

Deep Hollowing

The timing of this subject really started when David Ellsworth wrote the article for Fine Woodworking in 1987. This was followed by Frank Sudol designing a P-bar to more effectively control torque from the cutting tip. Then came many variations on this theme.

Some regions of the country favored Y bars to control torque. These are gradually passing from popularity. Another good design was from Frank Nichols, using a square bar with a large pivot and support frame. In this case moving the end of the bar one inch translated into .1 inch at the cutting tip.

Articulated arms gained popularity with Stan Townsend and the Elbotool followed by many variations as designers improved the principle. The popularity of the tool was driven by the perception of a shorter learning curve and faster set up. Perhaps the best of the designs that followed was the Vicmark which was much heavier and did not use the tailstock for support.

Cutting tools came from John Jordan, Trent Bosh, and Sorby to fit available P-Bars and Arm Braces. Dennis Stewart made the Arm Brace which is still favored by many turners today as this was a better way to hollow than the Ellsworth straight bars. Both John Jordan and Larry Hasiak, to name two, still use this method today.

Stan Townsend introduced the use of Hunter carbide cutters which have evolved as the preferred cutting tip for rapid controlled wood removal.

The History lesson ends and we get to Hollowing.

Blank preparation is step one and involves visualizing the grain pattern inside the piece of wood and proceeds to shaping for the most artistic presentation.

Note that the preferred use of a Face plate rather than a chuck simply because the hold is better. Beginners have more catches so should use a face plate.

Today's demonstration uses a Simon Hope articulated hollowing system and a 6mm carbide cutting tip. In use today is a laser pointer to help gauge wall thickness. Many woodturners have started using a Visualizer as they are inexpensive and effective. My preference is a laser pointer although I have a visualizer as well. Michael Gibson put out a U-Tube video showing how to make one.

The demonstration is divided into different shapes and how to approach the variations.

As you begin to cut, the focus should be on making small shavings rather than large, as a catch can cause grief. Avoid creating a trough as the cutter is forced to take a larger cut. Remove ridges, and try to take cuts using half of the cutting tip. Note that the cuts become more difficult as the distance from the tool rest increases. The bottom cuts are the most difficult as boring bar flex is greatest.

John Jordan's video from long ago takes you through the steps in hollowing and are relevant today. I have one on VHS tape.

Finally, reverse chucking of the piece requires special attention depending on wall thickness and shape. I wrote the article about ten years ago in the AAW magazine to explain how. As techniques evolve I only use the smooth bar with a Morse taper and carefully shaped wooden pieces for the mouth of the vessel. A thin piece of neoprene cushions the contact, but avoid too thick cushioning, which would allow wobble.

Most of my pieces now incorporate a separate bottom accent for stability and artistic effect which sell better at a higher price and hide the screw holes from the face plate.

Sources of supply:

Hollowing systems :Vicmarc sold by Woodturners Emporium in Las Vegas 702-871-0722

Simon Hope is sold by: Franck's Woodturning 942-377-8355

Hollowing tools: John Jordan 615-941-1247 Cane Ridge, Tennessee

Sudol Pbar Sold by: Carter Products Co. now called Hollow Roller

Oneway still carries the original P-Bar but is designed around 5/8 bars which flex more