

## APRIL 2015 DEMONSTRATION

### *SPHERES WITH MIKE MALECKI*

**M**ike Malecki shared his experiences turning spheres for decoration with the club members at the April meeting. He started off by sharing how he observed others turning spheres with exacting measurements and carefully marked wood pieces. He tried that approach and then decided he preferred to use their general approach, but with more freedom to experiment and visually decide as he went what was a good size and shape at each stage of the process. He emphasized the creative process at all phases from choosing wood, to orientation of the grain, to size of sphere, and to final decorative markings like wood burning and finishes.

He used just three tools during his demonstration: a bowl gouge, a roughing gouge, and a spindle gouge. He turned at high speeds (above 1,200 rpm) to reduce the tear out on the pine and hardwood pieces he used in the demo.



Mike's first step was to make two concave holders for sphere-making using pieces of pine 2" by 4". He had cut the 2" by pine into 3" circles. Each circle was placed between centers and trued up to round using a bowl gouge and then a tenon was cut on one side to fit in a scroll chuck. He did that to both pieces and then put the tenon from the first piece in a chuck without using a tailstock. He turned a concave surface on the side away from the chuck and made the concave surface slightly more in diameter than the sphere diameter planned (about 4" in the demo). He completed that on both pieces and they were left unsanded just as they came off the lathe.

His second step was to take a piece of hardwood firewood that was about 5" in diameter and 10" long and put it between centers on the lathe. Using a rough gouge and bowl gouge he turned the wood into a cylinder about 4" in diameter. He marked the middle of the cylinder and 2" marks on each side to help him visualize the 4" sphere he planned to make. Using a bowl gouge and spindle gouge he began to shape the sphere. He removed extra wood on the outer ends of the cylinder to give him better access to shape the sphere toward the center of the piece. He left tenons about 1" long and 1/2" thick on each side of the sphere to keep it attached to the end pieces. He then began to carefully part those tenons down about 1/2" away from the sphere. When the tenons were thin (but before they were parted through), he removed it from the lathe and finished cutting them off with a handsaw.



April 2015 Demonstration, continued



The third step was to put one of the cup holders into a chuck on the drive side of the lathe. Then he held the second cup centered on the tailstock with the sphere between the cups and the tenon stubs facing 90 degrees to the bed of the lathe. The tailstock was slowly brought up to hold the sphere firmly and the stability of the arrangement was carefully tested before turning the lathe on. The sphere must be held securely and Mike noted it may help to add double stick tape or foam sanding pads inside the cups to increase holding power. Slowly he brought the lathe up to cutting speed to ensure that the arrangement was stable.

His cuts were very light with a bowl gouge to remove the two tenon stubs and finish rounding the sphere by visually observing the sphere. He remarked that he watched for any shadows around the sphere that would suggest it was not round while it rotated at high speed. He kept loosening and repositioning the sphere as he worked at refining the shape.



The final step was sanding the sphere by repositioning, as needed, to sand all areas on the sphere at low lathe speeds. Decorations were added when the sphere was finished. Mike used a pointed tool to cut a small groove in the sphere and then by holding a wire in place to create friction and he burned the wood in the small groove to make a black line around the sphere. He repositioned the sphere in the cups several times as he repeated adding the groove and wire burning. Mike again emphasized the creative opportunities to decorate the sphere with texture, color, stains, or whatever artistic approach appealed to the turner.

During the Saturday workshop that followed the April meeting, about 12 members came by to try their hand at making a sphere, offer advice, or heckle their fellow woodturners. A few spheres were successfully completed and all learned a lot about how to safely hold the sphere in the two cups.



Submitted by **Chad Dawson**  
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