Martock and District Woodturners
Newsletter

January 2024

News

First of all, a Happy New Year to everyone. I hope you had an enjoyable Christmas and have been working-off your seasonal excesses in your workshop.

January is AGM month when once again we elect the committee for the coming year. We are always on the look-out for new committee members, so why not give it a go? We only meet six times a year so it is not a big commitment. No experience (or woodturning proficiency!) is necessary and you would bring a fresh perspective on how the club should best serve its members. Even if you have previously served on the committee you would still be welcome!

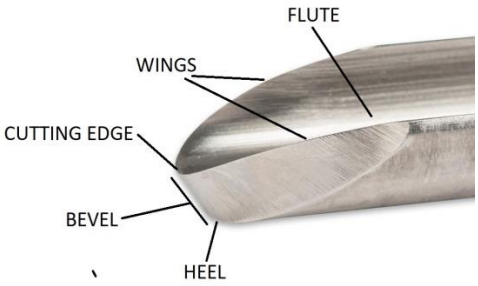
Diary Dates

January 30th	Club night – **AGM** – 7pm, Ash Pavilion
February 10th	Hands-on – 10am, Yandles Training Room
February 27th	Club night – 7pm, Ash Pavilion – Jason Breach
March 9th	Hands-on – 10am, Yandles Training Room

Beginner's Techniques – The Bevel

What is the Bevel?

The bevel is simply the part of the tool immediately behind the cutting edge, as shown on this picture of a bowl gouge.
A skew chisel and some parting tools have two bevels, one on the top and one on the bottom.



How is it used?

For gouges and chisels (not scrapers) the bevel is mainly used to control the depth of the cut. This is not something unique to turning tools – we use the bevel on all hand-held slicing tools such as carving tools, chisels and knives to help control the cut. We are all quite used to adjusting the angle of the blade to get the correct cut when sharpening a pencil with a penknife; if you actually analyse it, what we are doing is to use the bevel (the area immediately behind the cutting edge) as you would on a lathe tool.

So why do a lot of beginners find it difficult? I believe there are two main reasons:

1. It is possible to shapen a pencil by scraping the penknife across it, but it is hard work so we don't do it. The power of the lathe means that it is easy to cut timber by scraping with the tip of the gouge without rubbing the bevel, so beginners are not aware that they are not doing it correctly.
2. When we use knives and chisels we position the workpiece so that the tool can be used directly in front of the

body. On a lathe the workpiece is held in a fixed position (which can be a right angles to the direction of cut) so to use the bevel correctly we have to instead move the tool and our body into the correct position, which is not as intuitive as it seems!

What is "Riding the Bevel"?

Beginners are often told that they should be riding the bevel, or rubbing the bevel, but what does that mean and how is it achieved? Essentially riding the bevel is using the bevel of the tool to create smooth, controlled cuts. It begins with three simple actions:

A. **A**nchor the tool on the toolrest; the tool should always be held in contact with the toolrest.

B. Let the **B**evel contact the wood, without the cutting edge coming in contact with the timber.

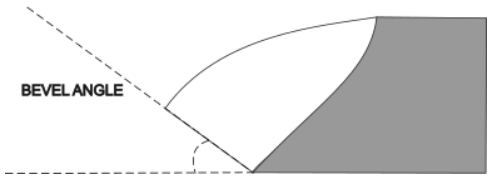
C. Begin the **C**ut, by lifting the tool handle to bring the cutting edge in contact with the timber without losing the bevel support.

The challenge comes with keeping control when cutting a curved surface such as the inside or outside of a bowl. This actually requires a complex sequence of moves that involves lifting and swinging the tool handle whilst rotating the tool at the same time being constantly in tune with the cutting edge, bevel location, tool angle, cutting depth and applied pressure. All this only comes with practice, which is why experienced turners make it look so easy.

Two things can start to happen during the cut:

1. You simply rub the bevel and lose the cut. At this point it is necessary to adjust the tool angle and pick up the cut again starting a bit back from where the cut was lost to avoid leaving a ridge.
2. Bevel contact is lost and you continue to cut without it. At this point the tool is unguided and the cut starts to become difficult to control, usually resulting in a series of ridge and furrows. It can sometimes be difficult to spot when this is happening, making you think it is about ability rather than technique.

What is the Bevel Angle?



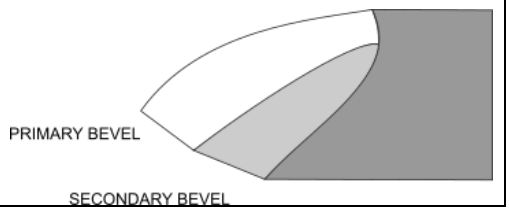
The bevel angle is the angle between the bevel and the length of the tool.

