

Shavings No 57 - November 2019

On Saturday 9th November 2019 we had the pleasure of watching Pat Carroll present a wonderful demonstration in the Wood Shed, Templepatrick.

Pat's demo piece was a beautiful carved, coloured and inlaid square box that is a recent signature piece in his collection. The box has six pewter inlays, one on each face, and is approximately 80mm³.



Starting with a dry Yew blank 80mm x 80mm x 120mm Pat used a centre finder to determine centre. He recommended using the centre finder on every corner to see if there was any discrepancy in the 'squareness' of the blank and adjusting the position of centre to the best average if no definite spot was identified. Once the centres were found the blank was mounted between steb centres because a cone centre at the tailstock could drive into the wood and adjust the position of centre or even split the blank. Hardwood is best for this project because it takes texture well.

The blank was turned at high speed to minimise 'negative space' or the time spent

cutting air and a tenon was cut on each end that would be used to hold the lid and base in a chuck. When Pat mounted the blank in the chuck he did so by holding the blank at the top of the box as that minimises the number of times the piece will be remounted during the process and he used the tailstock steb centre to align the blank before fully tightening the chuck. This helps prevent the chuck jaws squeezing on a softer part of the wood and throwing the blank out of alignment.

The next step was to mark the cut-off point for the lid taking into consideration that the pewter discs were going to be set in the centre of each face. The Golden Mean gives pleasing ratios but it is still possible to set a parameter within a piece and retain dimensional integrity. Having decided where to make his cut, Pat put a witness mark on the blank for realignment later and used a parting tool to cut to solid wood and then widened the cut to prevent binding. He cut to depth in stages taking small bites until he was satisfied that the tenon the lid would slide on was equidistant from each face. Before parting the lid off Pat ensured the tenon was true and then cleaned it with a parting tool making sure, before parting off, that there was enough of a space to allow for the height of the tenon, the width of the parting tool and a 0.5mm reference line on the top for fitting the base later after parting off. The parting cut was started with a parting tool but was finished with a Japanese saw with the lathe stopped because it is too dangerous to try to grab a spinning square block on final parting with the lathe running.

Now the inside of the lid was exposed and could be worked on. Pat cleaned the surface with a spindle gouge and then hollowed the lid taking gentle cuts from the centre to minimise tear-out and worked to near the reference mark for the base tenon

diameter. He cut to depth and then slowly, using a specially ground spindle gouge, cut towards the witness line he had left when parting the base off. This gouge was cut like a skew to prevent it being pushed away from the wall of the box as it went deeper into it. Using the tip of the gouge (a skew would do the same thing) Pat took



light cuts and sneaked up to a good fit for the base of the box. Once satisfied with the fit Pat checked that the surface of the lid was square to the base and took light scrapes with the special gouge to square the surface for a flat fit without spaces, a negative rake scraper would do the same job.



To finish the inside of the lid Pat sanded it and then used a knurling tool ([Ron Brown's Best](#)) to texture the inside. The tool is pressed into the wood, retracted and moved to the left, it is not dragged across the surface like some texturing

tools. With three lines of pattern embossed in the wood Pat cut lines between them with a 3-Point tool ([Crown, available from Wood Shed](#)) to define the texture.

Now that the lid was complete on the inside it was removed from the chuck and repositioned on the blank with some tissue to tighten the fit and prevent possible movement during turning. Again, Pat used the tailstock step centre to help align the blank in the chuck and, with the lathe running very fast, the tenon on the lid was removed and the lid was checked for being square. Then the tiny stub left in the centre of the lid was removed carefully (this will be drilled out so some torn grain is not an issue) and the tailstock support removed.

The tool rest was aligned on-centre in order to draw pencil lines across the top of the blank that radiated from the centre. These lines would be used to help cut grooves in the top with a Proxxon, long-neck, multi tool ([Proxxon](#) - Available in The



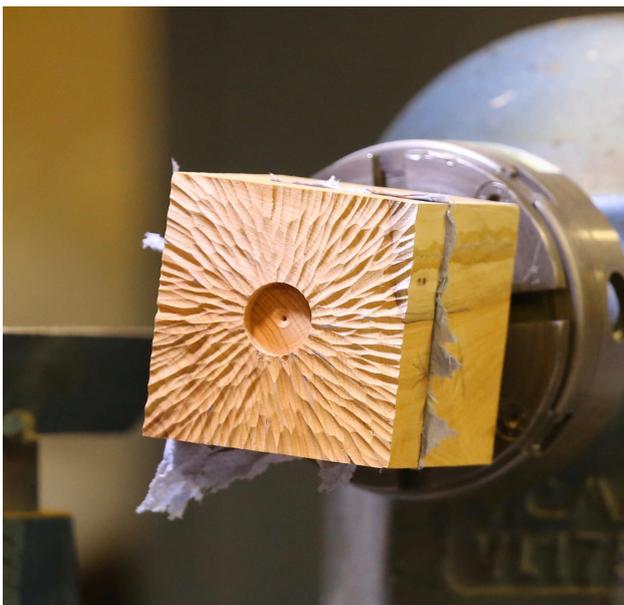
Wood Shed) and Arbortech Mini Industrial Blade cutter ([Here](#) and Wood Shed). Pat took some time to ensure that we understood that this is a dangerous tool and that he would turn the power off at his own lathe if using any power tool on a piece, especially the Proxxon and cutter.

