

SEPTEMBER 2015 DEMONSTRATION

HOLLOWING WITH MIKE GRIDLEY

Mike Gridley provided the CNY Woodturners with a concise demonstration on hollowing at the September 2015 club meeting. Mike started by telling the story of how he was approached by **Rod Castle** about doing a demonstration this year but did not have a topic in mind. When discussing potential topics, Mike mentioned that having never done one he would love to learn to do hollow vessels. Rod had heard all he needed to hear at that point and the demonstration topic was set.



Mike noted there are some challenges to overcome when hollowing, the first being leverage. As you are hollowing you are moving the tool deeper into the vessel which brings the tool tip farther away from the tool rest. To illustrate the difference in leverage, Mike mentioned when your tool tip is ½ inch from the tool rest you have a 36:1 leverage ratio but when your tool tip is 3 inches from the tool rest your leverage is reduced down to a 6:1 ratio. The second challenge when hollowing is simply the fact that you cannot see what it is you are turning. This can make it difficult to know how close your tool is to the outer wall as well as know if you have high or low spots on the interior of the vessel.

Mike showed a number of different hollowing tools, all of which have one thing in common – the fact that the cutting edge is a scraper. Mike prefers a negative rake edge to reduce the aggressiveness of the cutters. The primary tools used for this hollowing demonstration were the Mini Monster Hollowing System sold by Monster Lathe Tools (www.monster-lathe-tools.com), an Easy Wood Hook Style Hollower (www.easywoodtools.com), and a full size Easy Finisher with a round carbide cutter.

To begin, Mike turns a tenon on the bottom of his work piece and mounts the piece in a chuck, making sure that the piece is held securely. He then rounds out the piece and places a pencil line where he wishes to start a foot.

Mike then drills a ½ inch hole from the tip of the piece to the depth of the top of the foot. This hole will be the starting point for the hollowing to come later.



Mike shapes the outside of the vessel primarily using a 3/8 bowl gouge, using both a normal push cut as well as turning the gouge on its edge to shear scrape. Mike mentioned to be careful when turning the bottom of a cove because a gouge with high wings can catch on the opposite slope of the cove. To avoid this it is best to use a tool with swept back wings, such as a detail gouge.



It was now time to hollow. Mike stated at this point he prefers to hollow dry wood as he has found that when working with green wood the shavings clog up in the vessel more than dry shavings do. Shavings in the vessel interfere with the scraper bevel making good contact with the wood. To overcome the challenge of not being able to see what is being cut while hollowing the Mini Monster Hollowing System (and other similar systems) has a laser



that is suspended outside the work piece to show the turner where their cutter is located inside the hollow

Hollowing, continued

vessel. Mike sets the laser to point to the very edge of his cutter at the 10 o'clock position (the leading edge of the tool). The height of the cutter is set to contact the wood slightly above the center line, or the *equator*. Setting the cutter at the center line would provide a more efficient cut however you run the risk of having the cutter being pulled below the center line and causing a catch.



Finishing – Sanding of the exterior of the vessel could be done either before or after hollowing. Interior sanding should be limited to just the opening of the vessel. It is not necessary to try and sand the rest of the interior. After sanding apply your favorite finish.



Using the Mini Monster, Mike began hollowing the top 1/3 to 1/2 of the vessel. While hollowing you have to pay attention to where your cutter is working and you need to make sure not to rub the shaft of the tool on the rim of the vessel as that can crack or otherwise damage the rim. Mike then used the hook style hollower to clean up the space just inside the vessel where the straight cutter could not reach. After cleaning up this, Mike rough hollowed the bottom half of the interior of the vessel working down the side of the vessel toward the bottom. He used the round Easy Finisher which removes more wood faster than the small cutter on the Monster Tool, coming back to the Mini Monster to make the finishing cuts at the bottom and sides of the vessel using the laser to get uniform wall thickness.

Mike concluded the demo by using a parting tool to part the vessel from the tenon.

Following Mike's demonstration, Ed Siegel briefly showed what his October demonstration will produce in case folks wanted to use their hollowed vessel for both the October and November monthly Challenges.



Submitted by **Greg Potter**
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