

# Turning a Three-sided Bowl

Craig Timmerman    craig@armadillowoodworks.com    www.armadillowoodworks.com



## BLANK PREPARATION

- Start with a perfect cube. 4" x 4" x 4" is a good starting size. It can be a little smaller, but don't use one less than 3 x 3 x 3 for your first one. The blank should be free of defects.
- Make a place for drive center and live center by cutting off the tip of two opposite corners. Using a jig makes this easier/safer to do on the bandsaw. Find the centers of these two opposite corners



## TURN TENON ON BOTTOM

- Mount the piece between centers on the opposite corners. The bottom of the bowl should be facing the tailstock.



- Remove material to create a tenon on the bottom. As you remove material, you will see a triangle base appear, this triangle will become the foot of the bowl.
- The more material you remove, the bigger/wider the base will become. You want to remove enough to give good base, but also need to remove enough so you can create a tenon on the bottom
- Make your cuts like you were creating a shallow bowl, this will give the legs an arched look.

- Make light cuts as you are turning a combination of side and end grain. This can be a bit “grabby”.
- Cut a tenon that fits your chuck. You should have solid wood all the way around—don’t leave any flat spots. Make the tenon as small in diameter as possible for your chuck, but large enough so the little spigot that is left behind the tenon, will fit between the jaws of the chuck.



### TURN THE OUTSIDE SHAPE

- Re-mount the blank into a four-jaw chuck on the bottom tenon. Bring the tailstock up for additional support.
- Remove material to form outside shape of the bowl. Use the “ghost” image of the corners as they spin around to help guide you.
- Take light cuts. You will need to make cuts from the bottom (top side of the legs) to give you space to continue the bowl shape of the top.



### TURN THE TOP-SIDE OF THE LEGS

- Match the arch you created on the bottom or make sure you leave enough material to make a uniform arch when you reverse the piece later to remove the tenon.
- Main complexity is the area where the bowl meets the legs as there is not much room to work. This is easier if the bowl and legs form a wide “V”, not a narrow one. If needed, use a detail gouge or skew to make the final cuts.
- Making the legs have more arch keeps them away from the bowl and makes this area easier to sand. You can also make a cove where they meet or put some other detail there to separate them



### SAND THE OUTSIDE

- Must power sand if you are sanding with the lathe running. Hand sanding any non-round pieces is very hard on the fingers!
- The area where the bowl meets the feet is the most difficult. If needed, I use a modified 5” sanding pad to reach in this area.
- If you cut a deep “V” in this area, you may need to use a simple jig. Wrap sandpaper around a long, thin piece of wood. The wood needs to be long and wide enough to extend past the wings and feet of the bowl to keep your fingers away.

## TURN THE INSIDE OF THE BOWL

- With the tailstock still in place, begin removal of the inside of the bowl. Make light cuts as you are turning a combination of side and end grain. These cuts can be a bit “grabby”. Turn as much of the inside as you can with the tailstock in place, then remove the tailstock.
- Finish the wing area of the bowl first, then move on to the rest. Once wings are turned, don’t go back to them as they will probably be vibrating too much for any further cuts.

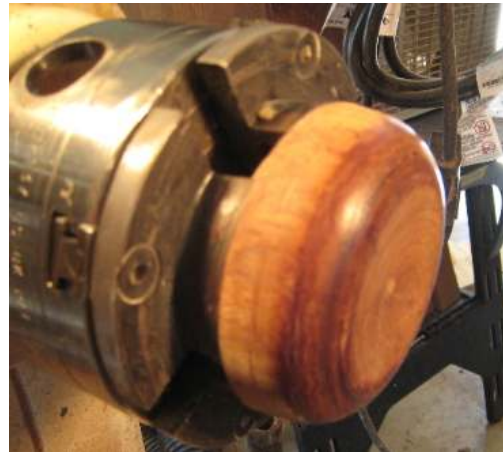


- As you get to the bottom, pay attention to where the bottom will be. The outside shape will probably look like the bowl disappears into the base/foot area—you may want to be a little more shallow than that or you might end up with a great looking funnel when you turn off the tenon later
- Power sand the inside



## FINISHING THE BOTTOM

- A vacuum chuck works best for finishing the bottom of these bowls, but they can be done without one.
- Chuck a small 3” x 3” waste block and turn a convex shape, with a concave area in the middle (think donut).



- Reverse the bowl onto this waste block with a piece of leather between the bottom of the bowl and waste block. Bring up the tailstock to hold in place.
- Carefully clean up the bottom and remove the tenon. Match the bottom of the legs to the shape of the top of the legs. Remember how far down you hollowed out the bowl!
- Slow your speed and turn away as much of the wood between the tailstock and the bottom as you can. Manually cut off the rest.
- Use rotary tool or sander to clean up the bottom and sand the entire bottom.
- Apply the finish of your choice

