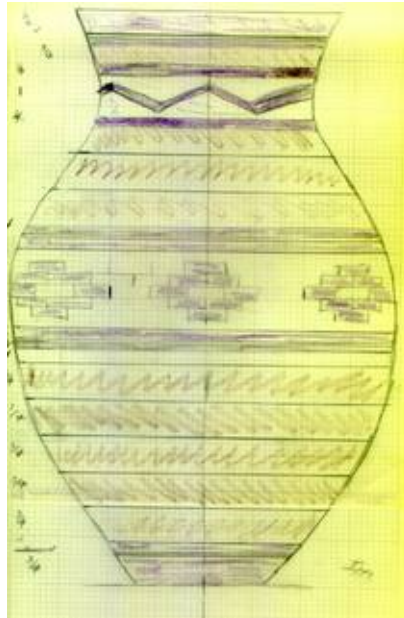


Vicki's Vase

This took a longer than I planned, but here is a description of what I go thru to make one of the segmented turnings.

The first step is to draw up a plan showing the shapes rings and details of the turning. There are cad programs for this, but I prefer to do it on graph paper.



Once the plan is done I use it to calculate the rings. That I do on a spreadsheet It gives me the Diameter, Thickness, Width, Number of segments, Length of segments and Approx. lumber for each ring.

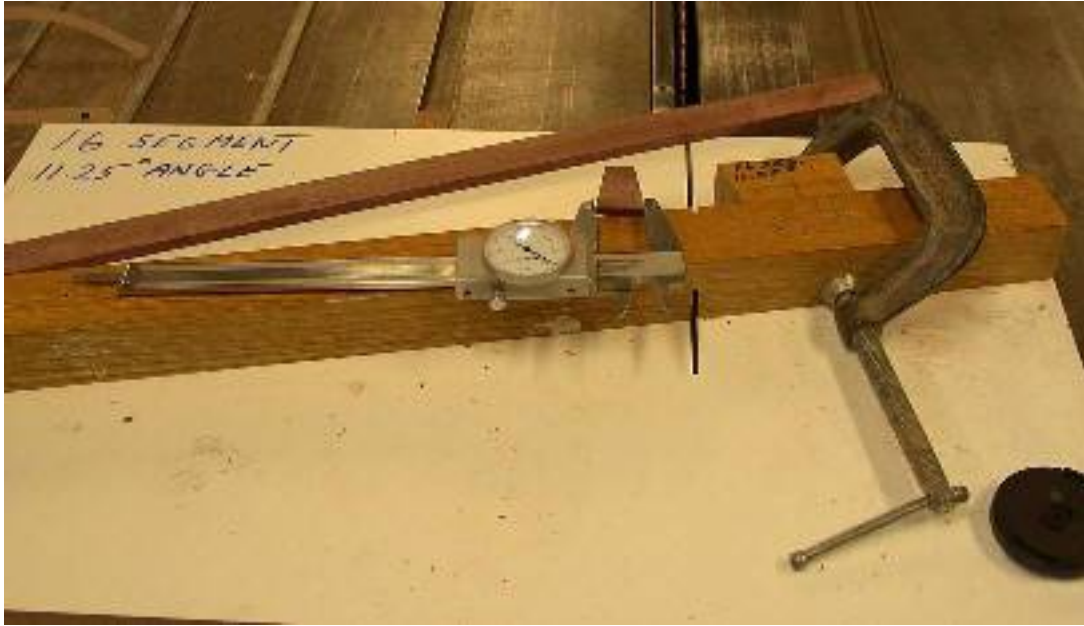
The next Step is stock selection; I usually try to select woods that will compliment each other. And highlight the detail rings. For this project I choose Walnut, Purpleheart, Zebrawood, and Maple veneer.



