

IWG Seminar October 2017...Clive Brooks

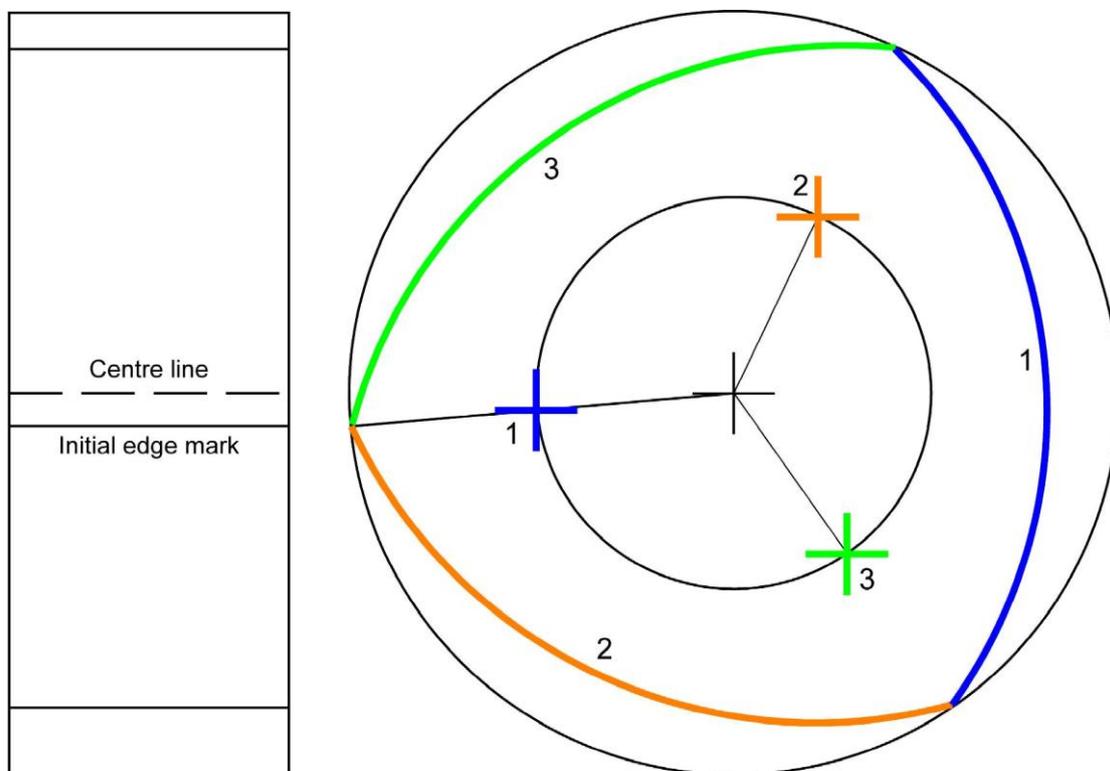
How to turn a multi-sided bowl between centres

1. Take a bowl blank and mount on a faceplate or faceplate ring. A screw chuck can be used but the hole will cause the marking out to be less accurate on that side*. True the edge and face of the blank - the face must be turned flat. Cut a recess for your chuck leaving the centre of the recess level with the face of the blank - this is needed for the marking out later. Next mark the centre.

2. Remove the blank from the faceplate or faceplate ring and mount on a chuck. True the other face ensuring that it is flat. Again, mark the centre*. Using the tool rest mark, a line across the edge of the blank. Then take the blank from the chuck.

3. The next step is mark out your blank. This is a vitally important stage, as it will determine the size and shape of your bowl* (see below). **For this example, the marking out will be to turn a three-sided bowl.**

Draw a circle on each face with a compass – the diameter of the circle will depend on the swing you have over the bed of your lathe. Then mark a line from the one marked on the edge to the centre point and with a pair of dividers or a protractor mark 3 points at 120 degrees apart on the circle. Where these lines intersect the circle mark with a bradawl. Repeat on the other face using the line marked on the side as a datum point. Using a compass, mark from one intersection on the circle to the opposite edge to determine the edge of the bowl. Repeat this on the other two intersections and on the other face. These lines will show in turning and will give a line to work to.



Mark both faces as shown

4. Fit a standard Stebcentre (preferably 7/8" diameter) or a Steb Drive in a chuck (which is 7/8" diameter) in the headstock and a Revolving Stebcentre in the tailstock. Mount the blank between the Stebcentres on the first point (point 1) on the circle. Ensure that the blank clears the lathe bed and carefully position the toolrest.
5. Select a slow speed and turn on the lathe. If you have a variable speed lathe it is easy to increase or decrease the speed. A faster speed will allow the tool to cut more efficiently but **always consider your safety and others around you** and remember the blank will be turning off centre so there will be vibration.
6. With a 3/8" or 1/2" bowl gouge turn the first side. Move the tool rest in frequently as the side becomes smaller (always ensuring the blank clears the rest). Turn down as far as the line marked on the face of the blank. Remember that the bevel of your gouge will only be in contact with the wood for a third of the time so concentration and tool control is essential.
7. Repeat stages 4 – 7 for the other two sides.
8. Remove the blank and remount on the faceplate. Turn the underside to the required shape and clean up the chuck recess if needed. Sand the underside of the bowl using a hand-held inertia sander. It is not recommended that you sand by hand due to the blank having multiple sides. With the lathe stopped you can apply an oil finish. If a friction polish or other finish that requires buffing is used then this is best done with the bowl removed from the lathe and use a lathe or bench mounted buffing system.
9. Now remount the bowl on the chuck and turn the bowl to your required design and shape, then sand and finish to complete your multi-sided bowl.



* You can turn any number of sides as shown in the picture above. It is best if the number of sides is easily divided into 360 degrees. 3 = 120, 4 = 90, 5 = 72, 6 = 60.