With us well warned Pat proceeded to cut lines in the lid by starting at the far side of the blank, gently touching the wood, and cutting towards the centre following the pencil lines. This ensured that the cutter



was always coming into wood. He used the tool rest as a steady to support his arm and make the process as safe as possible. This tool has to be kept under control. Pat rotated the blank using the hand wheel (not the chuck because his hand would be too close to the cutter) and worked his way around the lid touching up areas that needed a little more attention.

When the texture was complete a Forstner bit was used to drill a hole for the pewter disc that would be glued in later. The depth



of cut was marked on the drill bit and Pat cut gently to keep the cut clean. Had he

been at home he would have used an air line to blow out the swarf but, in this case, he stopped the lathe before withdrawing the bit to clear it so that the swarf didn't spoil the cut.

Satisfied that the top/lid was complete, Pat measured the width of the box and transferred that measurement to the base to mark the cut-off line at the base to ensure that the box was a cube. The lid was removed and the Forstner bit brought up to the base to be marked for drilling the base to depth before hollowing out. Once again, Pat would have used an air line to blow swarf out but, instead removed the drill bit regularly. He pushed on the tailstock to drill because the quality of the hole isn't critical and it saves time. When the hole was at depth Pat used a spindle gouge held at 45° to clear out the wood cutting from the centre hole to the wall of the box. He cleaned off the top of the base and worked on the internal wall by lining a specially cut scraper up with the ways of the lathe and then adjusted the angle of cut by moving the handle of the tool across the bed of the lathe so that he could cut down the wall without the cutter being pushed away from the wall. At this stage Pat produced a corded, magnetic, LED light ([Woodart Products](#) - Sam is investigating stocking these lights) that sticks to the tool rest and this helped him see inside the box more clearly. He used a tear-drop scraper to refine the wall using very light cuts, advising us to take time to save time because it is very hard to sand the inside corners of the base of a box. When satisfied with the finish the piece was sanded.

The box was removed from the chuck and another chuck with dedicated jaws was mounted. The jaws on this chuck were designed to hold the square box and allowance was made in design for slight variation in box sizes. The bottom of the box was remounted in the wooden jaws with the tenon out. This was removed and, as before, radial lines were pencilled in and then cut with the Proxxon rotary tool.

Once complete a hole was drilled for the pewter disc in the centre of the base.

Next operation was to texture and drill the sides of the box so the lid had to be put on to ensure the box was in the correct position for texture and drilling. In order to help keep orientation as true as possible, Pat marked one jaw with a 'T' for 'Top' so



that the lid was always in the same position as the blank was rotated in the chuck. The process of drawing lines, texturing and drilling was repeated for each of the other four sides. At one stage, early in the demo, Pat noticed a small chip-out at the top edge of the box but told us he wasn't concerned as it could be negated with the texture and nobody would ever know about it.

In order to finish the box Pat lacquers the inside because that allows easy removal of any over-spray that may leak into the joint at the lid when spraying the texture on the outside. The outside is sprayed black from the top and bottom to ensure all the texture is covered.

The pewter discs are made in sacrificial wooden moulds that are cut with a disc shape hole in the middle and a tenon on the back for holding on the lathe after pouring. Pat buys pewter blanks/ingots from Amazon ([For Example](#)) because the lead content claimed is generally more reliable than other sources. Second hand pewter may contain a lot of lead which is not a good thing. Pat melts the pewter in a

saucepan with Mapp gas and told us the amount of scum on the top is a good indicator of the quality of the pewter. When pouring it can be useful to keep heat on the liquid pewter as it cools very quickly. The wooden moulds have a line marked for the pour level so that the finished disc sits low in the hole in the side of the box. Use DRY timber for the moulds because moisture will cause problems, big problems. Pat pours the pewter discs in big batches and then, when cool, glues them into their mould before mounting them in the chuck because they shrink slightly on cooling and can fall out when turned. Using a round-nose scraper, Pat cleans and flattens the surface of the pewter and then adds texture with the knurling tool. To remove it from the mould, he cuts towards the disc with a parting tool until he sees metal and then widens the cut to expose the whole side of the disc. If there is some wood or glue (white residue) on the side of the disc he scrapes it off by hand, moving the hand wheel of the lathe



and just removing it from the area that needs attention rather than reduce the full circumference of the disc by running the lathe. When the edge was complete Pat cut down the back of the disc, snapping it free with the parting tool and removing the little nub with a Japanese saw. Wet and dry paper is used to sand the pewter. The discs are sprayed with lacquer to prevent

oxidation before being glued into the sides of the box.