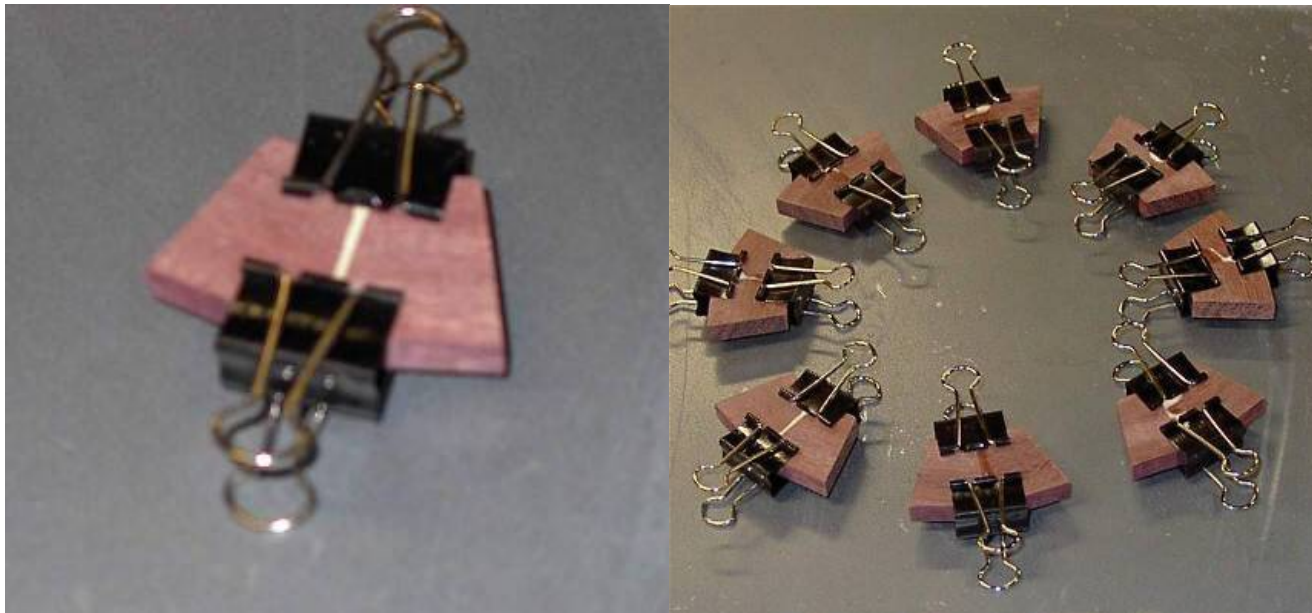
The lumber is then cut and planed into strips about 36" long. To the dimension as per the spreadsheet.



