# Minnesota WoodTurners Association

A LOCAL CHAPTER OF THE AMERICAN ASSOCIATION OF WOODTURNERS

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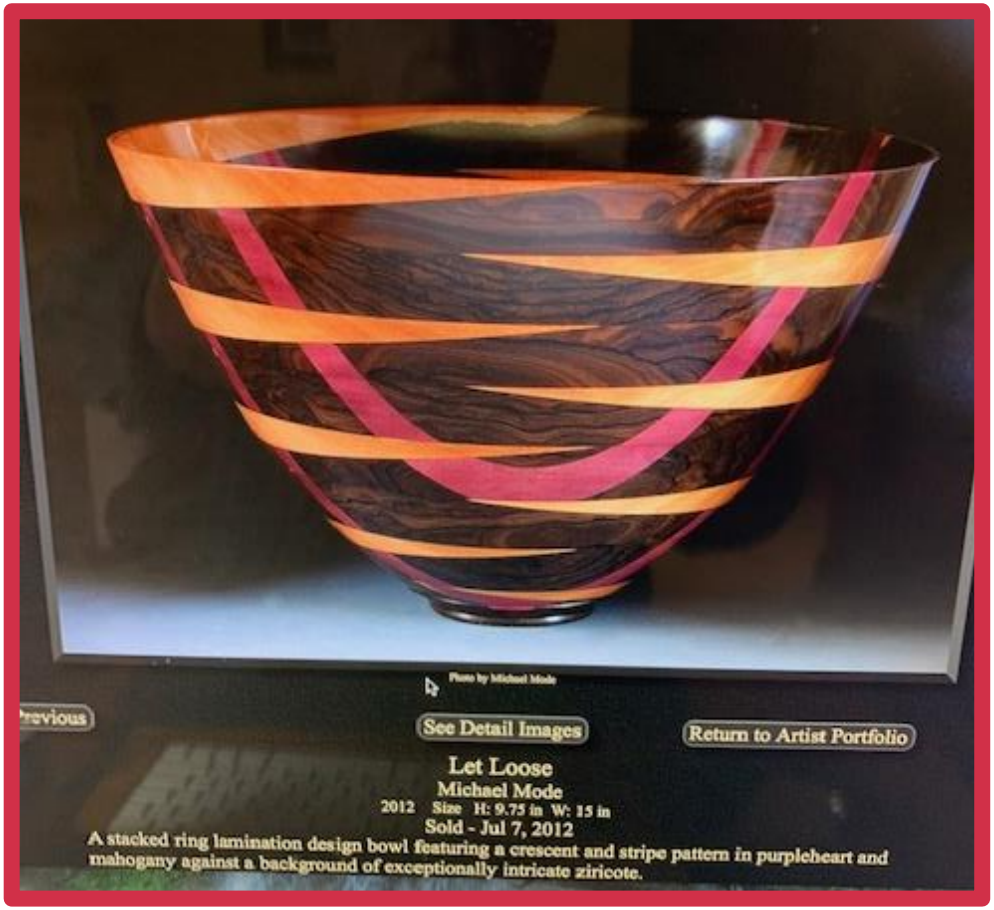
Mini Newsletter No.21

This Covid Newsletter is devoted to a Mini Class by Lee Tourtelotte based on the style of Michael Mode

Michael Mode

# Michael Mode Mini Class – Lee Tourtelotte




From the first time I saw a few pieces of Michael Mode's signature work, I really thought it was unique and very striking. I wondered if I could ever try doing it myself. His laminated bowl from a board style first caught my attention when he had a booth at the American Craft Council show in St. Paul. Last year I had an opportunity to visit Burlington, Vermont near where Michael Mode had his home & workshop. He agreed to have me stop by for a brief, crash course of his laminated bowl techniques.

