Long Island Woodturner's Association Newsletter

August Issue
August 15, 2020

Steve Fulgoni

Turning an End Grain Bowl

LIWA is a chapter of the American Association of Woodturners. Our purpose is to foster a wider interest and appreciation of woodturning on Long Island and in the Metropolitan area. We generally meet on the third Saturday of each month from 9:00 AM until Noon at the Old Bethpage Village Restoration, Bethpage, L.I. See listing below for 2019 scheduled meetings:

Upcoming Meeting Schedule for 2020. All meetings run from 8:00 am to 12 noon

Sept 12 (Jim Moloney – Segmented Turning)
Oct 17 (open)
Nov 28
Dec 19

Club Officers
Chair of the Board: Ken Deaner
President Les Hoffman (516) 431-2280
Vice President Barry Saltsberg (516) 349-1914
Secretary/Newsletter Barry Dutchen (516) 443-5342
Treasurer Joe DeMaio (516) 766-5189

Members at Large
Steve Fulgoni
Jodi Gingold
John Kowalchuk
Jim Maloney
Paul Permakoff
Pete Richichi

Thanks to photographer Bob Fentress for his screen shots.

Summary of Meeting
We streamed our meeting and demo via Zoom. Steve was gracious to use his shop to demonstrate selecting the right kind of wood and making an end grain walnut bowl

Treasurer's Report
No report

New Member
Bob Lerner, Farmingdale

Show-and-Tell






Main Event

Steve Fulgoni

Presents:

Turning a Walnut End Grain Bowl

A benefit of end grain turning walnut is that you can create a bowl that has the lighter (sapwood) at the outer edge and the darker (heartwood) toward the bottom and it dries more evenly, avoiding cracking.

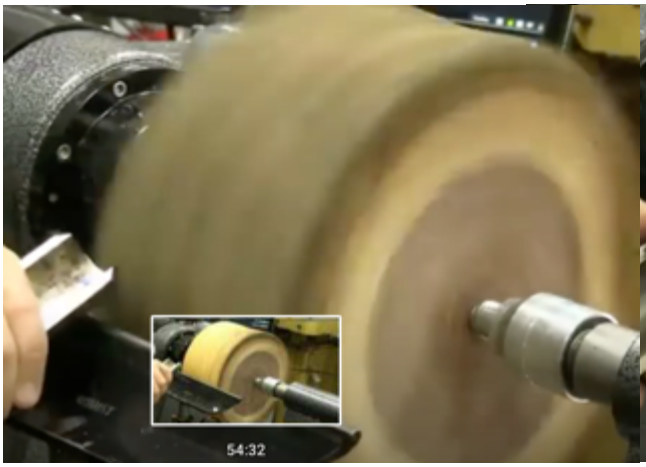
The key to doing this is to find a straight/round tree. Aim for a log that's very round with the sapwood as an even band around the outside of the log.

Steve uses a center finder rule to locate the center of the heartwood

He chooses the surface which will become the bottom and presses it against the drive center (Robust – "cup drive with bowl drive attachment"), bringing up the tailstock for support.

Cutting:
Since we are end grain cutting, the grain appears exactly like spindle cutting, that it, the grain runs parallel to the lathe bed, unlike if the bowl was a standard side-grain piece. Then you would never use a roughing gouge. So, here, Steve uses a spindle roughing gouge.

When turning an end grain bowl, the tool path for "downhill cutting" is the opposite of a side grain bowl. Ideally when turning the outside of the bow, you would cut from large diameter to the small diameter (like a spindle cove). When hollowing the inside of an end grain bowl, you should cut from the small diameter to the large diameter.



For this large piece, Steve starts by setting the tool rest above center (about ½"). The tool rest will be lowered when the diameter is reduced. Tool is locked against body at hip. Move feet and hips not arms. Lathe turning at about 700 rpm.

BTW, this piece is freshly cut greenwood (about 1 week old). Steve gets ribbons of shavings when he cuts. At this stage, he's aiming to just remove the bark.

Holding the roughing gouge as shown below makes it very "skew-like"

However, be careful, the part of the roughing gouge that's actually doing the cutting – ie, the part that is in contact with the wood, MUST be supported by the toolrest!

Lower tool rest to "normal" position – slightly lower than center and begin working on the end grain. This is difficult to do, so Steve uses a bowl gouge and cuts downhill.