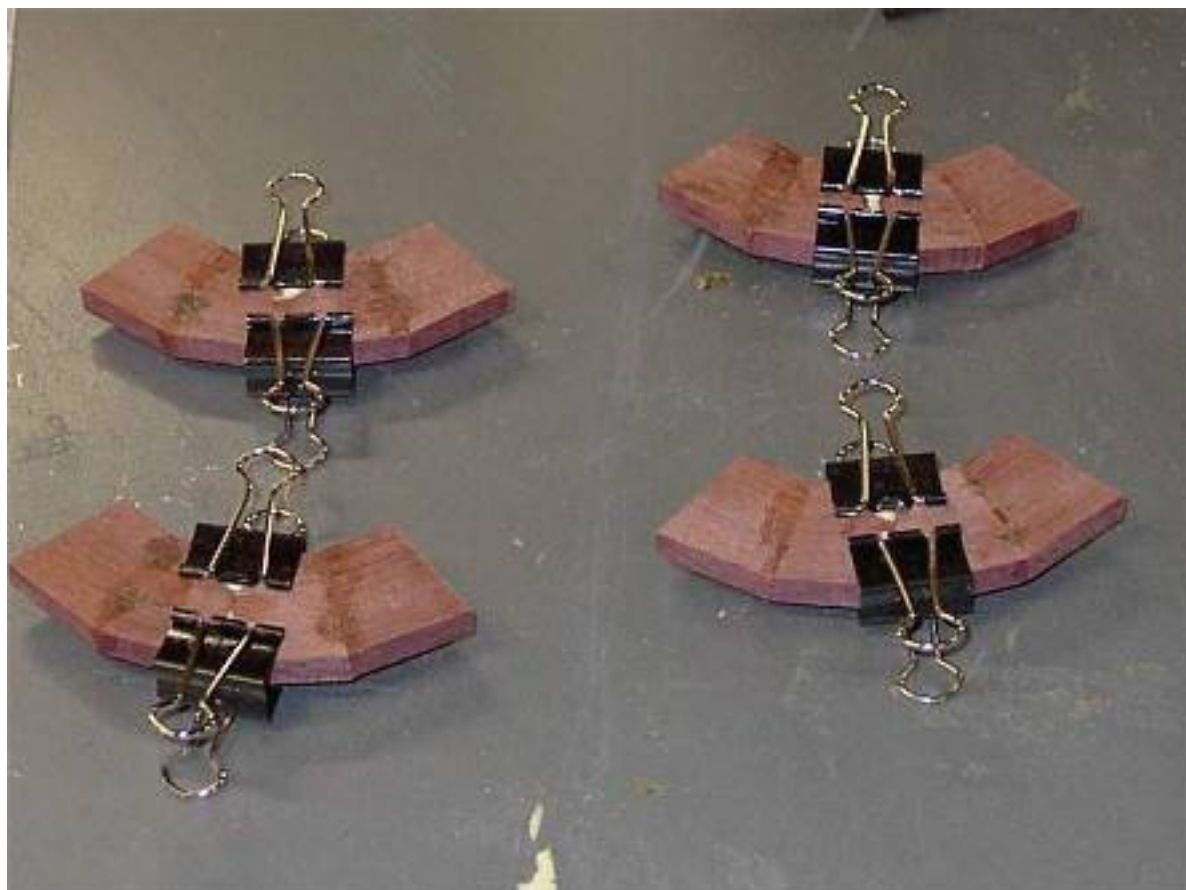
The segments are cut on the table saw. Using a sled with a fixed fence at the angle needed and a stop block. I use a vernier caliper to accurately size segment length.



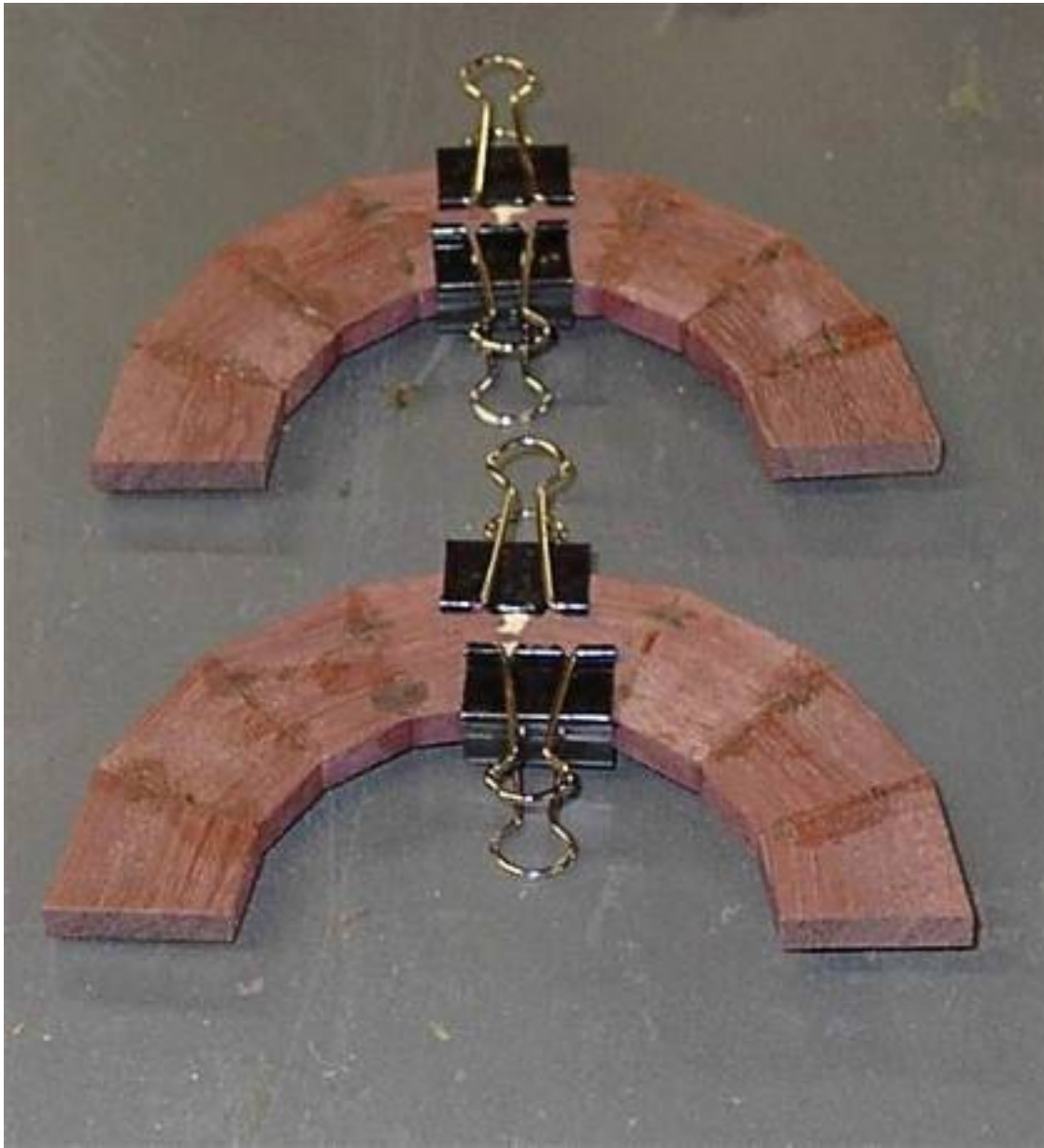
The segments are then assembled into rings the ones that are less than 3/8" thick are first put together in pairs, with binder clips as clamps.