Michael's website is:
https://michaelmode.com/index.html

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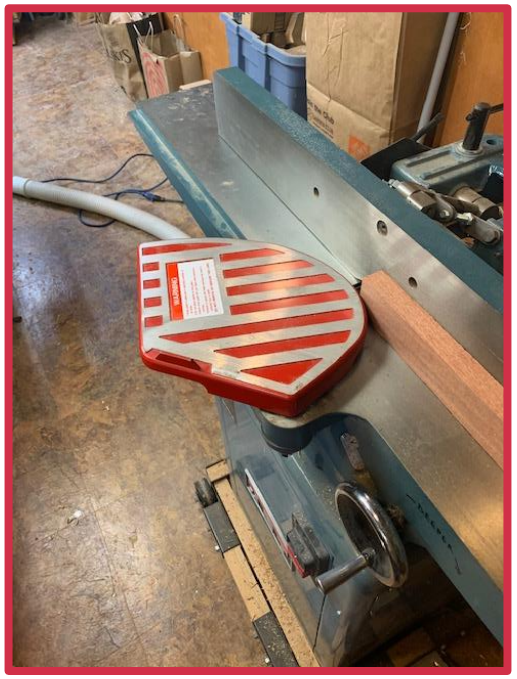

I double checked my drum sander for the largest diameter laminated board that can be sanded, which equals 1/2 of the largest possible bowl diameter, or 20”.

It is very important that all the component contrasting wood strips in the laminated board pattern be precisely machined, perfectly square and equal before glue-up. Jim Jacobs generously offered to come by and help me tune up my jointer and sharpen my portable planer blades before starting to prepare the wood strips.

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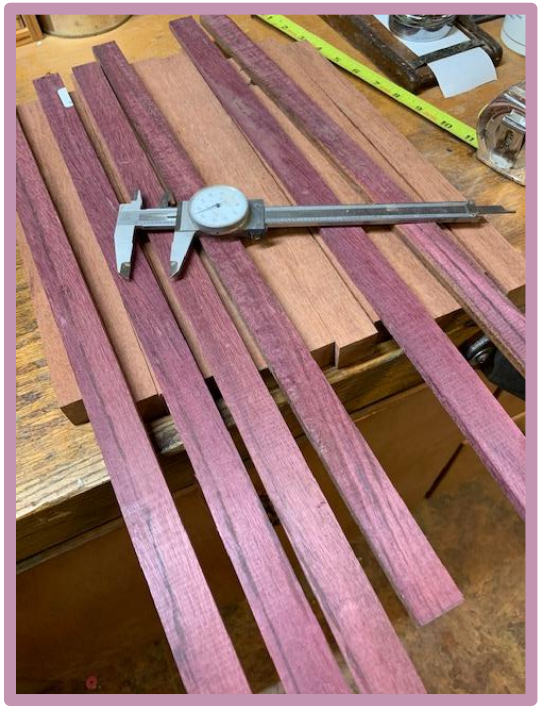
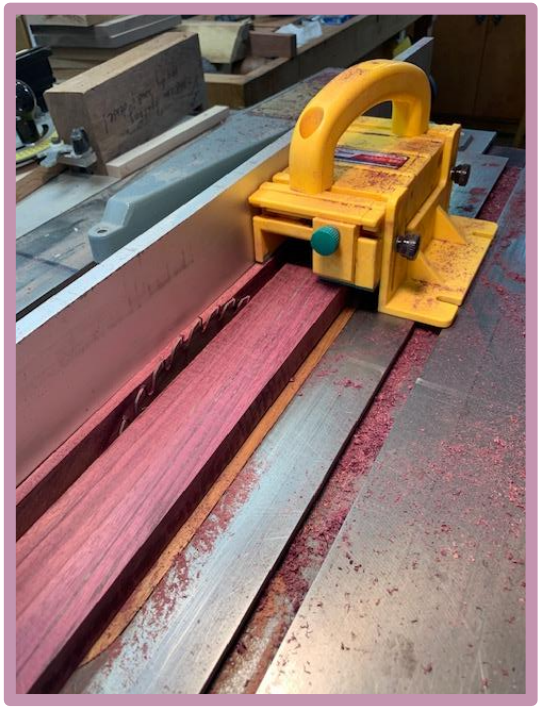
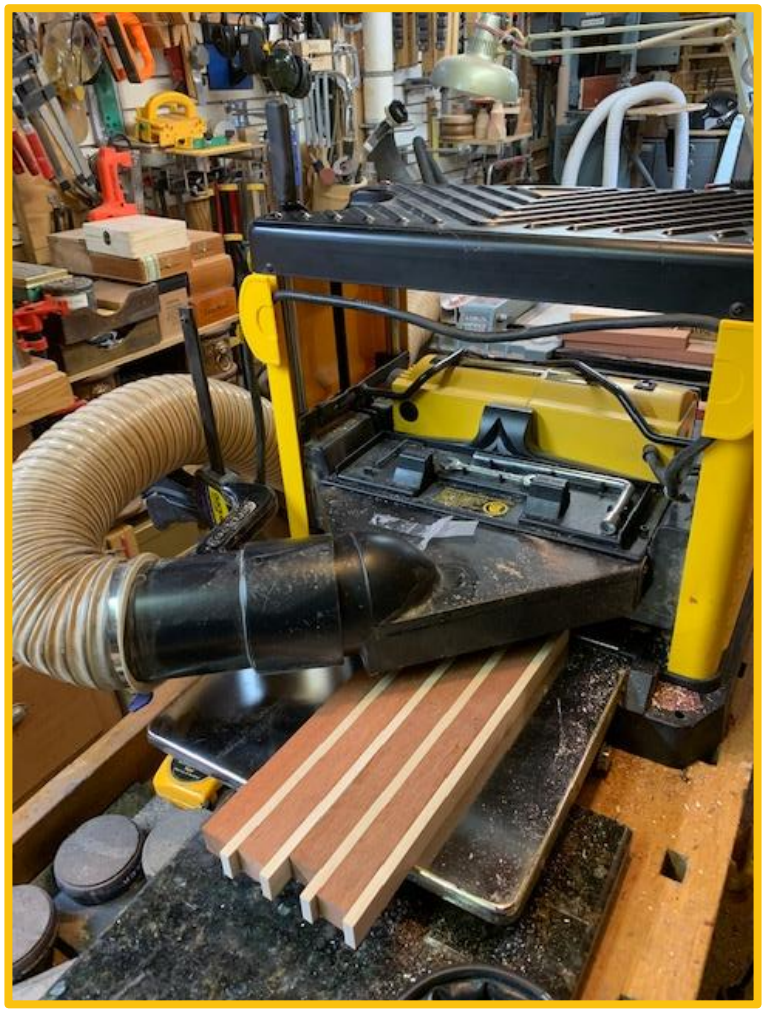




