Mortar and Pestle in pearwood

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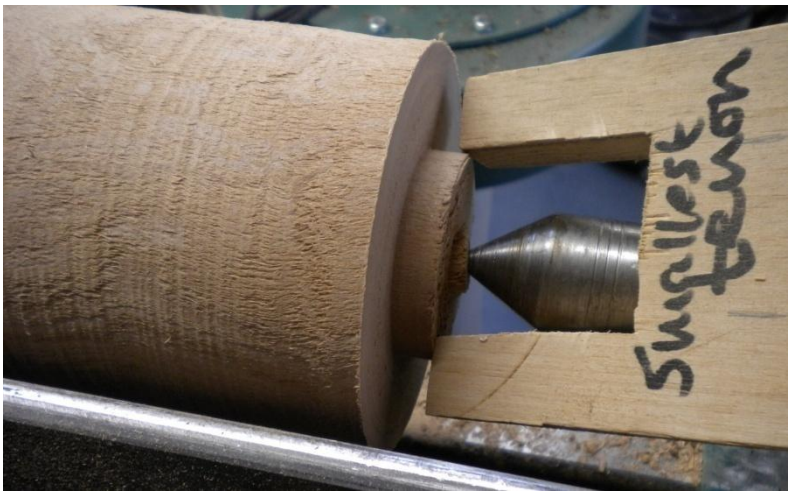
Why does a mortar need a lid? It doesn't, but if it helps contain the pestle and stop it from getting lost, and it is a bit more of a challenge to make one, why not?

I must admit the idea for a mortar and pestle only hit me a while after I had started making a straightforward box, but it has some interesting differences (I hope). I did not take any pictures of the process for the first one I made though, so it went well and I have a nice useful object. In deciding to make another one for a picture diary though, things went ..... differently.

It began with a log off my woodpile. We chopped down an old pear tree five or six years ago that had stood in the back garden for millennia, but was then producing no pears and had the signs of rot beginning. This article uses part of one of the branches. I have not got to the trunk wood yet!



As you may see I uncovered a nasty crack at one end.

But the other end looked alright so I put a tenon on it with my diamond parting tool to fit my scroll chuck....

and another just avoiding the crack, and another thinner one to separate the lid from the base. The base is on the right, the lid in the middle of the picture here. The left hand end is mainly waste, though I might saw the crack off and try to use the rest.

Here is the base with the outside smoothed off and petty well hollowed as much as I want for a mortar. I tried to get the hole hemispherical. Any round scraper would do this.

You might notice in the above photo a crack had appeared in the centre of a large knot and a few smaller ones around the knot. A wise man might have abandoned the whole thing at this point, but not me. It was another candidate for making a filler with sanding dust and glue. Eventually though, I cut the whole nasty thing off because I had made the hole for the mortar too deep anyway!

I cut a shoulder with my parting tool ready for the lid to sit on when done, and sanded the inside through the grits using machine sanding to get it nice and smooth.

I had to put a sort of cove as decoration around the middle as well to get rid of another defect.

Taking the base off the chuck, I chucked the lid section and started working it. This picture shows what nice shavings you get with a sharp scraper. If you get anything else, (for example the tool gets thrown all over the room,) it needs sharpening. I actually used a quarter inch spindle gouge for most of the hollowing

So that a piece goes back onto the chuck in the same position as it left it, I always use felt pen either side of number 1 jaw on the tenon. I do a lot of de-chucking because I only have one scroll chuck.

Here is the lid once I had hollowed it out, with the recess almost the right size to fit on the shoulder of the base.

Some more sanding, and bringing the recess diameter to *just* the right size, and I de-chucked it again to put the base back on so I could use it as a jam chuck to remove the tenon on the lid.

The lid fitted very nicely so that I could cut the two pieces together and cut away the tenon to give a little peak for mounting a knob. This photo does show the two pieces together honestly. The join does look pretty good doesn't it? Have you heard about pride and falls taking turns? Coming soon.

