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## Making Twisted Segments for Eclipse

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I built Eclipse in 2007 and it still gets interest when I display it. The most striking feature is the way the segments have that dramatic upsweep in the dividing line between the Chechen and Bubinga. I'll attempt to show how I did that and also offer some offshoot ideas for you to consider.

First off, you clearly can't actually twist the wood. That effect is an illusion made by turning the compound curve on the side through the plane of intersection between the woods. That line is actually straight. You'll see that in the photos to come. There are several ways to get this effect, but the way I used also keeps the upper and lower dividing lines symmetrical. That is to say that the lower break between the Chechen and Birdseye Maple is even between the segments. This occurs because that line runs at a 90 degree angle to a line drawn out from the center of the bowl.

### The Steps

The first step is to select the woods you want to use for the segments and cut them in strips long enough to give 8 segments of the height you want. Don't forget to allow for the saw kerf, which in my case means I have to add 1 inch to that length (8 cuts with a 1/8 inch wide blade). Then I just added a piece of contrasting veneer and glued them together. This is the same way I make a standard 8-segment bowl so there's no magic here.



The next step will be the one that's different and makes the "twist" happen. I glued a small strip of wood on one edge of the glued up assembly that is about 3/8 inches square. You can see how that looks in the photos below.



Now that that's in place I'm ready to go to the planer. The idea is that I place the entire assembly into the planer with that strip of wood facing down. This will hold the assembly on an angle so that as I plane it off bit by bit it effectively angles the plane of intersection of the Chechen and Bubinga relative to horizontal. You can see that happening in these photos:



Once you get the first side flat all the way across you just flip it over and plane the other side parallel, and in the process that small strip of wood that kicked up one side will be taken off. Now I'm ready to add the strip of Birdseye Maple to complete the assembly that I'll cut the segments from. Once that's on I trim the sides to the required 22 ½ degrees on the table saw.



You can see below how the segments look dry-fit together.



Once I'm happy with that I can glue everything into the final ring that will then be glued to the wood that will be the foot of the bowl.

### **Another Approach**

Below is another idea that will give you interesting results. Instead of using the planer to make an angled plane within the segment you can cut the two ends at different angles. As you remember, we cut the segments at  $22\frac{1}{2}$  degrees and glued those ends to each other to make the complete ring. However, the thing to keep in mind is that you only have to make sure that the two angles on each end add up to 45 degrees for an 8 segment ring. Therefore, as long as the cuts add up to 45 degrees they'll combine to give you the full 360 degrees when they're all together. Below I show how cutting one angle at  $12\frac{1}{2}$  degrees and the other to  $32\frac{1}{2}$  degrees will give you a similar result. Keep in mind though that using this method will make the top and bottom edges twisted too. It's still a neat thing to experiment with.