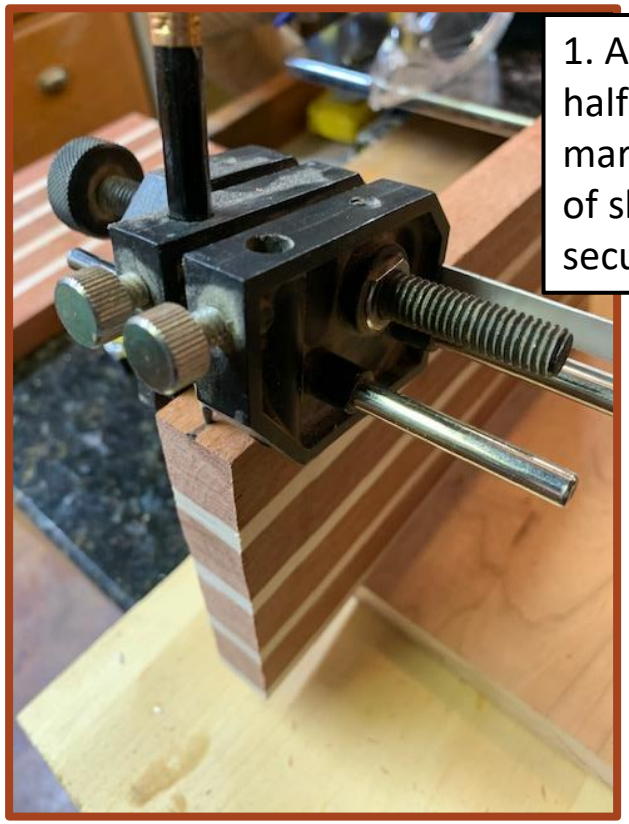
A Change of Plans - starting out, I wanted to use thin strips of purple heart with contrasting Santos mahogany and yellow heart. Unfortunately, it turned out later that I did not have quite enough purple heart on hand, and because of Covid19, I did not feel good about going out to buy more. I therefore had to make a midstream change, using maple strips in lieu of the purple heart.


