

Turning a Three Pointed Bowl



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Introduction

I like many turners have turned a number of bowls over the years and have looked for ways to enhance my bowls. I had the opportunity to see Mark St. Leger demonstrate his small rocking boxes which served as an inspiration for turning a three pointed bowl.

The three pointed bowls are fun to turn and can be modified as Ikebana's and candleholder's as well. I have found that the bowls provide a great pallet for unleashing your creative designs. I typically make these bowls from 4x4 cubes of kiln dried lumber.

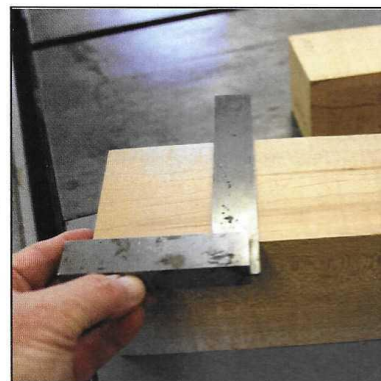
This instructional handout will focus on the basics of turning a three pointed bowl from 4x4 stock. Once you are comfortable with the basics, you can easily move onto other variations. I continue to find new enhancements and variations in design.



Three Pointed Bowl

Wood Selection

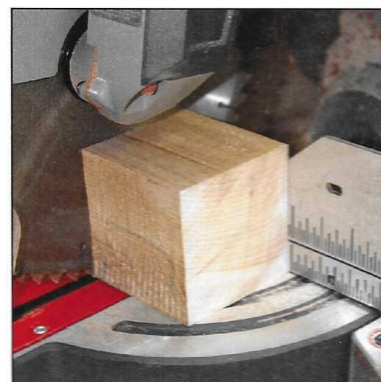
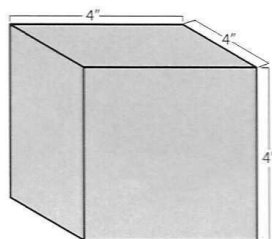
You can use a variety of wood for turning the three pointed bowls, including maple, walnut, sapele and cherry. The wood I use is a perfect 4x4 cube. The dimensions need to form a perfect cube to ensure that the three points are aligned in the finished product. I use kiln dried wood with no cracks. I prefer to use hard woods with tight grain but you can use softer wood if you prefer.



Wood selection

Wood Preparation

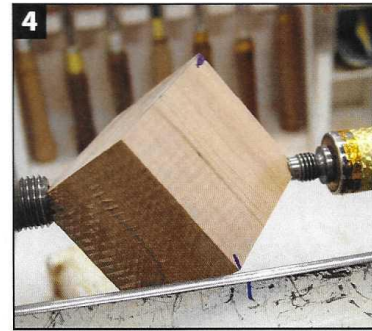
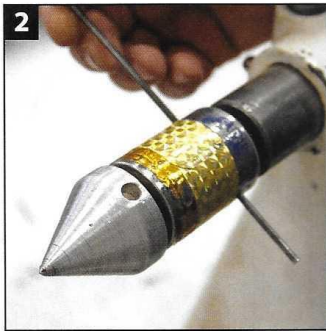
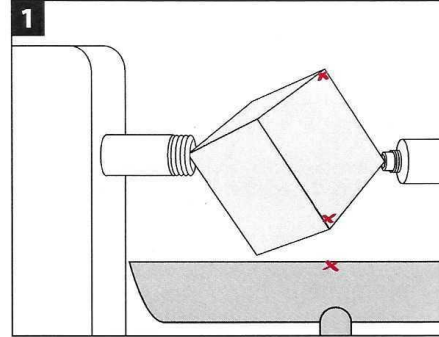
I recommend cutting perfect cubes between 3 1/2" - 4". You can use both smaller and larger cubes if you prefer but note that adjustments will need to be made in selection of chuck jaws and mounting. Preparation of a perfect cube is very important to ensure that the points of your finished bowl are uniform.



