

Ask the Pro

Finishing Bowl Bottoms

Between September 2009 and March 2010, the C.O.W. newsletter featured a forum in which members could ask the club's more experienced woodturners questions. What follows is one of the questions asked and a pro's answer.

When people pick up a turned bowl, one of the first things they do is to run their finger over the inside center of the bowl to check for a pimple or dimple in the bottom. I have trouble getting rid of the pimple or dimple. Can you give me any suggestions on how to get a better finish to the bottom of my bowls?

Floyd Anstaett:

There are several things that need be done in order to produce a nice smooth, flowing curve from rim to rim on the inside of a bowl with no irregularities at the center of the bottom.

Probably the first has to do with realizing that the surface speed of the material slows down as it nears the center of the bowl. Because of this, it's necessary to slow the movement of the tool being used as it approaches the center. When you arrive at the center, the tool should be almost stopped and you should be allowing the wood to come to the tool rather than pushing the tool with any force. Be careful not to travel past the center with your gouge or scraper.

Another thing one might bear in mind is that, if you are going to be stuck with a small irregularity at the center of the inside of the bowl, a pimple is always easier to deal with than a dimple. A pimple is fairly easy to sand off, whereas all of the material adjoining a dimple has to be sanded or turned down to match the depth of the dimple.

If the shape of the bowl allows it, it's always easier to use a gouge across the bottom of the inside of a bowl because of the directional stability provided by rubbing the bevel during the movement of the gouge. I have a gouge that I have sharpened just for use in the bottom of bowls. It's has a very short bevel. I've never measured it, but I would guess that the bevel is ground to probably 75 or 80 degrees. When using a gouge that's sharpened to the fairly common angle of about 45 degrees, as the cutting edge gets close to the bottom the handle or the shaft of the gouge may come into contact with the rim of the bowl and prevent the bevel from rubbing. This can result in a loss of control and a rough cut. At this point I will change over to the short beveled gouge. The short bevel angle that's ground on the gouge that I use to cut across the bottom places the handle in a different location and allows me to rub the bevel right up to the center point.

Alternately you can use a sharp scraper to smooth up the bottom. This works well but generally requires a fair amount of practice to get good at it. I use both methods as

required.

When sanding a bowl, the variation of the surface speed needs to be dealt with in order to prevent any irregularities from forming at the center.

Upon completion of the turning process I will usually use a 2 or 3 inch Velcro sanding disc in a sweeping motion across the bottom of the inside of a stationary bowl. Actually what I usually do is remove the bowl along with the faceplate or chuck that I am using to hold it, take the assembly to the drill press in which I have installed a 2 or 3 inch sanding disc, and move the bowl in a sweeping motion under the rotating disc in order to sand out any irregularities that have been left during the turning process.

When I finish sand, I use "J" weight, flexible cloth-backed aluminum oxide sheets cut into 1 1/2 inch X 5-1/2 inch strips padded with used Scotch Brite abrasive pads. With the bowl revolving on the lathe, I sand from the center out to the rim on the inside. To prevent the development of any irregularities in the bottom of the inside of the bowl during the sanding process, I fold the abrasive into a pad and hand sand the bottom between each grit. This is done using a sweeping motion across the bottom. This is done quickly, usually taking about 15 to 20 seconds for each grit. Doing this keeps the rim to rim curve flowing smoothly across the bottom.