

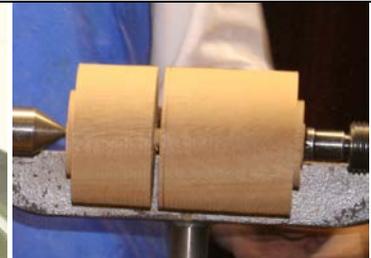


Jimmy's 2<sup>nd</sup> demonstration was what he called an African Drum style box made from Iroko with a cocobolo insert in the lid with inlaid sterling silver.

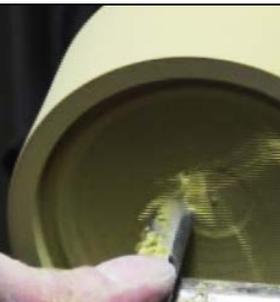


He started by roughing out the block with a roughing out gouge, which he warned us was a spindle tool so should not be used on bowl blanks. He started the lathe to about 1000 rpm and got us to listen to the sound of the cut then turned up the lathe to full speed so we could hear the difference and Jimmy said there was less resistance to the cut and you got more fluidity at a faster speed. He stood square on to the lathe and used the flat across the wing, which is a shear cut and just leaning from one end to the other to get a smooth and controlled cut.

*We were reminded to always keep the tool rest smooth with any nicks removed by filing and sanding.*



A tenon was needed on each end. Jimmy used a standard 1/8<sup>th</sup> parting tool to do this. He measured the width of the jaws when they were opened with about 1/8<sup>th</sup> inch gap, which meant they would form a perfect circle. The point where the box lid would be was marked, *Jimmy said he would normally cut it on a bandsaw because you lose less wood between the lid and the base and get a better match with the grain.*



The lid was remounted and to get a perfect joint between top and bottom the parting tool was used to slightly undercut the edge. Jimmy then parted in leaving the edge slightly wider to allow for the wood to move. For hollowing out a long grind bowl gouge was used, cutting against the grain from the edge to the middle. *It is also possible to use a spindle gouge with tool horizontal or slightly trailing and cut from the centre to the outside - you are only cutting with the tip of the tool with no bevel rubbing so you tend to get lines in it.* Jimmy moved on to his microbevel gouge to get a smooth finish.



Jimmy then showed us how he uses the box scraper. The tool cuts in 2 directions, down the side and across the bottom. It is ground square for about  $1/16^{\text{th}}$  across the end. It is essential to ensure the sides are parallel by lining up the edge of the scraper with the outside of the lid. The scraper was made by grinding a normal round nose scraper to the required angles. Jimmy doesn't use a negative rake on the scraper. When sharpening he never sharpens them on a jig or the right way up on a plate as the wheel tends to push the tool away. He sets the plate at the required angle, turns the tool upside down, puts it on the plate flush with the wheel so the wheel is dragging off a more even burr. Make sure the rake angle is the same both sides. The scraper was used to get the straight sides and the curved bottom, cutting from the centre outwards.



The lid was marked in 2 places to allow for the thickness of the insert. Jimmy parted the lid top with a curve as he repeated that nobody likes a flat. The remainder of the lid was then squared off so the cocobolo insert could be glued onto it – prior to gluing it would need to be sanded and sealed because it was end grain and the glue would just sink into the wood. The cocobolo had been sanded flat on a belt sander before gluing.

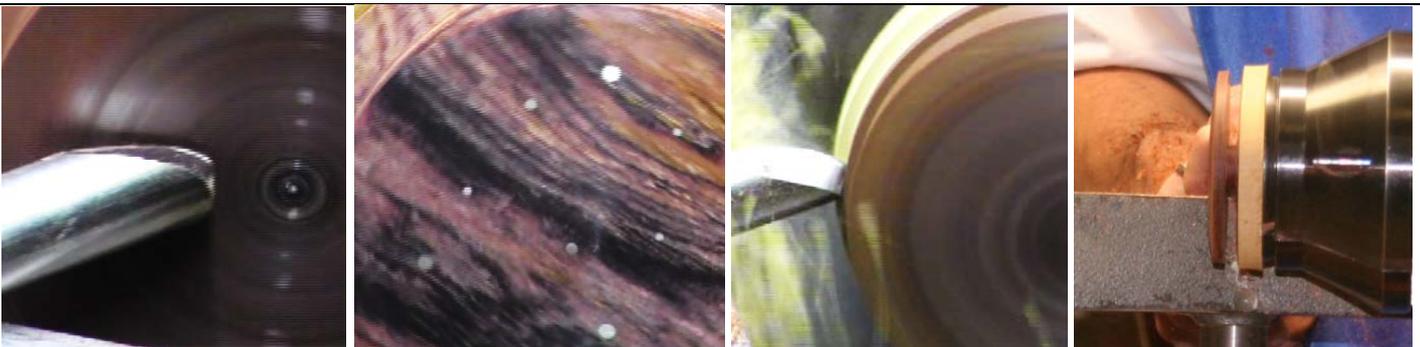


A line was scribed on the cocobolo for an insert that would fit into the top of the lid making a frame of iroko and the cocobolo insert was parted down to the marked width. The edges were then turned down gently with a bowl gouge taking very small cuts to avoid tearing the wood or making it fly off. It was then parted down square.