Wood preparation

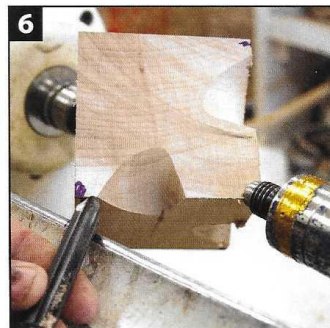
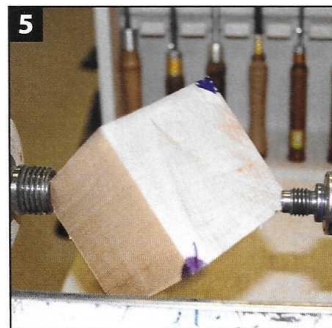
Mounting the Blank:

1. Place one corner of the cube directly into the headstock spindle as shown in figure # 1. Remove cone and pin from live center as shown in pictures 2 & 3.
2. Place the opposite corner of the cube into a live center with the center pin removed as shown in figure 1.
3. Balance the cube between center and make a mark (I use a Sharpie) on the tool rest to ensure the three points of cube that will form the points of your bowl are aligned. If properly aligned and balanced the three points of the cube that will form the points on the bowl will line up with the mark as you rotate the cube by hand as shown in picture 4.
4. Double check to make sure the cube is securely mounted between center



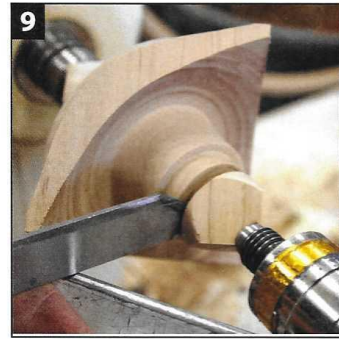
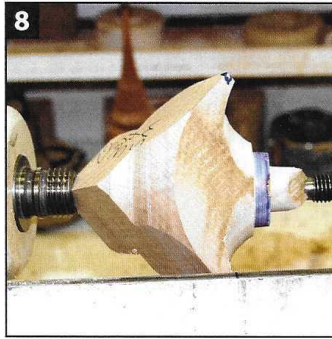
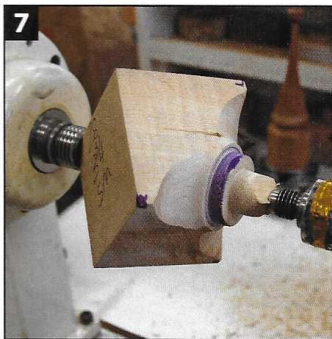
Turning a Tenon for the Bowl:

1. I prefer to use a 1/2" Doug Thompson U-shaped bowl gouge for turning the bowl. Note that other tool manufacturer's measure tools differently; a comparable tool for other manufacturers is often a 3/8" bowl gouge.
2. Use a marker to color the three points of the cube that match with the mark on the tool rest. This will help you avoid knocking off the three points of your bowl. (picture 5)
3. Take light concave cuts to begin shaping the inside of your bowl and to create a place for the first tenon. (picture 6)



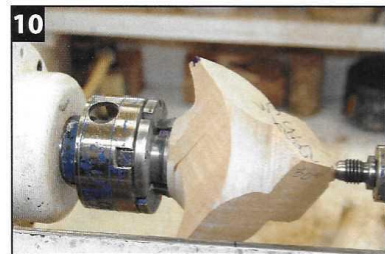
Turning a Tenon for the Bowl: (continued)

4. Once you have turned the rough shape for the inside of the bowl, create a 1 3/4" tenon on the same side. The rough shape is basically a way to remove part of the cube to make it easier to create the tenon. Make the tenon at least 1 3/4" in diameter if using a Talon chuck with #2 jaws. (picture 7)
5. I prefer to rough shape the bottom /outside of the bowl (convex cuts) while the cube is still between center and lined up with the mark on the tool rest. Rough shaping the outside of the bowl at this time helps to ensure I avoid damaging the three points. (picture 8)
6. Once the bottom/outside of the bowl is rough shaped I use a small parting tool to part off the excess (odd shaped portion) of the tenon. To ensure the best possible mounting the tenon should be parted off a length of 3/8" so that the jaws of the chuck are flush with the shoulder of the tenon.



