

Frank Penta Demonstrates for CMW
February 19, 2011
By Bob Gunther
Photographs by Tina Collison

Overview:

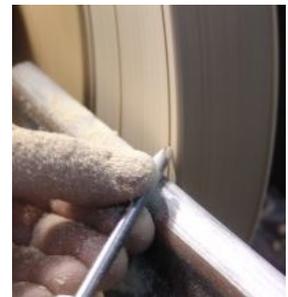
Frank Penta comes to our club from Chapel Hill, NC where he has his home and his recently completed turning shop and studio in which he hosts other woodturners on a weekly basis. He has served as President of the Woodturners Guild of North Carolina. Frank is an active demonstrator and has demonstrated for SWAT, Southern States, Tennessee, the NC Woodturning Symposium, and many chapters of the AAW. He has taught at the John C. Campbell Folk School and the Appalachian Center for Crafts. He is a prolific woodturner and has created many unique pieces.



Morning Session:

Frank began his demo with a discussion of the woods that he uses for his large platters. He uses only dry wood because it does not move during or after turning and it can be colored, carved, textured, and painted as soon as the turning process is complete.

The first project Frank demonstrated was a platter with a multi-axis base. He used a 17-inch diameter eight-quarter piece of ambrosia maple. He marked the center and drew a 2" diameter circle around it. Then he divided the circumference of the circle into thirds. This gave axes 1, 2, and 3. Next he drilled holes for the screw chuck in the true center and at the centers for axes 1, 2, and 3. First, he placed the piece on the chuck in



the true center hole and trued up the edge. The base of the platter was on the tailstock side. Frank then turned the headstock side (upper surface) of the platter. He did a facing cut first. This cut went about halfway to the center. He used a traditional grind gouge to complete the rim area. Then he turned a bead on the rim of the platter. A second bead marked the location of the inner edge of the rim (about 2 - 2 1/2"). A pyramid or point tool formed the beads. Then Frank used a skew to "pop" the bead, making it

more prominent. Then he textured rim area using a traditional texturing tool. This completed the rim area on the top surface of the platter. Frank does it this way to keep as much wood on the piece as possible for support.

Next Frank turned his focus to the base or tailstock side. He drew a 9" diameter circle with the center being the true center of the piece. From this center, he drew 2 1/8" and 1 1/4" circles. The 3/8" area between these two circles was cut away using a planer blade parting tool and 1/4" parting tool to a depth of 3/8." This gives a groove



for the expansion chuck.



Frank removed the piece from the chuck and placed it on the axis #1 off-center location. He found the new center of the piece by bringing up the tailstock cone. He scribed two circles using this center ($2\frac{1}{4}$ " and $3\frac{1}{4}$ "). As before, he turned away the area between these two circles down to $3/8$ ". This depth needs to be exactly the same as the previous groove.

Again, Frank removed the piece from the screw chuck and placed it on the #2 off-center axis. He brought up the tailstock and marked the center. He drew the same diameter circles as for axis #1 and cut away another groove. He used the same process

for axis #3. (Note: It is important that the platter blank be uniform in thickness. If it is not, it is almost impossible to cut all the grooves to the same depth.) This completed the multi-axis part of the turning.

He then placed the piece back on the true center and brought up the tailstock. He removed wood from the base from the 9" diameter circle to the outer edge and rolled the edge to about a 0° round. Frank formed an ogee shape near the outer round edge and a small bead formed using the pyramid tool. Then he used a traditional gouge to give the area a finishing cut.



He then removed wood from all surfaces of the multi-axis base so that the platter rested only on the 9" circular ring. The center circle was also slightly turned away to give some relief. At this point design opportunities abound. The platter is really a palette. Sanding would now be completed. After sanding the outer areas of the 9" base rim, Frank cleaned it up using a spindle gouge. He turned a wave formation into three of the

prominent portions of the base and formed a bead on the inner edge of the 9" base with the pyramid tool and the skew. He also formed other beads around the smaller central area. This completed the morning demonstration.



Afternoon Session:

Before continuing with the multi-axis, Frank gave a brief demonstration of making a three-footed platter using a power carver to remove the wood between the leg areas.



Back to the platter: At this point Frank usually sands the base of the platter and then uses the pyramid tool to delineate an area outside the 9" base ring. He usually textures this area. To further emphasize the palette quality of the platter, Frank destroyed some of the previously turned surface on the base. He corrected this using the pyramid tool, parting tool, and texturing tool. Frank did this to show that

one cannot ruin the platter by making a mistake. One simply alters its design.

Then he took the platter piece off the screw chuck and reversed it on the expansion jaws. Frank hollowed the top surface of the platter from the inner rim bead to the center. He used calipers to determine the thickness as the hollowing progressed. Frank shoots for about a $\frac{1}{4}$ " platter thickness. He turned a bead toward the center of the platter and textured the area in the center of the circle formed by the bead. Frank finishes his pieces with a mixture of 1/3 pure tung oil, 1/3 gloss polyurethane and 1/3 mineral spirits. He wipes this on and off using paper towels - allowing it to dry overnight - sanding with 600-grit paper and recoating. It is dried and then buffed with Tripoli and then waxed. This completed the platter.

Frank next turned a multi-axis birdhouse. He placed a Talon chuck with #2 jaws on



the headstock and placed a cylinder in the jaws. He numbered the wood in respect to the jaws (1 - 4). First, he turned the base of the birdhouse on the main axis. He brought up the tailstock. Using a roughing gouge Frank shaped the cylinder. He turned a 1" tenon on the tailstock end. He also turned a pedestal portion for the house to sit on. Frank enhanced the design by using a burnishing wire to scribe a black line on the top of the pedestal area. Then Frank tipped the

piece in the jaws to establish the 1st off-center axis. He turned another



section. Each segment needs to be sanded as turning progresses.

When using any of the four axes all the jaws need to be touching the wood for the chuck to hold. Then

he returned the piece to its true axis and parted it off. This completed the multi-axis base. Frank turned the top of the birdhouse using an off-center axis first and finished up using the true center.



This completed a very fast moving and informative demonstration. A DVD will be available in the club library in March 2011.