

# *Cindy Drozda*

*"The Fine Art of Woodturning"*

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## **Wildfire Chalice Natural Edge Burl Bowl**

### **Part 1: Prepare the blank:**

I am starting this project with a piece of burl, with a natural top. Today's project uses a piece of Maple burl about 5" – 6" (125mm – 150mm) in diameter.

Here is my way to balance the natural edge so that the bowl has a relatively level-looking rim. This method works equally well on wet or dry wood. If I am starting with wet wood, I will turn the piece with a thick wall, seal the cut surfaces, let it dry, and then turn the final shape once the piece is dry.

Choose a plywood disk with a countersunk center hole that is the intended size of the finished bowl's rim.

Position the disk on the natural side of the burl (the "top" of the bowl), with the circumference of the disk where the intended rim will be. Screw the disk onto the blank with a flat head screw making sure that the screw head is flush with the surface of the disk.

Measure down to the burl's surface from the edge of the disk all around. If the dimensions suggest a good balance of the rim, you are ready to cut. If it is not balanced to your satisfaction, use wedges under the disk to achieve a balance that you like.

With the plywood disk down on the bandsaw table, make a straight cut on one side of the blank (try not to cut into the plywood). This surface that you just cut is perpendicular to the rim of the bowl.

Put the side that you just cut on the bandsaw table, and make a straight cut on the bottom side of the bowl, parallel to the plywood disk. The bottom of the blank is now parallel to the intended rim.

With the bottom side of the blank on the bandsaw table, you can saw around the plywood disk (again, trying not to cut the disk), and you will have a round blank to take to the lathe.

Use the disk's center hole to find the center of the bottom of the blank.

Put the blank between centers on the lathe, with the drive center on the natural edge side (the rim of the bowl), and the live center in the center mark that you made on the bottom side of the bowl.

If the natural burl surface is too lumpy to get the drive center where you want it, the surface can be leveled by making a shallow cut with a forstner bit in the drill press.

Take a cut to true up the blank to round. If the rim looks balanced to your satisfaction, you're ready to cut a chuck tenon. If the rim is not quite right, reposition the live center to "rock" the blank and find a good balance to the rim. Make very small adjustments, and take a cut every time you move the live center. Every time you reposition the tailstock, you are going to make the bowl smaller.

When you have the rim balanced to your satisfaction, cut a chuck tenon on the tailstock side of the blank.

Mount that tenon in the chuck, and you are ready to turn your bowl!

### **Part 2: Turn a bowl**

Many bowl turning methods and shapes are good practice here, so I am going to leave the rest up to your imagination and desire.

I like to develop the rim thickness (inside and outside) in the interrupted area while the piece is in the chuck, keeping the wall thickness consistent in that area of the bowl.

Use of Negative Rake Scrapers can produce a smooth finish in the interrupted edge area that needs very little sanding. I do not sand the interrupted area while the lathe is spinning, in an effort to keep the edges crisp. I like to use a random orbit sander with a 2" or smaller pad to sand the natural edge area, starting with 240 or 400 grit.

To color the bowl, I will use a negative rake scraper to smooth the surface, apply a dark color of dye, and then scrape most of it off. That will leave color in the areas of deepest dye penetration, highlighting the figure of the burl. This technique does not work well on non-burl wood. After the first dye color is done, I will completely sand the surface before adding more colors.

If I want to make a lidded bowl, I will cut a recess for the lid after completely shaping and sanding the inside of the bowl.

Keep in mind that a spinning natural edge is like a spinning saw blade! It is a good idea to keep your body parts well away from that edge! I use the tool rest as a barrier, and make sure to keep my hands on the side away from the bowl at all times.

Though it may seem "safer" to turn at a slow lathe speed, you will have better results on a live edge with as much spindle speed **as you are comfortable with**. An interrupted cut, such as natural edge, acts more like a solid piece of wood the faster it spins. At really slow lathe speeds, the tool feels like it is getting "sucked in" to the cut, and it is difficult to get a smooth surface.

Another word on spindle speed: If it's scary, the lathe is going too fast. If the lathe is moving around the room, it's too fast. **Use your own judgment, and do what feels safe to you!!**

### **Part 3: Reverse the bowl to finish the bottom:**

Because a natural edge bowl's rim is not all on the same plane, I will use a formed friction block to reverse mount the bowl.

To best support the edge, choose a waste block larger in diameter than the bowl's rim, and 1"/25mm or more in thickness (depending on the shape and size of your bowl).

Turn the waste block to conform to the shape of the inside of the bowl at the rim. Make the surface of the waste block smooth or it will press its tool marks into the bowl's surface. Negative Rake Scrapers are good for getting a smooth surface, as well as for fine shaping of the waste block.

Bring up the tailstock and finish the bottom of the bowl.

For the last little bit in the center, the bowl can be taped onto the waste block and the tailstock removed. Very light cuts, here!

When I want to mount a pedestal made from a separate piece of wood onto the bowl, I will turn a tenon on the bottom while the tailstock is up. The pedestal piece is then created with a recess to fit that tenon.

This reversal can be done with vacuum chucking also.

Note: The form block method doesn't work too well for bowl shapes that have the opening smaller than the largest diameter. For that shape of bowl, I would use a friction block that pressed up against the bottom of the bowl, with the tailstock keeping the bowl in place.

Another note: You will notice that I do not use foam between the waste block and the bowl. I feel like any thickness of foam gives a less solid setup. If I am using a soft wood, and am afraid of marring the bowl's surface, I will put a single

layer of non-overlapping masking tape, or one sheet of thin paper towel, over the waste block while reverse turning the bowl.

#### **Part 4: Please Turn Safely:**

**Keep the tailstock up to the work whenever possible. This is always a good idea. For the safety of your work piece and your self!**

**Be sure the tool rest and tailstock are tightened down and don't have a tendency to move. This is especially important when turning a natural edge blank between centers. Keep checking the tailstock pressure as you turn, as the wood can compress from the turning force and loosen up between centers.**

**Be sure the chuck is tightly fastened to the lathe spindle, and that the jaws are tight. If you leave for awhile, re-check the jaw tightness before turning on the lathe.**

**Keep all body parts away from the spinning natural edge rim**

**Always stop the lathe before repositioning the tool rest. This is good practice all the time, but even more so with a natural edge piece.**

**Wear eye and face protection at ALL TIMES**

**Use your own good judgment, and only do what feels safe to YOU**

**A disclaimer: What I have written here, and what you see in my demos and workshops, is merely my way of doing woodturning. There are as many different methods as there are woodturners, and if it gets the job done safely, we are all "doing it right". If you do things differently, and it works for you, I am not arguing or telling you to change. I am just offering another possibility. It is my hope that you will learn something useful from what I share. Please accept this information only for what it is: my way, my opinion, but not the only way to do things.**

**Oh, and above all, be sure to HAVE FUN !!**