I glued up both the mahogany and maple strips into two separate half boards and planed them to the same thickness



Planing the half board of mahogany and maple strips

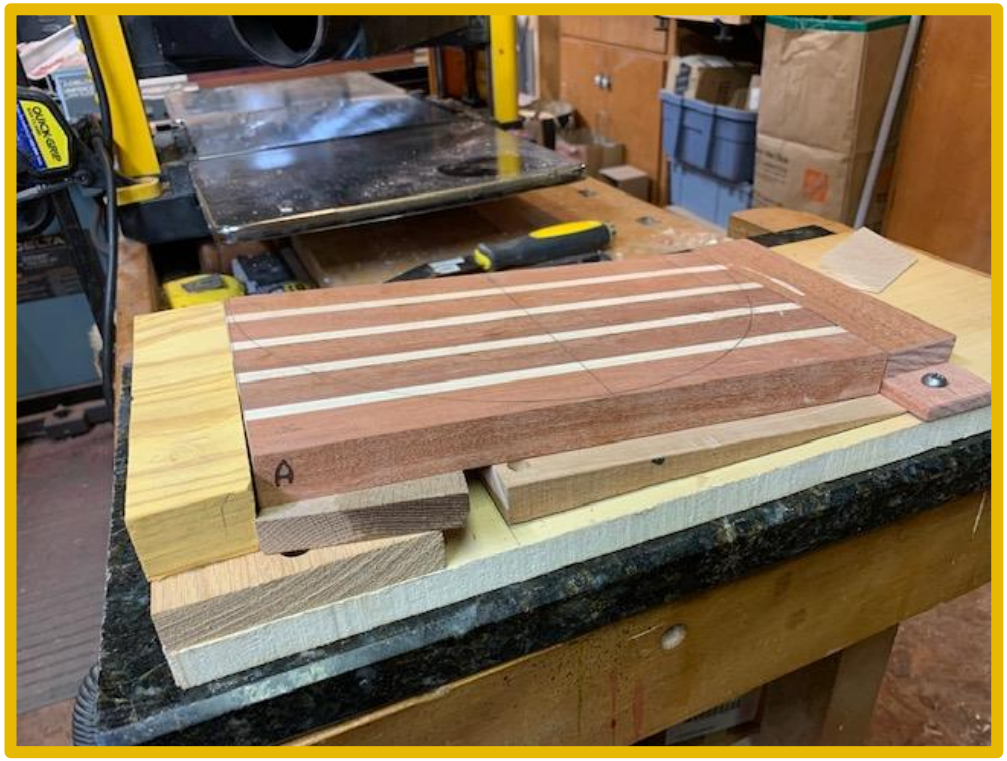
With both half boards clamped together (but not glued together), the largest possible circle is scribed from the center. Four smaller inside circles are scribed, each about 2” less in diameter, towards the center leaving the last circle about 3” in diameter, which will be the bowl’s bottom.



1. An angled wedge is marked on the ends of each half board, about 1/3 the length of the board. The marked-out wedge, with approximately 25 degrees of slope, will be removed from each half board by securing it to a basic angled home-made sled jig.

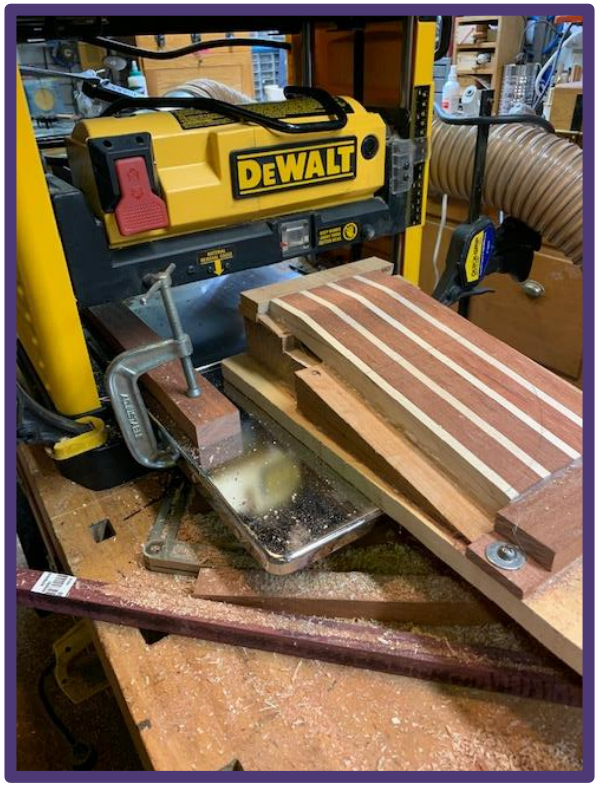
3. I fit one of the half-laminated boards to the sled jig and glued on a leading, sacrificial piece to avoid chip out of the board by the surface planer. I used hot melt glue to secure the board to the sled