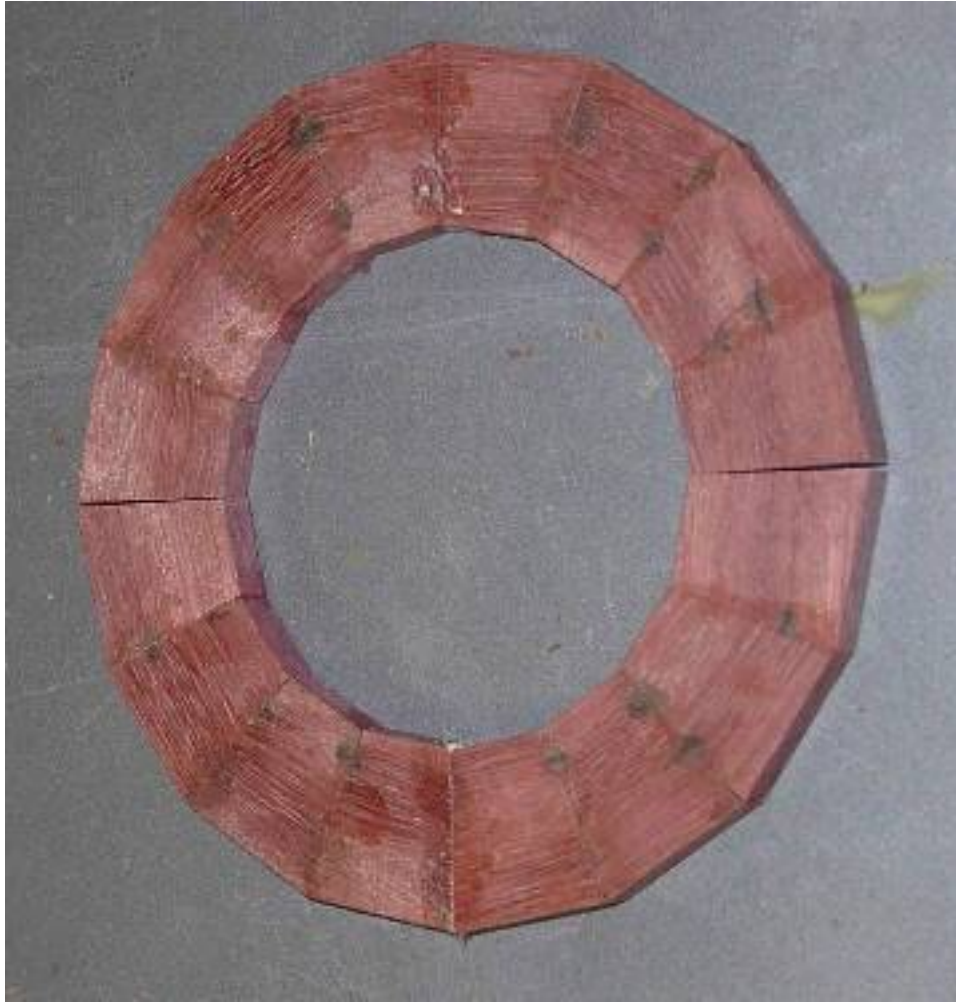
Then into quarters.



