

## Star Turn – December 2020 Demo by Theo Haralampou



By Robin Goodman

Theo (1) lives in Queensland and has been on the woodturning scene in Australia for many years. It was

his desire to make drumsticks that originally led him into woodturning. Even today, he continues to play the drums professionally (2). He has been a regular demonstrator at most of the big symposia and shows in Australia, only occasionally venturing abroad, such as to demonstrate on the 2014 Norwegian woodturning cruise. With the imposition of this year's Covid restrictions, he set up his workshop for giving remote demos and has now been able to reach a worldwide audience. He had a slot at the large Woodturners Worldwide virtual symposium in September and recently has done a series of demos for Record Power, transmitted to several countries around the world, so he is now in high demand.

Looking at the 8-pointed star (3), it is surprising to find that it can be turned on the lathe, so I was intrigued to find out how he made it. He said that after he came up with the idea, it took him 3 hours to work out how to

make it, but 3 days to work out how to hold the star at the various stages. He was happy to share with us the method he uses; essentially it consists of just 3 large 'V' cuts on 3 different axes, but that is easier said than done!

He started with a 60mm cube blank between centres (4) and proceeded to carefully make a central cut with a parting tool to a specified depth that would delineate the core of the star. Both sides of the V cut were then formed symmetrically until



the start of the cut extended out to the corners of the cube (5).





To hold the piece on a second axis at right angles to the first, he made a holding piece that involved forming a hollow that would match the circular v-cuts on the star. The holding piece was then accurately cut in half. One half to be held in the chuck, the other in the tailstock with a revolving cup centre recessed into the holding piece. He was able to clamp the star between

these two halves (6) and make the final v cuts on the remaining 2 axes.

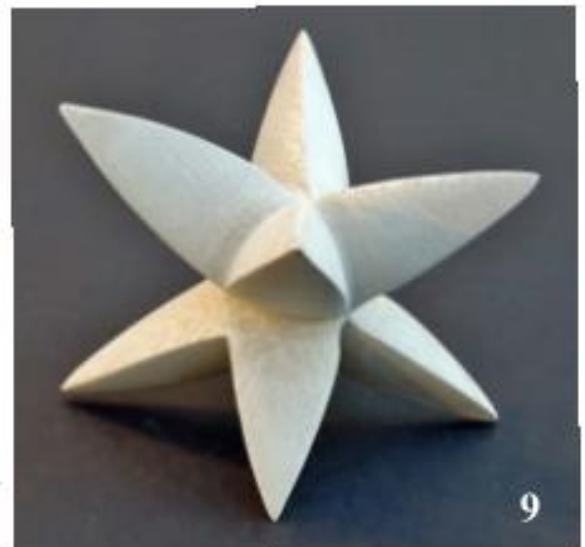
As if by magic, when he removed it from the clamping pieces, the 8-pointed star appeared (7).

37 club members saw the demo live and others had the chance to watch it later. We had plenty of tips and advice along the way in a very friendly and informative manner. I was very impressed with the demo and can do no better than repeat the words from his local woodturning club president about a Theo's demo : "Well prepared, fully equipped, light hearted, informative, fast and fascinating".



Theo's 2 camera set up works well for interactive remote demos

(IRD's) direct from his workshop, making it so much easier for him to give demos using his own lathe, tools and equipment and without the need to travel. It also enables him to give demos to anybody anywhere in the world, yet retain the important interactive element for demos. These IRD's may well remain a useful source of demonstrators, even after we are allowed face-to-face



club nights.

Subsequently, I made a star using his method, but from a slightly bigger blank, a 75mm sycamore cube. Theo made it look easy, but I found it was difficult to get the geometry of the sides of each v-cut accurate enough. Any slight difference also made it more difficult to hold the piece in place for the second two V cuts, because the holder did not exactly match the shape of the star, which tended to twist or move when turning. Theo had given one tip to wet both contact surfaces to increase friction. I reduced the problem by using temporary hot melt glue to hold it in place. The points ended up not being all equal or symmetrical. I tried a version with colouring each of the rounded triangular cross section faces differently (8). The uncoloured version (9) is also shown above

Tools need to be very sharp, especially as most cuts are not continuous - through both wood and air. Very careful tool control is required, but no special tools needed – just a thin parting tool and small spindle gouge. Only small wood blanks required. For best results and a symmetrical star, accuracy is very important. The starting cube needs to be cut accurately with equal sides and 90 degree corners, then the centre points for the 3 turning axes marked carefully. If the inner end of each of the 3 v-cuts is not exactly on the same diameter, then they will not match and it may be obvious on the finished star.

This project is not for beginners, but it is worth anybody else having a go. The end result is satisfying and impressive and can be a talking point with people asking how it was made.