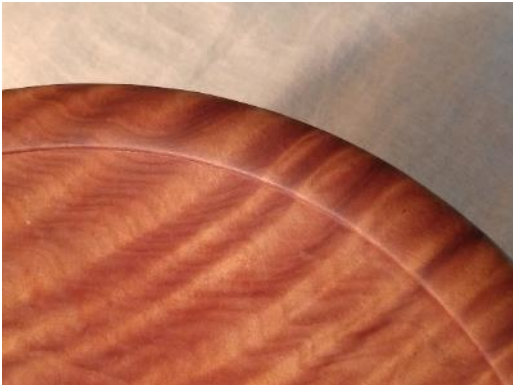
Medium width rim, contour with mild undercut (Black Acacia)



Narrow rim shallow platter, simple minimal flare (Bubinga)



Wide rim to display gaudy ray grain
Deep undercut for grip (Coast live oak)



Delicate 1/16" rim detail, shallow plate, by Richard Raffan, 2006. (Tasmanian Myrtle)

13. 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 (practice for a while first, because you have little room for repairs) and 3/8" bowl gouge for finish contours & undercut
 - c. *Be especially careful not to go too deep at the pinch spot between the peripheral cut of the mortise below and the bottom of the platter above. That's a can't-fix error, and it comes after doing all that work!*
14. Sand (light touches on softer woods to avoid deep ripples!) and seal with product of your choice. Sand again after grain raised.
15. When you're certain you're done with top, and you're all finished with sanding...flip platter back over to allow work on bottom and finish the rough edge of the mortise.
 - a. You may need to use a jamb chuck for this, possibly a future platter blank temporarily customized, or one of the "adjustable jaws" gripping devices
 - b. Add clever turned flourishes if you wish...or keep it simple.



Bay Laurel with dark band highlight for "eye"



Sierra Sequoia with natural ripples

16. Apply the 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. Lots of choices.
17. Be sure to sign it!

Recommended viewing: Craft Supply website, <https://www.woodturnerscatalog.com/> Kirk deHeer's "101 Series," new segment on platters. All of them are splendid.

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

Ain't gonna let nobody turn me 'round. –Mavis Staples, 2014



Sequoia gigantea, 2021, 19"



This platter's for Yew

Plattery will get you...Everywhere. –Mae West



"Totality," hard maple, honoring the solar eclipse of August, 2017, with a platter and box hybrid



ⁱ From *Hair*, not that different from your choices for platter rims:

Snaggy, shaggy, ratty, matty

Oily, greasy, fleecy

Shining, gleaming, streaming

Flaxen, waxen

Knotted, polka-dotted

Twisted, beaded, braided

Powdered, flowered, and confettied

Bangled, tangled, spangled, and spaghettied!