

## WSWC – Open Forum evening – 15<sup>th</sup> July 2014

The format of the evening is a bit different to our usual demonstration evenings, and different to how it was originally envisaged. I had originally thought that it would comprise of an 'expert panel' with questions being submitted in advance so that we could ensure we had appropriate expertise and some answers ready. From the initial questions received, it was clear that these would not be 'one line' answers. So this evolved into an evening of a couple of informal mini demos.

The initial topics we had received were 'Bowl Savers/Bowl Coring' and Finishing. Other topics have been Sharpening, Chuck systems and work holding, working with green timber/drying timber, and segmented work. These and any other requests will be for another evening.

### **Bowl Coring**

JW explained that a parting tool can be used to core a bowl.

A variation on bowl saving is to use the parting tool to slice through a relatively thin blank at an angle approx.  $2/3^{\text{rds}}$  the finished diameter on the front to approx.  $1/3^{\text{rd}}$  the finished diameter on the back. These two pieces are then glued together stacked to effectively double the original thickness. The blank needs to be faced off absolutely flat on both sides before you start to slice through.

You can use a parting tool to slice into the blank at an angle creating a crude bowl shape hollow and a cone which becomes the second blank. Taking care to not to go through the bottom, making sure you allow for the chuck mounting.

Andy Coates used this method when he demonstrated for us in 2011. He used the parting tool to extract the core from a small pot to use the inverted core to make a lid.

The Stewart Slicer is effectively an enhanced heavy duty parting tool. Robert Sorby also produced a version of the Stewart Slicer with an arm brace 'handle'. An example of this was passed around.

Next the Kel McNaughton (Kelton) system was shown, This uses curved blades (a bit like a heavy duty, curved parting tool) used in a bespoke tool post with guide pins to 'steer' the blade into the bowl blank. There are different blades and guide pin positions for different size cores. Blades of different curvatures are used for different depths. Different blades were shown against a template to show the different cutting profiles. It was also explained that these could also be used at a more acute angle to core a vase form.

The version shown was the 'Standard' set. Kelton also produce a 'Micro' set, a 'Small' set, and a 'Large' set.

Next the Woodcut system was shown. The Woodcut system uses curved blades mounted on a quadrant which is pivoted into the bowl blank. A plate underneath the quadrant supports the blade as it progresses into the cut. The Woodcut only has two blades, but by careful positioning you can get some slight variations of the hemisphere cut. The Woodcut has quite an aggressive cut. The tips of the Kelton and Woodcut were compared. The Kelton has a diamond shaped tip, whereas the Woodcut has a square tip. With both tools, you need to ease off periodically to clear swarf and stop the blade binding.

The Oneway system uses a curved blade which is pivoted into the bowl blank (similar to the Woodcut) but is supported on a matching curved tool rest.

These coring systems take quite an aggressive cut, so you need a reasonably substantial lathe with a fairly powerful motor.

## Demonstration of the Woodcut bowl coring system being used – Shaun Clifford

Shaun's chainsaw had a major failure (broken crankshaft) so we had to use bowl blanks that were a bit small for effective coring. Shaun chose a well-seasoned Oak bowl blank to core, as this was the thickest blank that we had. It is essential to prepare chucking points on both sides of the blank. Once you have cut out the core you need to be able to remount it to prepare to core it again, or to make a second bowl. Shaun prepared the chucking points on the Oak blank and roughly shaped the outside of the first bowl. The Woodcut system was then used to core the bowl. Being well-seasoned Oak, this was VERY hard and dry. Part way through the coring process, the spigot on the blank sheared.



Shaun then chose a slightly shallower sycamore blank. Prepared the chucking points, and shaped the outside of the larger bowl. This was the 'cored', with the core being just about big enough to make a large brooch or a very small dish.



Shaun stated that he doesn't use bowl savers, but then as a former tree surgeon he doesn't pay a lot for his wood.

If the blanks are highly figured, expensive, exotic, etc. then a bowl saver can be worthwhile. On a small item, a parting tool can be used to recover some usable timber. To those of us who pay good money for their timber, lesser pieces may be worthy of salvaging the core. Offset against that is the cost of a proprietary tool – both the Woodcut and the Kel McNaughton systems cost in the region of £250.00

## Finishes and Finishing

Mike Charnley then explained about Finishes and Finishing. When making your final cuts, be careful not to 'bruise' the wood. This may be due to pressure exerted by the bevel resulting in a 'rub' mark that goes below the surface. This cannot be easily removed by abrading. Applying a finish on this will result in a darker streak appearing.

On soft grain timbers, or those that have soft areas (such as Spalted Beech) there can be a tendency to get 'torn' grain where fibres lift which do not respond well to abrading. Sometimes this can be removed by 'reverse sanding' (switching the lathe to turn in the opposite direction – anti-clockwise instead of clockwise (looking at the spindle)). Use this method with care as the chuck could come undone. Another method could be to apply 'Superglue' or Sanding Sealer to the soft fibre area to harden the torn fibres. These can then be abraded. It may require several of these treatments before getting a good finish.