Holes were drilled into the cocobolo to insert silver wires, using drill bits that were the same width as the wire, Jimmy used 1, 1.5 and 2mm width wire and buys specialist jewellers drill bits. The wire was cut into  $\frac{1}{4}$  inch lengths, keeping his finger over the end of the wire to prevent it flying off. *Jimmy uses Argentium, a silver alloy that resists tarnishing 10 times longer than Sterling silver, in the US it is not much more expensive but in the UK Argentium has a higher premium.* He said you must have at least 75% of the wire inserted into the holes so that they don't flick back out. He marks the drill bits with a piece of tape  $\frac{1}{4}$ " down so that the holes are not drilled too deep. He started by locking the spindle because if it turned it would snap the drill bit. The holes were drilled randomly, although Jimmy suggested patterns could be made by drilling all the holes perhaps making a star sign in the top for a christening box. He said he also uses figured ebony as if you use plain black ebony, when it has the silver inserted and is polished, it can look like plastic.

The insert was laid flat on the lathe still in the chuck and thick superglue was used as it takes longer to dry and also works as a gap filler if necessary. Each piece of silver was inserted and tapped down – we were told not to tap it right down to the surface as there is a chamfer on the end and it will result in a rectangle of silver showing.



When the glue had dried the chuck was remounted on the lathe, turned to top speed and using a very sharp bowl gouge and very gentle cuts Jimmy cut the silver wire back. Using the wing of the tool he cut a slight radius so that the insert wasn't flat. It was not sanded at this stage as it would be sanded once it was inserted into the lid. Some of the wood was removed from the glue chuck then the sides squared up. It was parted off very slowly a small step at a time as he was cutting through silver as well as wood.



The base was mounted and marked for the lid to fit onto the box. The edge was cut at a very slight taper to help to make the lid fit well, taking as many small cuts as is necessary. The lid should fit on about half way down - a mark was made at this point and a parting tool, sharpened at an angle, was used to slightly undercut the inner edge then the lid was pushed onto the base with a very tight fit as it would need to stay on for turning.



Because the wood had moved there was a slight step in places Jimmy used his roughing gouge to recut the cylinder and the joint was given a quick sand. Using a spindle gouge the edge of the top of the lid was given a finish. The width of the insert was scribed on the top of the lid which was parted down to the correct depth and the centre was cut away with a bowl gouge.



The insert was fitted into the lid and Jimmy discovered that the gap was too large. He then spoke about ways to save a piece that isn't quite right. First of all the end grain had to be sealed prior to gluing. Once the piece was glued in square with an even gap all the way round, Jimmy suggested filling it with silver or aluminium powder round the groove and fix it in with thin superglue then cut it back so you are left with a thin silver band round the edge of the insert. The sealant was applied across the whole of the top of the lid so that if any glue comes out from the insert it can be cleaned off. The chuck was taken off so the top could be glued in horizontally and thick superglue spread across the gap and the insert laid in place. Jimmy spoke about the importance of lining up the grain of the insert with that of the lid as it looks much better.



The whole piece was remounted so the edge of the inlay could be blended in with a very light cuts. The side of the lid was then shaped – you could use the roughing out gouge, spindle gouge or bowl gouge to do the same cut. The outside of the rest of the box was then shaped so the base wasn't too fat. Jimmy left the lid on so he could see the finished shape for the whole box. The widest point was split into thirds and the base will be  $\frac{1}{3}^{\text{rd}}$  of the widest point, but he couldn't take it all the way down to the diameter he wanted as there wouldn't be the strength to hold it.



The lid was then removed and the inside removed, initially with a parting tool to establish the wall thickness then hollowed out starting with a small bowl gouge. The base was slightly undercut so that he could turn it round later and remount it on the jaws to finish the bottom. He then moved to a larger bowl gouge which would give him a better cut as the bottom of the bowl is further from the tool rest. Jimmy left the walls quite thick deliberately so that the piece had some weight to it because it was going to have a narrow foot. He said that if the tip of the tool hits exactly onto the middle of the bowl you will never have a little 'pip' in the centre. The bowl was then sanded quickly.



Jimmy finished the edges by giving them a radius and sanding it so that it was rounded rather than flat, and by softening them also gives it the appearance of being narrower than it is. He also just lightly sanded the external high point, which had been marked with a pencil, so the lid fitted on well. He also used 'Chapstick', which is a wax, on the edge which allows the lid to go on more easily.



The base of the outside was then shaped down – there was a high point which Jimmy marked with a pencil to make it easier to work on and reshape. The outside was then sanded down to 400 grit whilst holding the lid on. *Jimmy said on some pieces he will go down to 1000 grit. He commented that you shouldn't sand for too long with too fine a grit as you will get 'heat shakes', cracks that are difficult to get out without cutting.* The shellac sanding sealer was applied and Jimmy used steel wool (*must never be used in open grain timber*) to finish the surface off.

Jimmy then used his angled parting tool to part the base off so that he could undercut the piece.



The piece was then turned round and mounted it on the jaws in expansion mode to finish the bottom off with a spindle gouge. Jimmy hollowed out the bottom and also put a flat rim on the edge so it would sit nicely.

#### Notes:

Jimmy said that boxes should be twice turned, hollowing some out, weighing it and leaving it on the shelf until it has stabilised in weight then re-turn it so you get a lid with a perfect fit.

In answer to a question Jimmy said that he doesn't sand fast normally and doesn't turn fast at home as he wants to enjoy the experience.

Jimmy spoke about the best way of selling these boxes, aiming at areas where people have enough disposable income. He suggested the boxes should be put on a revolving stand with a small light shining on it so that it twinkles as it catches the light. He talked about marketing your work, displaying it at different heights, showing the wood off to the best of its ability.

Jimmy's emphasis at all times was the aesthetics of any piece you are making and using any means that suits your level of ability to achieve this. He ensures that all edges are finished well, flats are given a radius and that the whole piece will look and feel good.