2. It is run through the surface planer with subsequent light passes until the total marked out wedge wood is removed. This step cut out will be replaced with yellow heart wood and will provide the intersecting, contrasting wood pointed pieces in the final bowl design.

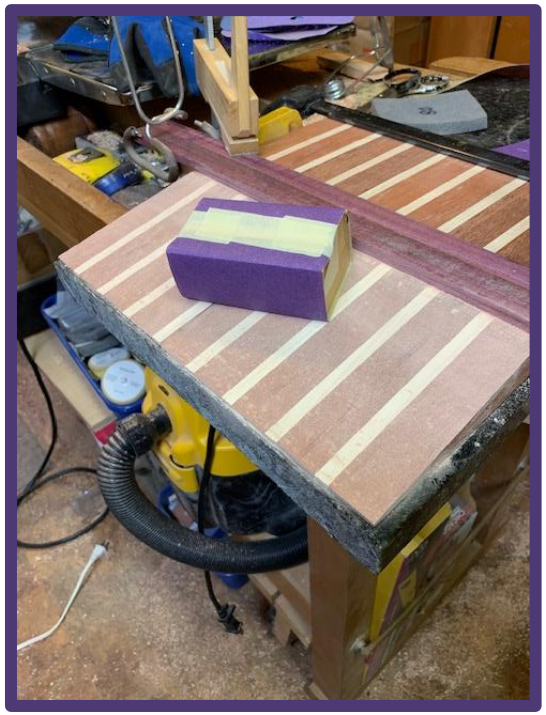



Sled mounted board for making the first surface planer cuts, planing the angled slope on each board. This removes an inclined wedge from one end of the board. (I have my fingers crossed for good luck!)

I first tried the sled planing process on a scrap piece of wood to be sure the angled cut works properly




Checking the near finished length of the surface planed incline.



Checking the fit between the two mated up boards after the incline planing.

Getting ready to replace the surface planed inclines with yellow heart

Jointing the yellow heart where the two halves will ultimately be glued together

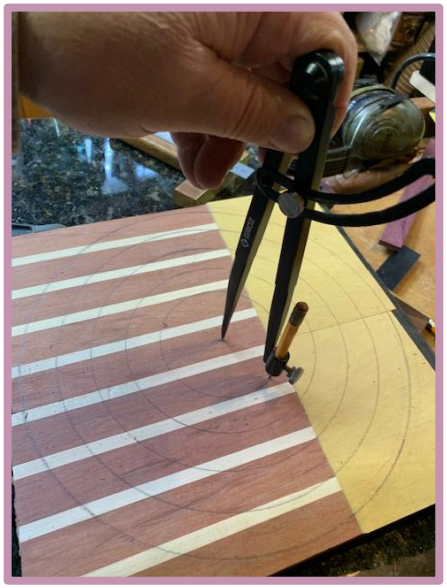
Gluing the yellow heart pieces after sizing to each laminated board incline

Gluing the yellow heart to the incline slope on each half of the two laminated boards

Lots of clamps needed for a good glue joint.


Rough band-sawing “proud” the excess yellow heart.


Finish surface sanding to 240 grit (with drum sander) the two laminated boards after the yellow heart is glued on



Redraw the ring circles to the added yellow heart additions

Ready the bandsaw with a small 1/8” 8 tpi blade and tilt the table to 45 degrees

Start cutting out the rings on each half board, staying just outside the scribed circle. (Since we are cutting half rings out with a band saw, this is the reason the two laminated half boards could not be glued together earlier.)

