February Meeting - Peter Nichols

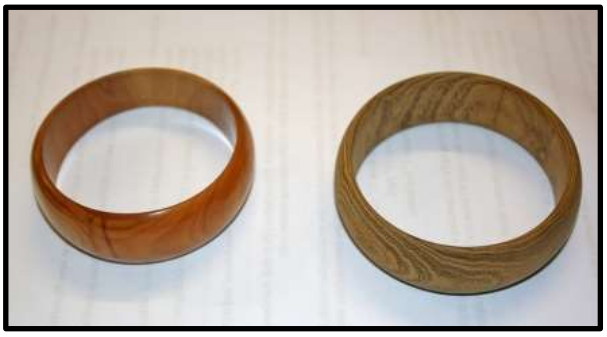
Peter chose to demonstrate making a Nut Cracker from a Banksia Nut. He removed both ends from the Banksia and mounted it between centres on the lathe.

With a roughing gouge he roughed it to a cylinder about 60mm diameter and then used a beading/parting tool as a skew chisel to get a finer finish. And using the same tool he made a spigot on one end to fit the chuck jaws.
He removed the cylinder from the lathe and mounted it onto a specially constructed cradle which had been fixed to a faceplate. The cradle consisted of two V shaped supports screwed to a board and two adjustable straps to hold the cylinder in place. The whole assembly was mounted onto the lathe. The position of the Banksia cylinder was adjusted so that the side with the most seeds visible was facing the tailstock. A 48mm diameter Forstner bit was mounted in a Jacobs Chuck in the tailstock. A hole was drilled into the side of the cylinder being careful not to drill through completely.

The cylinder was removed from the cradle and replaced into the chuck in the normal way. A 16mm diameter drill bit in the Jacobs chuck was used to drill a hole through to meet the previously drilled 48mm diameter hole at right angles. A ¾"imperial tapered tap was used, lubricated with wax, to start cutting a thread in the previously drilled 16mm hole. This was followed by a parallel tap, again lubricated to complete the thread. Once the thread had been cut the length of the nutcracker was determined by partially parting off near the chuck. The end containing the threaded hole was shaped as shown in the photo.

A length of square section Sapele was held in the chuck and roughed to a ¾" diameter cylinder. This was liberally coated with wax as lubrication and a thread cut using a ¾" thread box. It is important to ensure the thread is cut square. Check the fit in the previously made threaded hole and if tight recut the thread. Next Peter cut a 10mm diameter spigot on the end of the threaded Sapele piece and glued on a slice of Banksia which he had prepared earlier. This piece of nut was then turned to shape to form the handle of the nutcracker.

Peter finishes the pieces with a lacquer spray. The end result is shown in the photo.



The next item Peter chose to show was a Bangle made from Laburnum. A Laburnum blank with a spigot previously prepared was mounted in the chuck and roughed to a cylinder.

Peter had carried out an exercise at his school to determine the best size for a young person's wrist and found that 65mm diameter hole was appropriate. With callipers set to allow for the thickness of the bangle (e.g. for wall thickness of 5mm set the calliper to 75mm) and carefully scribe the diameter on the end of the blank. A 65mm diameter Forstner bit was mounted in the Jacobs chuck and a parallel sided hole drilled into the blank.

Next he reduced the thickness of the wall to line marked earlier and then defined the width of bangle by cutting in with a parting tool. He marked the centre line of the bangle and then proceeded to shape the wall to a domed shape symmetrical about the centre line. The inside and outside was then abraded and the bangle parted off. He then mounted the bangle on the chuck by expanding the jaws carefully into the finished end. He then carefully cleaned up the parted off end and abraded to a finish. He then applied sanding sealer and finished with an acrylic lacquer.

A variation was shown by Peter using a chuck he had made involving tapered discs so that he could convert a parallel sided bangle into one that is narrower on one side than the other.