## Abrasives

Mike explained the different abrasive grits. You start abrading with the coarser grits working through the grits to the fine/very fine. Depending on the quality of the finish from the tools and the material determines which grit you start with. Typically he would start with 120g or 180g. Sometimes it may be necessary to start with 80g. Then working through to typically 400g/600g, depending on the material and finish required. On pens, you may want to work through to maybe 1200g or more.

Mike had examples of Abranet Micromesh - an open weave abrasive sheet. With this open weave it is not meant to clog as much as other abrasives, but it is more expensive than other brands.

Mike then had a selection of Indasa Rhynosoft abrasives. Simon Hope sells this abrasive. Mike had seen someone have the range of these grits stapled together in grit order so that you did not need to search for the different grits, they were all there ready to use in the order that you would use them.

Both the Abranet and the Rhynosoft abrasives are cloth backed, so you can use these on 'Velcro' pads.

Beyond the range of grits available from sheet abrasives, you can use wire-wool or NyWeb (similar to nylon scouring pads). These are also available in different grades, through to a non-abrasive NyWeb used for applying finishing products.

It was highlighted, the safety factors required in using, storing and disposing of these products. Wire-wool in particular is highly flammable. Keep wire-wool away from grinding areas as sparks may cause it to ignite. With cloths, NyWeb and wire-wool used for applying finishing products, DO NOT scrunch them up and throw them in the bin. Open them up so that and finishes/oils/solvents can dry before throwing them away. Once dry, used cloths etc. can be stored in an air-tight container.

Mike then went on to explain different finishing products. The finish must be suitable for the intended use. Has it got to be food safe? Could leave as bare wood, or treat with a food safe oil.

Will it be regularly handled? A wax finish can deteriorate by frequently touched, but is easily revivable by buffing or re-applying more wax. A hard finish will maintain its appearance better and just requires buffing to remove fingerprints. Lacquers will provide a hard finish, but if damaged can be more difficult than waxes or oils to repair.

### **Lacquers**

Acrylic Lacquer is available in matt, satin or gloss finish. Chestnut produce a product for woodturners, but you can get acrylic lacquer much cheaper from car accessory shops.

Melamine lacquer provides a hard wearing gloss finish. If you want to burnish it, leave it to thoroughly dry and harden before applying a burnishing cream. With burnishing, Melamine can produce a really high gloss finish.

Ebonising lacquer is essentially black aerosol paint (again, this can be purchased from car accessory shops).

Ian Cotgrove mentioned that he had heard that storing aerosol cans upside-down reduces the chance of nozzles getting clogged up. He has tried this and it seems to work.

Mike has used black acrylic artists paint (from a tube) on items, and then carved through it to create a nice relief effect. Another type of paint that Mike has used are the Jo Sonja Iridescent paints. This paint gives an interesting multi-coloured effect.

**Stains** – spirit stains can be used to alter the colour of wood. Staining can be used just to enhance the natural colour, or to totally change it. On timber such as Yew where the heartwood and sapwood colours are quite distinct the effect of staining on them will be very different. Some people like the effect that colouring can create, and some totally dislike it.

**Oils** – Tung oil, finishing oil, Danish oil, vegetable oils, lemon oil, food-safe oil

Some oil brands containing Tung oil (Danish and Finishing oils) can remain tacky until fully cured.

Building up several coats of finishing oil can be used to create a high gloss. Rub down with wire-wool between each coat to achieve a good finish.

Vegetable oils (Sunflower, Rapeseed – though they can go rancid sometimes) can be used if a food-safe finish is required.

**Waxes** – Various types of wax are used for finishing. Primarily Beeswax a relatively soft wax, Carnauba, a hard wax. These are available in 'Stick' form to apply direct to wood. Various combinations of beeswax and carnauba wax, blended with oils and/or solvents are also used by manufacturers to create different workable solutions.

Mick Hanbury wax (a soft beeswax & liquid paraffin combination), Chestnut Hard Wax oil (an oil and wax combination). Chestnut WoodWax22, a blend of beeswax and carnauba wax.

Shoe polish can also be used as a coloured wax.

Coloured Gilt creams, used to highlight grain or textured effects are also wax based.

Once a finish has been applied, a buffing system can be used to polish it. Use a different buffing wheel for each finish.

**Sanding Sealer** – used to prepare the surface for other finishing products. Also be used to 'harden' grain for sanding.

**'Superglue' finish** – Creates a very durable hard finish. Used by some pen makers as a finish. Applied on a 'cloth' and buffed up in one motion. It can only be used on very small diameters as it dries very quickly.

**Friction Polish** – A shellac based finish (similar to French Polishing). Similar to the 'superglue' finish in that it can only be used on relatively small diameter pieces (typically up to about 6 inch (150mm) diameter) as it dries quite quickly.



At the end of this demo/presentation JW requested feedback from members on how they thought the evening went. This format has not been seen anywhere else so comments and suggestions are welcomed. Please let JW know what you thought. John's email address is: [2johnwoods@gmail.com](mailto:2johnwoods@gmail.com)