Then half circles.



This method can lead to some inaccuracy in the last joint.



This is trimmed smooth on a table saw sled, with a hold down.



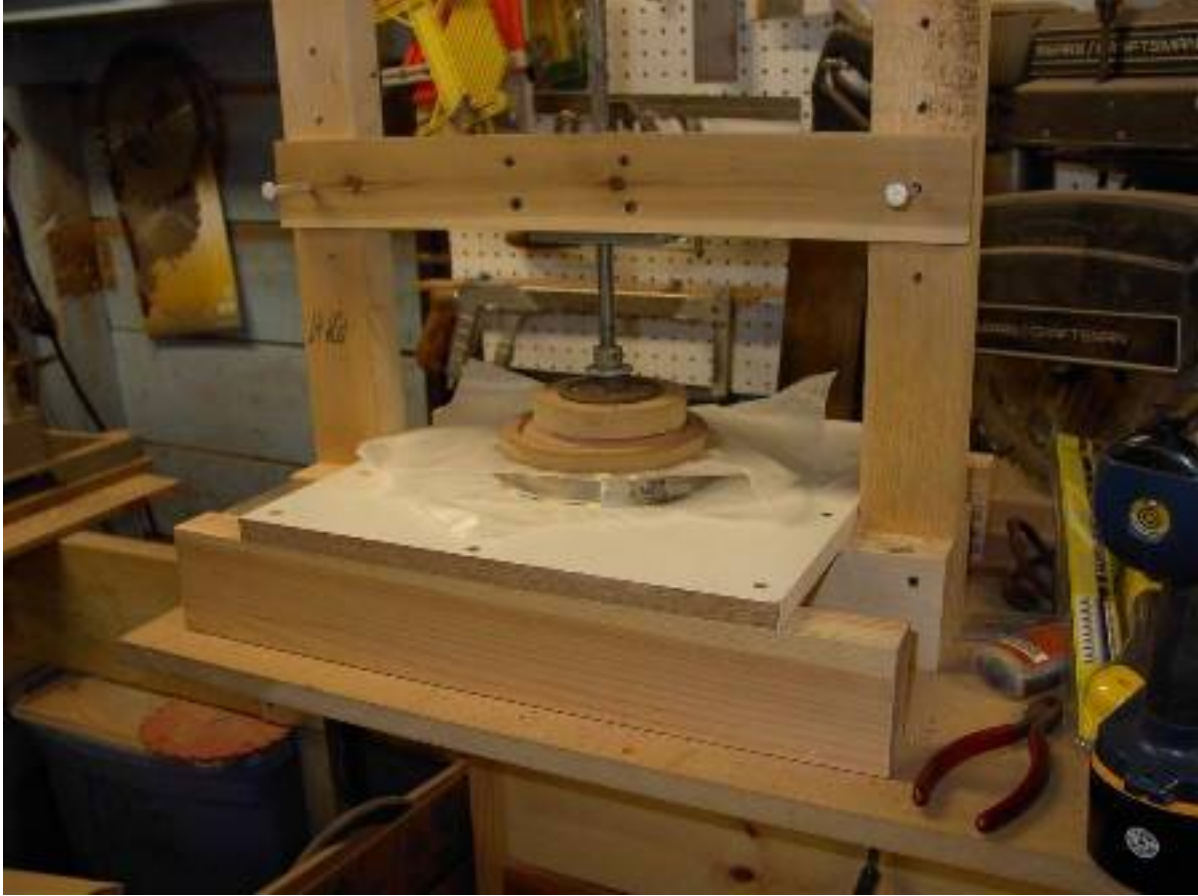
The thicker rings are a little easier, I put a strip of masking tape face up on a board and stick the segments to it.