Finish cutting out the half rings

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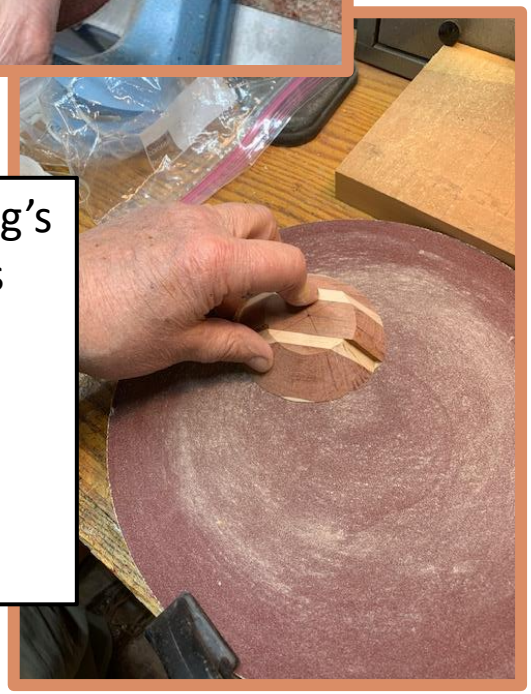
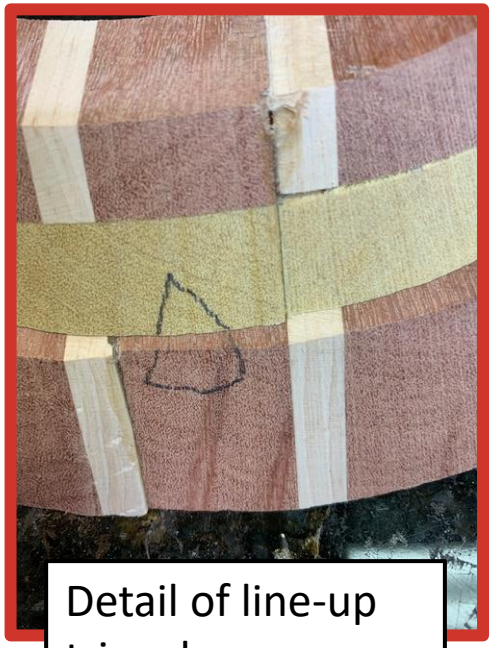
Invert the cutout half rings and dry fit the assembled bowl to check the final appearance before gluing the half rings together. (At this point, I was disappointed to notice that I would have much preferred the yellow heart tips to have come much closer to the bowl's midpoint by making the yellow heart insert half the length of the laminated board. Duly noted for next time!)

Titebond III glue has always performed well for me



Flatten each ring's mating surfaces by sanding on a perfectly flat board before gluing the rings together

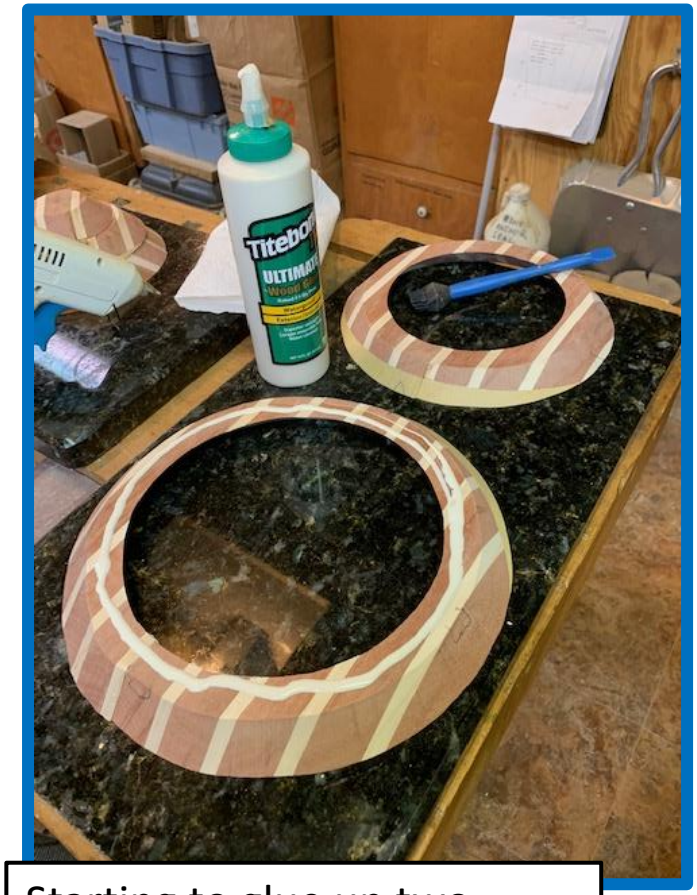
Carefully align the mating rings as glue is applied, marking the joined rings with a penciled triangle, and adding hot melt glue to the joints to lock the Titebond glued rings from slipping out of alignment