For a "traditional" gouge this was always 45°, but most people prefer somewhere in the range 50° to 60°.

The answer to the question "what is the best bevel angle", there is no right answer. We each have our personal preferences for out "go-to" tools and changing this angle will impact the way we need to stand at the lathe and how we move the tool.

There are cases where more extreme bevel angles are useful – a spindle gouge with a shallow grind can get into deep "v" cuts and a bowl gouge with a steep grind can cut the bottom of a deep bowl without catching the edge of the bowl.

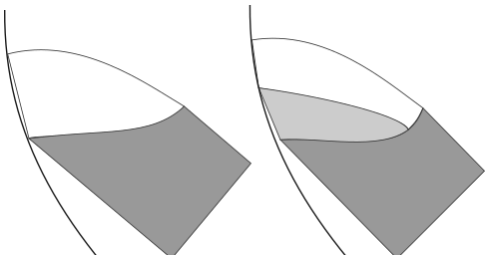
What is a Secondary Bevel?



A secondary bevel is sometime ground on a gouge by removing part of the heel.

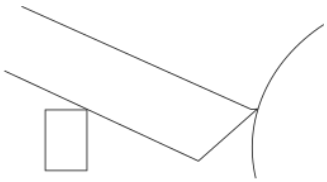
This has no impact on the way the gouge is used with the primary bevel controlling the cut.

It can however help produce a better cut on the inside of a bowl, as can be seen here. Without the secondary bevel, the heel rubs against the concave surface, which can leave marks and make the cut more difficult to control.

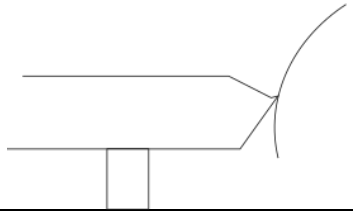


Scrapers

Scrapers are not designed to cut with bevel support. The cutting edge consists of a small burr formed on the top edge during sharpening. When using a conventional scraper it should always be angled downwards as shown here.



A “negative rake” scraper has a bevel ground on the top edge, essentially incorporating the downwards angle into the tool. These are much more forgiving than a conventional scraper and can be used flat on the toolrest.



A number of club members have already booked up to attend the Chestnut Woodturning Weekender next year. The cost is only £45 pounds (plus travel and accommodation – the intention is to travel by train from Yeovil Pen Mill). This is a fun, relaxing weekend features four full-length demonstrations (the demonstrators will be Chris Parker, Andrew Hall, Mary Ashton and Gary Rance), as well as a Saturday evening two-course barbecue with bar & surprise entertainment, clinics & smaller demonstrations and trade stands. It is also an ideal opportunity to get to know some of your fellow club members better. If you think you might be interested in joining them, have word with Dave P to find out more.

Timber of the Month - Hornbeam

According to Wikipedia there are about 40 species of hornbeam growing in the temperate regions of the Northern Hemisphere, mostly in Europe and the Far East, with one species native to America. European hornbeam (*Carpinus betulus*) occurs from Sweden, south to Asia Minor, with trees of commercial size found mostly in France, Turkey and Iran.

The name allegedly derives from *horn* because of its hardness and *beam* (Old English for tree) – it is in fact more resistant to breaking than oak. It can grow to a height of 25m (80ft) and generally has an elliptical trunk which can reach 1.2m (4ft) in diameter. In the UK it is often found as a hedgerow tree, although it is common in the ancient woodlands of Essex, Kent and Hertfordshire and is the dominant species in Epping Forest. It was often coppiced or pollarded.

The timber is a dull white colour with no distinction between sapwood and heartwood. It has an incredible resistance to repeated blows, making it suitable for mallets, drumsticks, butchers blocks and skittles. Its hardness found use in wooden cog-wheels, pulleys and millwright's work. It was also used to make parts of musical instruments such as piano actions, violin bridges and in harpsichords and clavichords. It is long-burning and makes excellent firewood.

During the Thirty Years' War, hornbeam was planted as defensive hedges in Central Europe. The bushes were chopped down with axes and broken up. The trees would then grow together with blackberries, dog roses, and other thorny bushes to form impenetrable hedges.

If you have anything you would like to share through this newsletter, or have any ideas of what you would like to see included, please let me know by emailing me at mailto:newsletter@madturners.co.uk.

Thanks, Dave H