

Easy Bowls Part 2

Introduction

This is Part 2 of a 2 part session about how we can successfully turn all those bits of green or wet wood that we acquire into bowls, dishes, platters etc. If we attempt to dry large chunks ourselves they will probably split. Commercial timber merchants convert hardwoods soon after felling, then either stack and season it outside for years or dry it in computerised kilns which monitor the temperature and humidity in a different way for each type of wood. Most of us don't have access to such fancy kit so we have to adopt another approach.

Part 1 and after

In Part 1, which was at our January meeting, we took a piece of wet spalted beech and turned a plate or shallow dish. I also showed you a shallow bowl that I had turned as a practise piece from the same wood. We weighed them and wrote the weight and date on the wood then I took them home and put them under the bench in the workshop. Every so often I re-weighed and dated them. When they were a constant weight under the bench I moved them to a higher and drier position in the workshop. This is how their weight changed :-

<u>Date</u>	<u>Bowl</u>	<u>Plate</u>
8 January	938g	
11 January		502g
17 January		496g
9 February	704g	386g
19 February	646g	366g
1 March	646g	364g
11 March	626g	354g
6 June	616g	352g

As wood dries it shrinks, BUT it does not shrink evenly all over, and the amount of shrinkage varies greatly between different types of wood. Wood shrinks very little along the grain but much more across the grain. This means that a round bowl made in the conventional way from a side grain blank will go oval as it dries. The bowl now measures 222mm along the grain and 217mm across the grain. When we rough-turned these items we reduced the thickness, we also removed the middle of the bowl. This means that there is much less wood to dry, less chance of stresses building up and the wood has more freedom to move instead of cracking.

If the wood has the sort of interesting grain patterns that we like then this is likely to cause problems as it dries, with more distortion than a straight grained piece.

Part 2

Using the same chuck and jaws as for the rough turning, re-mount the piece on the original spigot aligning jaw 1 with the pencil marks. If the base and spigot have distorted while drying try to mount the piece as evenly as possible. Tighten the chuck just enough to hold the piece firmly.

Using a bowl gouge, re-cut the rim so that it runs true, starting with light cuts. If the piece is very distorted, take a couple of light cuts from rim to base inside. On the base, inside the bowl, mark and cut a shallow recess to fit your chuck jaws. This only needs to be about 3mm (1/8") deep.

Reverse the piece onto the recess you have just cut; look at the rim that you re-cut to check that it is running true. If the bowl is deepish you may need to be creative in the way that you reach the mechanism to tighten your chuck. If you make a number of deep bowls you may want to invest in a set of long reach jaws for your chuck.

Now re-cut the whole of the outside, firstly to round, then to the final shape. If necessary, true up the base and carefully re-cut the spigot – don't make it too small to fit the chuck !! When you are happy with the shape, improve the surface by shear scraping. To shear scrape using a standard scraper set the tool rest about an inch away from the work, slightly below centre. Tip the scraper towards you so that the edge is at about 45 degrees to the wood and take a light cut, typically from base to rim on the outside of a bowl. The cut should produce fine shavings, not dust. Adjust the angles to get that perfect shaving – every piece of wood is different ! The new Tracy Owen finishing scrapers are made from round bar which makes them easy to manipulate on the tool rest. Shear scrape until you have removed all the gouge ripples and have no major areas of torn grain.

Then refine the surface with abrasive, working through the grits, say 120, 180, 240, 320 to 400 or finer depending on the type of wood and the item you are making. On face plate work, power sanding with the abrasive held on a Velcro faced pad in a drill gives the best results. BUT it makes LOTS of dust so protect your lungs. Obviously, the abrasive needs a furry back that will stick to the hooks on the pad. A cordless drill is lighter and more convenient than a mains drill and usually runs slower. Run the lathe at about 500rpm; use a light touch and keep the abrasive moving to avoid heat build up. Some woods are sensitive to heat cracks especially on the end grain – yew is a well known example. Depending on your choice of finishing product you may choose to give a coat of sanding sealer, let it dry and cut back with fine abrasive.

Reverse the piece again onto the re-cut spigot, and finish turn and complete the inside in the same way.

The final step is to remove the spigot so that we have a clean base without any clues as to how the item was made. There are a number of ways to achieve this mounting :-

hold the piece between a pad in the headstock and a revolving centre in the tailstock. The pad could be a faceplate with some foam or router mat or a wooden pad on a face plate ring held in the chuck jaws.

most chuck jaw ranges include a set of Cole jaws,

most chucks provide for the mounting of home made wood plate jaws,

Woodturning magazine Issue 212 April 2010 had a article on making a Longworth chuck, a vacuum chuck if you choose to spend the money.

However you hold the piece, carefully turn away the spigot, leaving a small nib to support the work if necessary. Shear scrape and sand the area of the base that you can reach. Decorate the base if you wish.

Off the lathe, remove any nib, sand the whole base, sign and date (or number) the piece, and seal. I always identify the type of wood as well which buyers really appreciate.

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