Turning the Bottom/Outside of the Bowl:

1. Chuck the bowl up on the tenon you just created on the inside of the bowl with a Talon chuck (#2 jaws) and bring the tail stock up for additional support. (picture 10)
2. Now you are ready to turn the bottom/outside of your bowl. I recommend using a push cut for this as you will get a cleaner cut and tear less wood fibers than if you use a pull cut. Continue to shape the bottom of the bowl until all flat spots near the three points have been removed. Take special care when starting cuts near the three points. I recommend letting the bevel rub against the wood and slowly moving the tool backwards to find the edge and then introducing the cutting edge. This approach will help prevent catches and possible damage to the three points. Note that if a point gets damaged, you can round off the other two points with light sanding so they will match. (picture 11)
3. Once you have removed all flat spots part off the bottom of the bowl (excess part of cube) (picture 12)



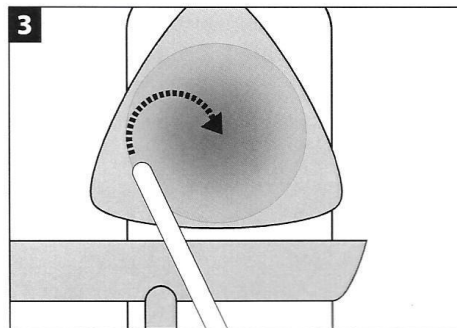
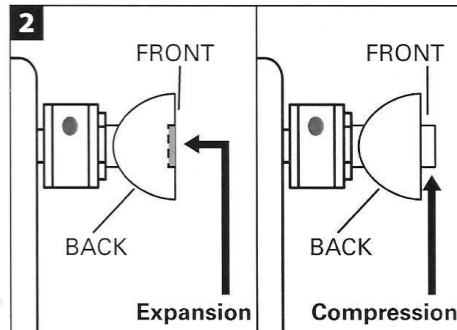
Turning the Bottom/Outside of the Bowl: continued

4. I prefer to turn a recess in the bottom of the bowl (2 1/8" minimum diameter with a depth of 3/16") with the outside diameter at least 1/2" larger than the recess diameter to avoid breaking the recess when expansion chucking. Using a diameter of at least 2 1/8" allows you to use expansion chucking for turning the inside of the bowl with room for calipers to measure depth. I prefer the recess/expansion chucking method because it allows me to finish the bottom completely without worrying about marks on the foot which would require touch up after turning the inside of the bowl. (picture 13)
5. Completely finish the bottom of the bowl by sanding, texturing, etc. sanding the bottom of the bowl I use a 3" disk sander at slow speed on the lathe and sand to 600 grit for a smooth finish. Once the bottom of the bowl is finished you are ready to reverse the bowl and expansion chuck it so you can turn the inside. (picture 14 & 15)



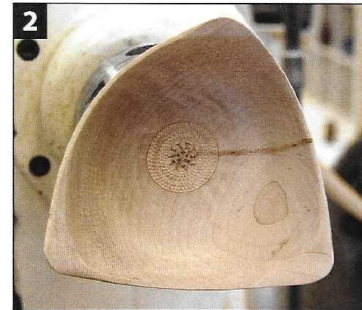
Turning the Inside of the Bowl:

1. Expansion chuck the recess you created on the bottom/ outside of the bowl (use tailstock for added safety). You are now ready to turn the inside of the bowl. (figure 2)
2. I use a 3/8" Doug Thompson bowl gouge for turning the inside of the bowl. Pay special attention to the three points as you turn to inside to avoid damaging the tips. Remove the tailstock to make the final cuts on the inside of the bowl. (picture 16)
3. Your final cuts should ride the rainbow from the tips up and back down to the center. This traditional bowl cut will ensure a nice finished shape for your bowl. (figure 3)



Turning the Inside of the Bowl: continued

2. Sand (3" disk) and texture the inside of the bowl while on the lathe. If you prefer to have softer rounded edges versus the three points now is the time to sand them, I recommend hand sanding the edges to avoid damage.



Finishing the Bowl:

Remove bowl from lathe and apply finish of your choice. I apply a mixture of 1/3 pure Tung oil, 1/3 polyurethane and 1/3 mineral spirits to the bowl. I let it dry overnight and then lightly sand with 600 grit sandpaper. The next day, I apply a second coat and let it dry overnight. I finish by buffing the bowl and applying a coat of wax.

Bowl Gallery



Bowl #1-Top



Bowl #2-Top



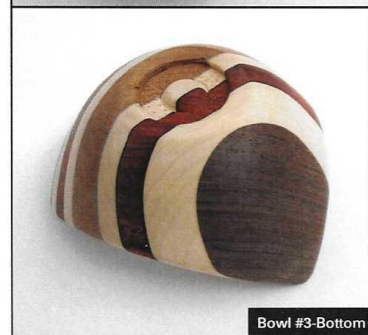
Bowl #3-Top



Bowl #1-Bottom



Bowl #2-Bottom



Bowl #3-Bottom