

July 2015 Meeting - "Sharpening and Pyrography"

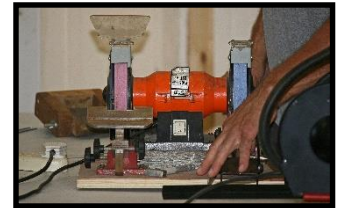
John Woods introduced the evening by saying that it would be in two parts, sharpening before we had coffee and pyrography after.



Sharpening

John started with a short introduction on safety stating that you should always wear appropriate clothing and footwear, wear goggles, facemask or safety spectacles. You should also use guards on all grinding devices. Another area to look out for is that the sparks generated when "dry" grinding can set fire to shavings or any wire wool left lying about.

A short history of grinding jigs followed starting with the wooden one published in Keith Rowley's book "Woodturning—A Foundation Course" first published in 1990 by The Guild of Master Craftsmen Publications. This was followed by an improved version by O'Donnell and a variant made by Robert Sorby. The Ellsworth jig and One Way's Wolverine jig soon followed. Hamlet also introduced a sharpening jig. Tormek's Wet grind system followed and now we are seeing similar systems from other manufacturers. Sorby's have also introduced the ProEdge belt system.



John went on to discuss the different types of grinding wheels available.

Grey—made from carborundum and tools heat up quickly on these.

White—Aluminium oxide—softer wheel

Pink—Variant of Aluminium oxide blended with chromium oxide

Blue—microcrystalline wheels produced by new ceramic technology to give a finer finish

Gold—Cubic boron nitride (CBN) cool cutting designed for modern high speed steels

Silver/Steel coloured—diamond bonded to metal substrate (expensive)

White wet wheel on Tormek style grinders.

All of the wheels need dressing except the CBN wheel. Dressing is needed to ensure the wheel surface is true and square and also to reveal a fresh surface for the best possible grinding. The dressing tools invariably have a diamond coating.



Mike Charnley then took over to demonstrate some of the jigs. The advantage of a jig is the reproducibility of the grind. To refresh the edge on a tool is a quick process and does not require removal of a lot of metal, so if the jig is set up it is quick and easy.

For his gouges Mike has decided to grind them all at the same angle i.e. his spindle gouge has the same bevel angle as his bowl gouge which means that he does not have to keep changing his set up.

To make life easier when sharpening roughing gouges and skew chisels he has made a template from bent aluminium. This has the corners ground to the correct angle so he can set the angle of the platform to the wheel quickly.

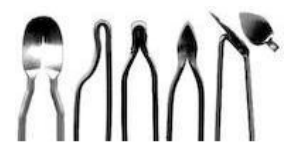
In general, most of the grinds are between 30° and 60° with skew chisels at about 15°.

There were various set ups to see, Ian Cameron brought in a Creusen grinder with the Woodcut jig, Rosie Keeble brought in her Sorby ProEdge system. Mike Charnley displayed a Tormek grinder and a Creusen with a Tilgear platform and the Hegner brand Tormek style adapter for dry grinders. John Woods brought in two other grinders, one fitted with white and CBN wheel and the other with pink and blue wheels. He also brought in a Wolverine jig (Craft Supplies copy) and a Sorby jig.

Pyrography

John Woods introduced this section by stating that the art of pyrography began with the use of heated irons to burn designs into wood. The Victorians called this "pokerwork". It was with the use of electrically heated irons that the art really took off. There are two main types of machines available—solid tip (similar to soldering irons) and resistance wire. In America they have gone mainly for the replaceable pen approach while in the UK the replaceable wire is favoured.

By using various thickness Nichrome wires you can make your own nibs. The thicker grade wire can be flattened with a hammer and suitable anvil and then filed to any shape. The photo shows a few commercially available nibs.



John handed over to Tic Challis at this point for her to explain how she does her work and to answer questions.

Tic explained that once the piece has been turned and sanded she applies sealer. This because pencil marks can be difficult to rub out on unsealed wood. She uses soft pencils (B rated) to draw her designs. An alternative is to use something like "Saran" transfer paper which is graphite coated on one side.

When she starts to burn the wood she uses very light strokes at first and repeats to darken them. When she has finished she uses a melamine lacquer to protect the design. Tic also stated that pyrography designs will fade over time.



There were many questions throughout the evening and most found something of interest to think about.

Thank you to all who provided equipment and to John, Mike and Tic for their hard work.