This is a beautiful piece and would grace any dressing table, sideboard or display case.

To complete his demo Pat demonstrated a method he learned from Jimmy Clewes (a great favourite of the Ulster Chapter) for cutting an ogee on the base of a bowl. He mounted a blank on a faceplate and secured it with the tailstock. It is always good practice to use the tailstock whenever possible for both safety and stability. Pat trued the bowl left-handed to avoid shavings by cutting from the base to the rim and flattened the base using the bottom wing of the bowl gouge. Next he marked the recess for chucking on the base using dividers and gave us a good tip. Put a little masking tape on the end of one leg of the dividers so that you see it move as the leg gets closer to the wood. This helps prevent the leg touching the outside of the blank and being thrown from the hand.

The recess in the base of the bowl was cut to depth and cleaned with a 6mm parting tool. At this stage it is useful to have a tool ground to the same angle as the chuck jaws to ensure good contact with the jaws later. Pat used the tailstock centre to mark the centre of the recess for remounting the blank later.

Pat marked three lines, equal distance apart on the bottom of the blank and where the top of the bowl would be and then cut from the first line to the top to join them up in a straight line. He then created a curve between the two lines using a gouge and then refined it with a gouge that had a short bevel and the heel ground away. That helped get around the curve and prevented pressure marks on the wood. He then used a big scraper to refine the curve and used a gouge to make the round-over at the base by scraping it to shape with the bottom wing. Here's a video of Jimmy Clewes explaining the process in the first 35 minutes of [Jimmy Clewes cuts](#)

[an ogee](#) (the video may open partly running, the link starts at that point so you may need to restart the video).

Any torn grain can be removed using a cabinet scraper ([Amazon has lots](#)) but it's important to keep the scraper moving taking very light cuts, supporting the scraper hand with your other hand like you would do sanding. An oil or wax lubricant



can be useful to eliminate stubborn tear-out.

As a finale, Pat rescued a bowl he had passed around the room that had a lacquered finish. The audience didn't know that it hadn't been completely finished so he mounted it in a chuck and sanded it with Micromesh sanding pads (available in the Wood Shed at superb value compared to Axminster) and water. When sanding with the Micromesh Pat went through the grits in order regularly rinsing them in water and cleaning residue off the plate with tissue before the next grit was used. This resulted in a beautiful, smooth, finish, much different to the original lacquered one. Pat's final advice was to allow coats of paints and lacquer to dry properly before applying any more because this results in a much more stable, workable, finish.

This was an outstanding demo and we thank Pat for his wonderful presentation, advice and humour. It's a measure of the man that he came to the writer after the demo to ensure that Jimmy Clewes got credited in 'Shavings' with the process for cutting an ogee.

We look forward to having Pat back again very much and thank him, and Jenny, for making the long drive from Co. Wicklow.

Snowmen and Christmas trees

Once again we had a visit from Jenne McDonald and her husband to pick up all the turnings you had all made for the Royal Belfast Children's Hospital. Jenne thanked you all on behalf of the children from around the childrens hospitals who get the benefit of these turnings. Our next date is Easter, no doubt Eugene will give us our instructions as to what to make.

You all deserve special thanks, especially Ricky and his team for supplying loads of free wood for us to turn.

December

Our AGM will start at 1200, see the separate notice. If you want to bring a lunch with you to have between the AGM and the demo, please do so.

Demonstrator will be Max Brosi, all the way from Co. Leitrim. We start at 2.00pm.

Competition Results

Competition for Category 1 was for a set of coasters and a holder.

Category 1

1. Ian Spence

Photo in facing column

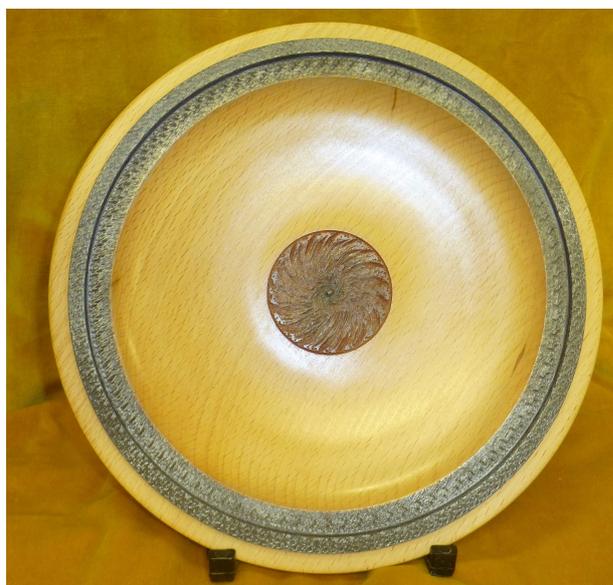


2. David Stewart



Category 2

Category 2 was for a decorated plate
1. Jim Neil



2. Paul Finlay



3. Malachy Totten



Please read the AGM Notice of Meeting that accompanies this Shavings.

Thanks
Peter Lyons
Brendan McAreavy
Paul Finlay