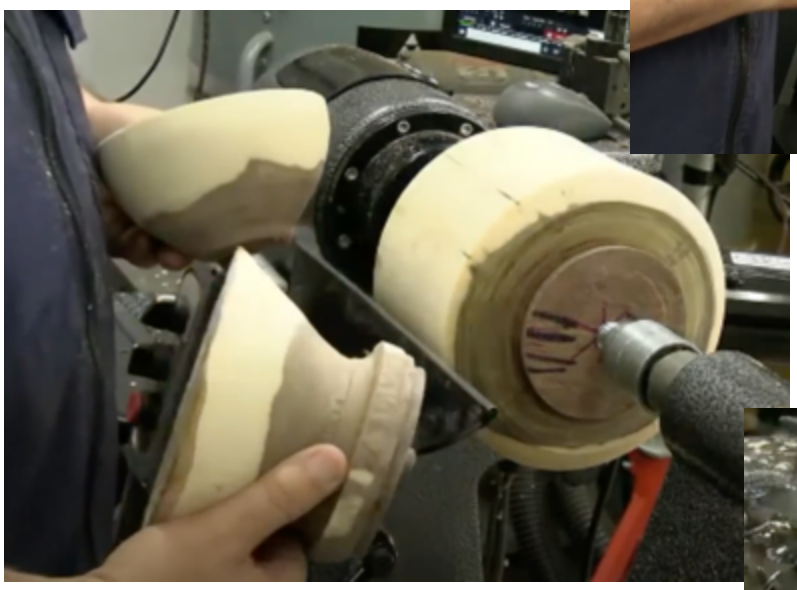
Cutting the other way results in dust, tear out and is much harder on the turner.

Now it's time to make a tenon. Normally, end grain hollowing is from the inside out. However, that will place a great deal of force on the outside of the bowl. Therefore, we need a large tenon. Steve uses a Megajaws chuck and wants the tenon sides to exactly match the chuck jaw angle.

The scraper he uses matches the inside of the jaws. He suggests making a template from cardboard and then grind a spare scraper to that shape.

Steve does not use the chuck in expansion mode, preferring compression mode instead. In expansion mode, the hollow often defines the base of the piece. In compression mode, the foot can be removed.

This image on the right shows the future orientation of the bowl. Below, we see how Steve will go from the very large tenon to the final, proportionally attractive one.



"Spindle turning" with the bowl gouge (downhill). Rubbing the bevel and cutting at about one o'clock.

Next, he shows cutting with the spindle gouge. Too much chatter and hanging too far over the tool rest.

Remove some material to provide a visual shape for later hollowing.

End grain hollowing is difficult. Begin by drilling with a forstner bit to set depth.

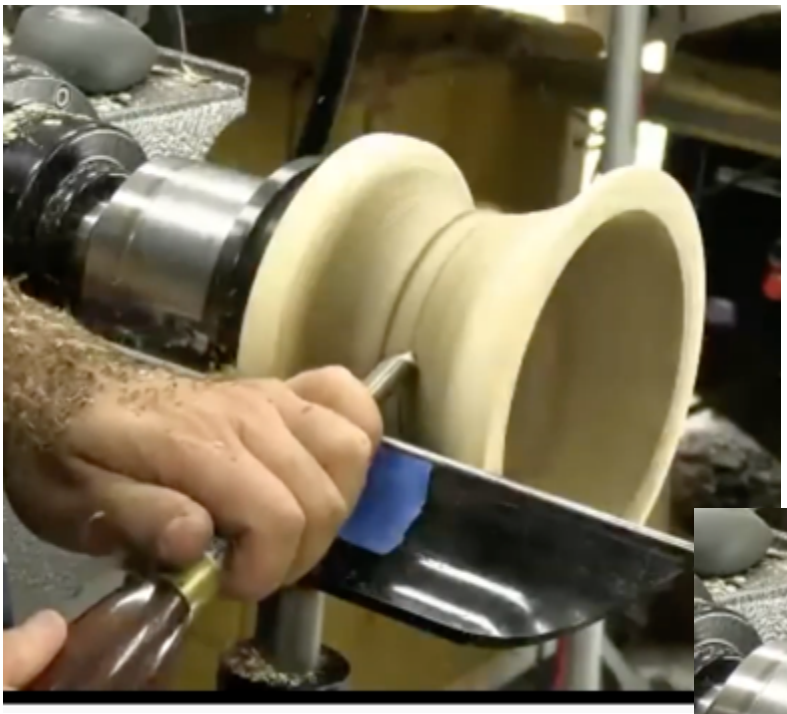
Begin hollowing from inside out with spindle gouge. This equates to working “downhill”, just like using a scraper. A bowl gouge in scraping mode is an option - carefully! But NEVER a roughing gouge

A scraper can also work, if it’s sharp.

A bowl gouge (50 degree) - going straight into end grain - produces dust, but quickly. It can be used in scraping mode – from center to out, but it produces chatter.

Another choice is a 70 degree bowl gouge which produces a finer cut. (Flute up)

Returning to the bowl gouge to refine the outside:



Check depth. Make mark on outside of bowl. Adjust base accordingly. Switch to spindle gouge. Adjust tool rest as needed.

Take one pass from outside to inside to clean up using a small spindle gouge.

Part it off using a thick parting tool and fine saw.

Finish using a jamb chuck.

Thank you, Steve