Kurt’s clinic

Kurt Hertzog answers readers’ questions

PHOTOGRAPHY BY KURT HERTZOG

Some of my early segmented learning. Walnut and plywood segmented bowls

‘I see the fancy segmented works and hear how wonderful segmented turning is. I must admit I’m intimidated. Suggestions on starting?’

I have dabbled in segmented turning over the years and found it enjoyable both to create blanks and turn them. I never tried the fancy patterns, pictures, or other more exotic things. The two huge advantages for any turner are turning only face grain and the ability to create blanks that don’t exist in nature. Let me elaborate a bit on both of those.

Gluing up a segmented blank allows the blank to present only face grain to the turner. The beauty of this is not only far more enjoyable turning but also the elimination of end-grain tear-out issues. Without tear-out, sanding and finishing is far easier, quicker and can be much better looking. The face-grain blank can be constructed in any size, shape, and mixed species. Obviously mixed species don’t exist in nature so that is an advantage of segmenting. The size and shape also present huge advantages.

One of the reasons for turning green wood is to work with a blank that would be difficult and impossible to find based on the size. Drying large blanks is time consuming and difficult with much loss due to cracking and checking. Creating a blank from dry wood, glued together without being a solid block, presenting only face grain and without any final size limit presents limitless opportunities. I’m sure you’ve seen the hollow forms that are many feet tall. I’ve seen some that are 5ft or 6ft tall. They were created using segmented blanks. I can’t imagine anyone finding a blank or blanks that would work as well.

There are many accomplished segmented turners with works on the Internet. Do a search and you’ll find plenty of inspiration. YouTube also has a wealth of material that will get you on the right track. I’ll include some of the things that I think are key to success. Again, I’m a novice at segmenting but did find some items that were really key to being successful with segmented blanks.

My first suggestion is to work on the fundamentals using ‘scrap’ wood. I don’t mean junk, but rather modestly priced, decent turning wood. Don’t waste expensive wood and get bogged down with anything too creative until you master the basics of cutting, gluing and building layers. You’ll have plenty of time to get artsy. Rather than get long-winded in descriptions here, I’ll try to give a crash course on helpful basics of the process using images and captions. They should get you focused on the early skills, I feel, that will need to be mastered before you get too far. Should you get into segmenting, please send along your progressions and I’ll be glad to share them.

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Kurt’s advice

1 You can cut your segments on almost any saw. I use a chopsaw. First, square up everything on the saw to get started.

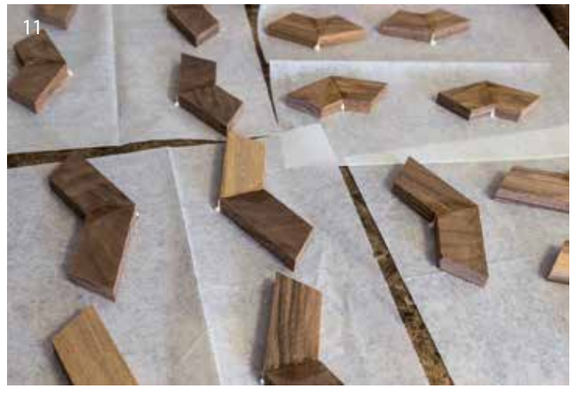
2 Most important, ignore any angle markings on the saw as they will not be accurate enough to produce accurate segment pieces.

3 Use any angle gauge you have to set your cut angle as accurately as you can. Notice the backing board and stop block in place.

4 Using less-valuable wood, cut your first set of test pieces. You’ll use them to check on the angle accuracy and adjust accordingly.

5 The best way I’ve found is to cut the required number of test pieces to build a half circle.

6 Glue up those test pieces into the half circle. Once dry, check for the flatness across the faces to determine the accuracy of your cut angle.



7 Make the minor adjustments until you get the flat surface then make test blocks using your intended material.

8 You can check these without gluing up since they should be perfect or very close. Fine tune the angle of cut if needed until perfect.

9 Once the angle is set and your stop block is set for segment length, cut your segments. Adjust the stop block for length as needed.

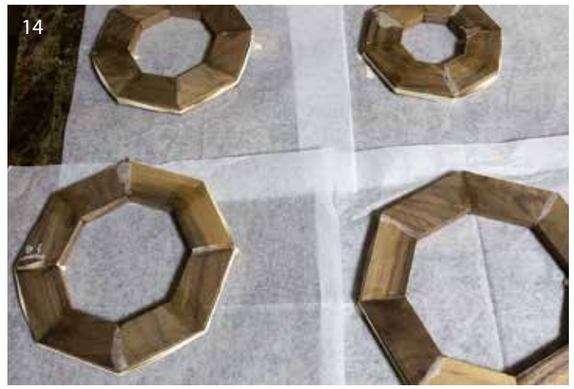
10 I use regular wood glue and a rub joint. It is simply glue on the faces, rub to create a bit of heat, put the joint together, and hold a moment.

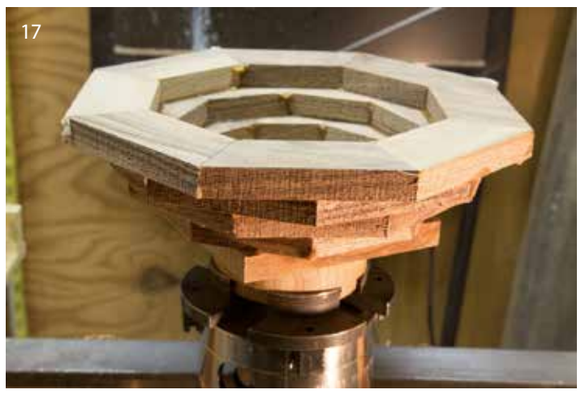
11 Don't try to glue up big sections. Glue up pairs of segments keeping the segments flat against your work table.

12 Once your pairs have dried, glue up pairs of pairs. Depending on your design, you may have many more segments.

13 Depending on your angles and number of segments, you may have more than mine, but glue up the segments until you have half circles.

14 Dry fit the halves together to check the interface seam. With accurate angle cuts, you should be close. Sand flat if needed and glue.





15 There are many ways to glue the segmented rings together. Rather than all of the special clamps, jigs, or fixtures, I use my lathe.

16 I clamp the smallest ring or base in a chuck and position the next ring, gluing it in place, using the tailstock as a clamp.

17 Repeat the process with each ring until you have the entire stack glued together. It goes very quickly since the glue sets up fast.

18 As noted, the joy of turning segmented blanks is that the cuts are all in face grain.

19 Sanding and finishing go quickly. No tear-out of end grain to deal with. This example does have a solid base so there is end grain there.