Detail of line-up triangle

Hot glue applied at the joints to prevent alignment slippage during ring glue up

A homemade clamping press to achieve consistent glue joints on ring glue up is very helpful




Starting to glue up two rings. The glue should squeeze out 100% all around the joint when pressure is applied to insure a perfectly glued joint.

Preparing a glue block to mount the laminated bowl to the lathe by joining two 3/4” oak, 3” x 3” square pieces together

The glue block is mounted on the lathe using a screw chuck. The mounted glue block is trued and registration circles are marked on the glue block 1/8” apart for accurate centering of the bowl.

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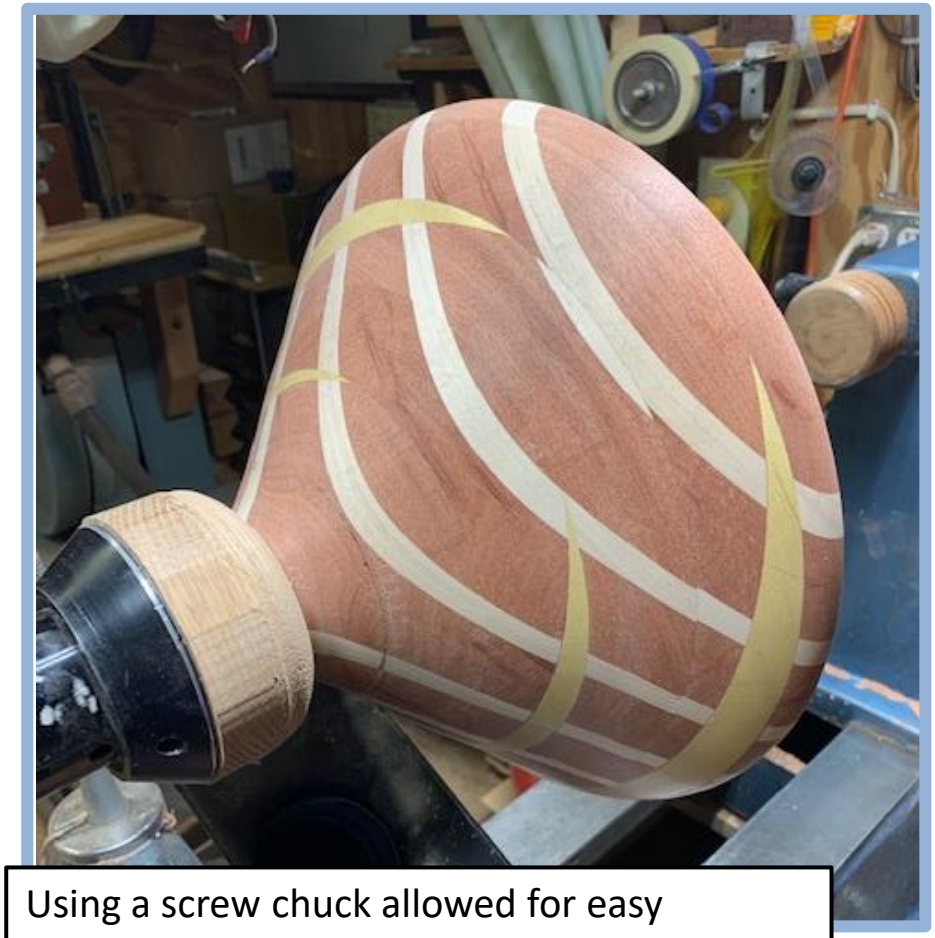
Gluing the bowl to the glue block: bring the bowl bottom forward onto the glue block by tail stock pressure.