Here I am drilling out a 10 mm hole for the knob.

I finished the outside with friction polish.

Once done this had to be de-chucked, and taken apart. Not so easy!

To take it apart, my well-fitting shoulder was very well-fitting, probably glued together with the shellac, and I could not get a purchase on the smooth surface. I had to use a sharp chisel to prise them apart, very carefully. Oh well!

Here is the knob with a 10 mm tenon to fit in the hole, and the pestle that I cut out of the same piece of chair leg that I thought matched the pear pretty well. The pestle has some sunflower oil on it to show the grain. A few more coats will be its finish.

All seemed to be going well.

The design in mind was to drill a 30 mm hole in the lid to the side of the knob so that the pestle could be contained by the lid in the mortar, a neat package. This requires a suitably shaped piece of scrap to be put under the lid, on a slight slope on the drill press, so that a Forstner bit could drill the hole. This was where it all went pear-shaped.

Retrieving the pieces of the lid from the mess on the floor confirmed that this was an ex-lid. I did not take a picture.

Just a bit daunted, out to the log pile, I found a piece of branch of suitable diameter, mounted it between centres, roughed it down, cut a tenon on the end and sliced a piece off to make another lid. This I mounted in the scroll chuck and proceeded to make it look just like the other one had before its incident. Time for dinner.

Overnight I had an idea. The knob and hole for the pestle had worked fine for me on the previous effort already mentioned, but because this one was working out to be a smaller diameter, 4 inches instead of 5, clearly there was not room. The idea was not to have the knob, and to drill a hole for the pestle in the centre where the knob would have been. Thus the end of the pestle would become the knob!

I mounted the lid back on the base just as before (thank goodness I had not taken the tenon off the base yet), shaped the side of the lid so that I would have a better chance of parting them later, cut away the tenon, and drilled a 30 mm hole on the lathe just as I had cut a 10 mm hole earlier. I used a scraper to sort it out and make the hole a bit bigger for the pestle. I am sorry for the lack of photos of this but I was in recovery mode. Here it is, done, with a magnificent hole.

This picture shows the base mounted on a jam-chuck so that I could cut away the mounting tenon. You might notice the duct tape holding it securely. This needs to be very secure before you start sticking a chisel into the quickly spinning wood, or it will suddenly rip nastily and your lovingly crafted mortar will fly off around the room. I speak from experience.

Do work the tenon and base away carefully to try and get it dead flat. Use something straight to check. It is going to be a mortar, and you really want all the base to be touching the surface you are holding it on when you are crushing whatever it is you want to crush.

Sand and finish. I was using shellac friction polish on the outside of the base and the lid, but leaving the insides without so that I could finish them with sunflower oil later.

This was when I found the original pestle was too small for the magnificent hole I had made. Someone's measuring had gone wrong. On the log pile I found a narrower branch that might do. I cut it into three pieces. Once I had roughed all three to shape, I threw the first two away and the third piece was just about alright to use, not too much woodworm damage. Here I had another idea. Wow!

In order to use the pestle as a knob, it would need to have some sort of shoulder for the lid to rest on, so it would be best pear-shaped!

You will see this piece was holey as well at the left-hand end but I would not need that.

Here it is after some careful (for me) measuring to ensure the lid would fit around the correct place on the pear when stood in the base. I did it all between centres with a tiny link on each end which sanded away after cutting off.

Here are the final three pieces, the pear and the inside bowl sunflower-oiled, ready to go together. The end grain soaks the oil in very quickly - you can watch it vanishing – so just keep oiling it until it doesn't.

(The lid isn't glued or even stuck to the pestle by the way. It just fits well!)

So here we are. It is 4 inches in diameter, and 4 inches high with about an inch of pear pestle sticking out.

Here is the one I did first ->

This is the same height, but 5 inches in diameter.

You might notice a different colour. This is because I finished the first one completely in sunflower oil, and it brought the colour out nicely. I do prefer it myself.

Happy turning! And the best of luck!