

Basic Bowl Turning Demo Storyboard

Terminology

Profiling – getting the shape you want

Finishing – getting the surface you want

Rough Turning a Basic Bowl



From the start to the end you must ‘visualize’ the bowl you want to create. To give you the best odds to go from the wet blank to the finished bowl eliminate knots, cracks, splits, sapwood and the pith. Most folks will tell you that you’ll lose 10% of your rough-outs no matter what you do. If any defects or potential defects are left in the roughed out bowl it will reduce your chances for success.

The statements made in this presentation are not to be taken as ‘absolute truth’; these are my opinions on what works best for me... in general. Your judgment on your safety, style and technique plus the unique aspects of the wood you are working with must all be considered. You will have to adapt as problems arise while you work on a bowl in order to bring your design to a satisfactory completion.

Each bowl is unique but experience pays; turn a lot of bowls to get yourself on the learning curve. You eye, hand and body all work together better when given the chance to get familiar with a given technique and type of tool.



R.1 - You don't need a big band saw to cut out bowl blanks, just knock off the 'points' with your chainsaw. Don't put tailstock into bark, cut a flat with the chainsaw or chisel to get the tailstock into solid wood. I use a faceplate and larger deck screws so I can pull the tailstock away for short periods of time if necessary. I have not had much luck with screw chucks or spur drives on Minnesota's softer hardwoods.



R.2 - Rough the blank to 'mostly' round using the roughing cut, shaft horizontal, flute open a bit, wing perpendicular to the axis of rotation.



R.3 - Once the blank is basically round and you are into solid wood drop the handle, open up the flute a bit more and use the slicing cut to create the rough profile of the bowl very quickly.

The shavings really fly but so do the water and sap; put up plastic or tarps to contain the mess.



R.4 - Practice your finishing push cut even on a roughed out bowl. From my experience smooth surfaces dry more evenly with less cracking than a 'fuzzy' surface.

Suggestion: Make the spigot 1/3 (or more) of the bowl's diameter for strength. Remember the spigot will have to be trued-up in the second turning. This gives you the option of using the spigot as the foot if you desire but it also means larger jaws for your chuck.



R.5 - Place blank in the chuck and use the lower wing in a scraping cut to flatten the face. Keep the flute fairly closed to avoid a catch.



R.6 - Use push cut to the left take off the 'knife edge' at the rim and then use a push cut to the right to act as a visual bowl thickness indicator. Jimmy Clewes uses a parting tool to accomplish the same goal in his DVDs.

Keep the thickness 10% of the diameter please. You want some thickness to 'play with' in final turning so I suggest you honor the 10% rule whether you air dry or use another method.



R.7 - Rough profile the inside of the bowl using a version of the roughing cut using lower wing and tip with a fairly closed flute.

Cut straight into side grain as much as possible, you will have to arc as you near the outside surface – see Stuart Batty's technique in the "Two Ways to Make a Bowl" DVD.



R.8 - Use a push cut to profile inside. You should be able to 'see' correct wall thickness during final profile cut if your head is positioned to left of the bowl.

I have to admit I use both right hand and left hand cuts as I work. This is not required. I switch hand to either get safely out of the way of flying objects or to give myself a better look at what is going on.



R.9 - A standard grind gouge with a steeper 60 degree bevel is handy in the bottom 1/3 of the bowl and for some types of 'difficult' grain or on very deep bowls.

Note, you are hitting end grain as you cut towards the center of the bowl's bottom. You will have a greater chance of tear-out in this area with your 40-50 degree grind, go slower if you use this gouge and you should be OK.

Air Dry to 10-12% Moisture, 6 Months Minimum... not part of demo



D.1 - I keep wet turned bowls 'on the cement' for the first month and then elevate in stages into dryer air. I get some mold this way but not much.

I'll use an alcohol soak or Anchor Seal (wax) on end grain of 'nicer bowls' to make sure I don't lose more than 10% due to cracking.



D.2 - Here is a batch of bowls on their way out to the shop for finish turning.

These bowls were roughed out over a 3 week period from 4 tree trunks removed from a co-worker's building site.

There is free wood all around you.

Second Turning of a Basic Bowl



F.1 - Remounting - I use a wooden block for more diameter, better friction and to keep the metal chuck jaws from damaging the inside of the bowl.

If you use a friction block make sure the surface runs true on the day you use it for best results.



F.2 - Use the tailstock 'mark' from rough turning to re-center the bowl over the chuck.

True the spigot round again and make sure the 'flat' where the spigot meets the bowl is actually flat.



F.3 - I use a push cut to get the outside profiled as cleanly as possible. If there is no wobble on your friction mount you can do most of final profiling and finish cuts on the outside of the bowl now. Otherwise you'll have to wait until actually mounted in the chuck.

Profile but don't bother finish cutting the bottom 1/3 (close to spigot) until later when finishing the foot. Watch shadow line at 2 o'clock to help judge depth of cut when profiling and finishing the outer surface.



F.4 - The rim will have humped up toward pith and sagged down towards the bark. Flatten it with a shear scrape.

Profile and finish the rim with push cuts.



F.5 - Begin the push cut used to profile the interior of the bowl with the flute closed and then open the flute up to 45 degrees when the bevel is supported. Watch the shadow line at 4 o'clock to judge depth of cut.

Profile and finish in thirds for large bowls, halves for smaller bowls. It is very seldom that you can cut from the rim all the way to the bottom of a bowl due to shape changes brought on by accelerated drying as you open new surfaces to the air or shifts in stress caused by the act of removing wood - the rim will move the most.



F.6 - As mentioned above, after top 1/3 of bowl is profiled grab your smaller gouge and do the finishing push cut to get the best surface. Learn to 'pick up' a new cut from where you left off with the last cut to get a smooth transition.

If you are going to undercut the rim wait until these final finishing cuts to do so.



F.7 - As mentioned earlier, the bottom 1/3 of the bowl is a transition from side grain to end grain. I find a standard grind with a 60 degree or more bevel helps reduce tear out. A larger gouge (1/2 inch this case) reduces vibration when you have a lot of overhang from tool rest.

Pay attention to the curve of the surface, the line needs to flow smoothly from rim to bottom. To me it is harder to maintain a smooth curve when using scrapers on the bottom 1/3 of the bowl so I use my gouges.



F.8 - Use the tailstock 'mark' again to re-center the bowl on the vacuum chuck (ignore for jam chuck or Cole jaws), leave the tailstock in place as long as possible for all mounting methods.

Use a scraping cut to remove or flatten the spigot.



F.9 - Design your foot and transition into main body of the bowl finally turning that bottom 1/3 of the outside surface. Assume you will **not** be able to cut to the rim, make your cut fade out to nothing before you get to the section of the bowl that has warped as it almost always will during this process, shear scrape transition if needed.

Push cut across foot bottom must be very gentle, make sure you 'dish in' enough to make it sit solidly on the table.



F.10 - Sanding and finishing is another demo. I try to cut cleanly enough with the tools to start with 120 grit. If 80 grit is required go easy to retain 'tool cut' look to the surface. Stay off the rim, beads and all fine edges until 180 grit. I use a 120, 180, 220 and 320 grit sequence for utility bowls.

My utility finish is walnut oil and beeswax mixed 4 to 1 by weight; heat, mix and let cool to form a paste. Similar to Mahoney's "Oil Wax" finish, thicker than Howard's Butcher Block Conditioner, etc.