Using a rotating, 3” flat tail stock support center that I had made years ago. It fit the bowl bottom perfectly, giving much added support for turning the inside. You never know when a seldom used accessory is still handy to have!

Starting to turn the outside. I had left the square outside corners on the outside ring thinking I might want to carve handles on the bowl from them. I later decided not to and cut them off on the bandsaw.

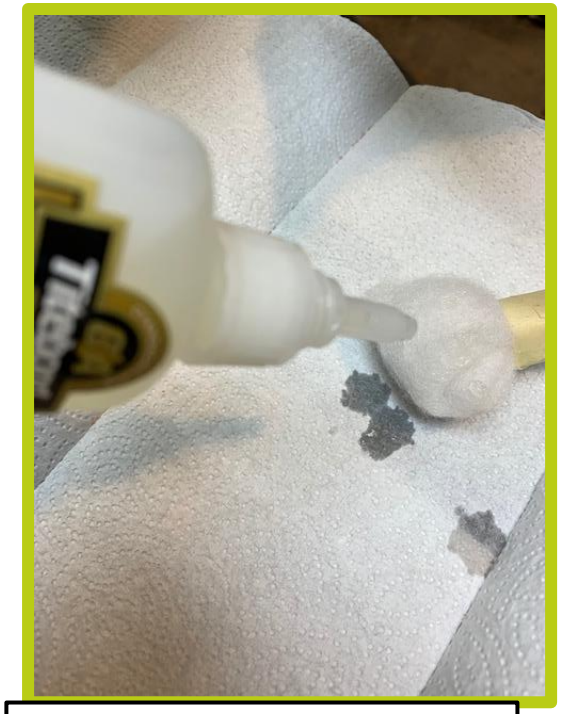


Using a screw chuck allowed for easy removal of the bowl from the lathe, for the late decision of cutting off the square corners on the outer ring. (Unlike using a scroll chuck or a faceplate, I feel replacement back onto the lathe after removal is always easy, with the piece again running perfectly true.)

Cleaning up the glue joint junction between the bowl and the glue block with a pointed vortex tool. (I was beginning to think about leaving the glue block on the bowl as a complimentary, nicely shaped base.)

Taping the glue block off in preparation for coating the bowl with CA glue. Michael Mode's signature technique uses a finishing process that includes first sealing the wood with CA glue after sanding to about 600 grit, followed by sanding again, then a coat of hand mixed button shellac, re-sanding, followed by French polishing.

This is done with the lathe running at around 300 rpm by using a 2nd hand-mixed, golden blonde shellac applied with a soft cloth with the leading edge soaked with olive oil, acting as a lubricant, to aid the fast-drying shellac. (I had never tried this multi-step, admittedly crazy sounding process before but it does yield very impressive results. I need to perfect it further for my own future use.)



The CA glue sealing operation, applied with a taped handle to a piece of polyester batting material, with the lathe running. Strong fumes warning: be sure to wear eye and face mask protection.


I decided to leave the oak glue block on the bowl's bottom as a "trial "embellishment, thinking of dying it black and finishing with white liming wax to emphasize the open oak grain. I tried first using Feibing's leather dye, which I have used successfully before, but for whatever reason it did not work well on the oak base and I ended up sanding it all off.


I decided to spray black lacquer to the open grain, funky oak base in lieu of the shoe leather dye, which was a mess

Several coats of black spray lacquer worked much better than the leather dye in this scenario

Applying the white liming wax across the grain of the black lacquered oak base. I referred to Steve McLoon's good handout for successful liming wax embellishments. (That's not my regular toothbrush!)

Finishing up by removing the screw chuck hole on the base bottom

I know that I am still in the very early throes of learning this unique style and I hope to better understand and improve upon it as I continue making more improvements to my process. I know I can do better.

Lee Tourtelotte

My first “laminated bowl from a board” design from the borrowed Michael Mode process had a few observed disappointments. There was some unnoticed alignment shifting between rings during glue up that I cannot account for after being very cautiously aware and warned of this problem by Michael Mode. Something to analyze further and try to perfect on the next one!