Apply glue to all mating surfaces and spread with a putty knife.



Roll up the strip into a circle and clamp with a hose clamp.



I sandwich the rings in the press for a few seconds to flatten out any side shifts.



Once the rings are dry I mount them to a flat plate on the lathe with hot glue. Then smooth the surface with a scraper and sanding block.



The presses I use for assembly are shop built from 2 x 4's, laminate covered mdf and ½" threaded rod.



Assembly starts by putting a waste block on a face plate and gluing a solid base onto it.



I use scraps hot glued around the rings to maintain alignment.



Rings are then added one at a time, aligning to the previous one in a brick pattern for strength. They are put in the press for a min of 30 minutes.



As each layer is added it is trued on the lathe and the segment corners are knocked off to help maintain alignment with the next ring.

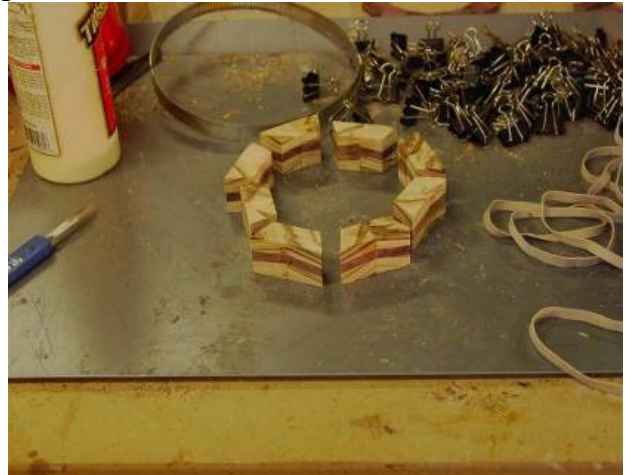


The large detail ring was an easy one on this project. Just time consuming; it contained 224 pieces in 7 rings. Layered as described before.

The upper detail ring, at the neck, was made by gluing 3 strips together



Then cutting at a 30 degree angle, and gluing into pairs.



Then trimmed and shaped on the table saw then assembled as before.

Assembled and ready for final turning I let the project sit for a couple of days to make sure that the glue is cured.



Due to its size this piece was unstable even at slow speed. I set up the steady rest at the largest point



Shaped the inside of the neck to allow a plug to be inserted and the tail stock to be used.



The outside is then finish shaped with bowl gouges and scrapers.



The steady rest is reset on the neck of the vase for stability and the inside is turned, using only scrapers. Some commercial, some home made. The final wall thickness of this one is about 3/16".

Next is sanding I use both power and hand sanding, inside and out, as needed from 100 thru 1200 grit.



I apply 3 or 4 coats of Waterlox original to the turning, one a day, and sanding lightly between coats with 2000 grit or micromesh.



The top coat is two coats of Johnson's paste wax buffed in on the lathe.



The next step is the scariest, after almost 6 weeks and 150 hours of work, parting off the piece and finishing the base. I reverse mount the turning between a jam chuck and tailstock, then

trim the base to final size.



The Vase is Finished



Some may ask is it worth the effort. Just look at the expression on my daughter in laws face seconds after she opened it.



I hope this put some insight into what is involved in building one of these and any comments or questions are welcome.