

Snainton Woodturners' Club Newsletter

Issue

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Meeting held at the Snainton Woodworking Supplies, Barkers Lane, Snainton, North Yorkshire YO13 9BG

Pole Lathe Turning

by Jim Wood
assisted by Trevor Harland



Snainton Woodturners' Club

Meeting at
Snainton Woodworking Supplies
on Thursday
3 February 2011

Snainton Woodturners' Club

Meets at 1930 hr at Snainton
Woodworking Supplies on the
first Thursday of each Month:

--- **Next Meeting** ---

**3 March 2011. Mick Hanbury
Decorative Work with
Spalting**

7 April 2011. Keith Brevitt - ?

5 May 2011. Bob Chapman -
Singapore Ball

2 June 2011. Ian Clarkson -
From Log to Bowl

7 July 2011. Sue Harker -
Something Different

4 August 2011. Club AGM &
Bring-and-Tell

1 September 2011.
Joey Richardson - Colouring,
Texturing, Air Brushing, Piercing
& Design

6 October 2011.
Margaret Garrard - Off-centre
Textured Bowl with Involved
Flowers

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Background

Jim W Wood demonstrates pole-lathe turning and his business, based in Hale Garth, Alne, deals in Vintage Tools, Spares and Bygones. Many of his demonstrations of pole-lathe turning are to school-age youngsters to encourage them in the craft of woodturning.

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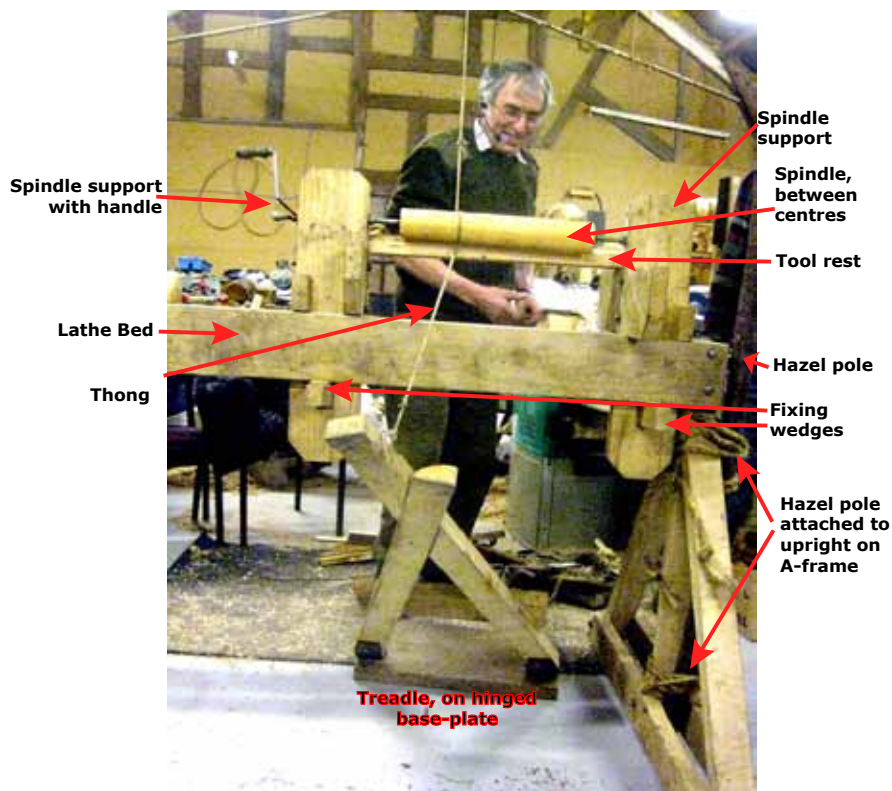
Preparing the spindle

Jim had taken a suitable trunk and cleft it, as would have done the greenwood pole-lathe turners of old. These people, called *bodgers*, would then use a draw-shave blade on a shave horse to rough the spindle to round. Jim saved time by using an electric lathe!

Pole Lathe Set-up

In somewhat of a rush, as they had been delayed on the way to Snainton, Jim and Trevor Harland brought in and set up the pole lathe bed, made of strong ash planks.

Two strong A-frame shaped supporting legs (5 x 10 cm; 2 x 4 in) were joined by two strong horizontal bed-beams (15 x 10 cm; 6 x 4 in) held to



the vertical strut of the legs by four long M12 bolts.

Two hazel poles (about four-metres long) were strapped securely to the vertical members of the A-frame legs; the lower ends of the poles were inserted into the gap between the two beams of the legs that rested horizontally on the floor (*see above*).



The spindle supports comprised two boards slotted between the two horizontal bed-beams of the lathe (*see left, previous column*). Bolted to the spindle-support boards were two horizontal pieces of wood on either edge that held the boards vertical between the two horizontal bed-boards. Below the level of the horizontal bed-board planks, a square hole had been cut

in the vertical spindle-supports into which a wood wedge was fitted to hold the spindle-supports firmly in place.

A roughly rounded spindle of wood was mounted between centres – two threaded, metal rods with pointed ends, held to the spindle-support boards with a bolt on either side of the support. One rod had a handle attached to the end, by which the rod could be screwed in to hold the spindle tight between the centres.

A square wooden batten was tied horizontally to the protruding stops at the side of each spindle support to act as a tool rest, at an appropriate distance from the wood to be turned.

Between the top ends of the two hazel poles, a leather thong (a boot-lace) was tied horizontally. Tied to the centre of the horizontal thong, and dangling vertically, was another long leather thong that was longer than the distance to the floor, to provide enough length to tie to the treadle.

The thong was wrapped for one turn round the spindle to be turned, with the vertical strands of the loop being on the same side of the spindle as the operator. The lower end of the vertical thong was then wound round

and tied to the protruding end of an A-shaped treadle-frame whose base was fixed by two hinges to a flat board. When the treadle is pressed down (with a travel of up to some 45 cm, 18 in), the spindle should make more than one full rotation, otherwise the turning will not produce a cut all the way round the spindle!

Making a Pole Lathe

The following can be referenced for more information about making a pole lathe:

<http://www.bodgers.org.uk/index.php>, and the detailed plans for a lathe in <http://www.bodgers.org.uk/plans-menu/58-bodgers-plans>. <http://www.dchopkins.co.uk/wood/index2.htm>, gives details for a pole lathe and includes a mandrel needed for turning bowls. An Australian version of a lathe using a single, angled pole is described in http://www.mark-ju.net/more/lathe/how_to_build.htm. Jim said that plans for his rig were obtained from a book on making greenstick furniture.

Note: This arrangement was shown in ancient Egyptian pictorial representations. It is a simple example of how vertical motion can be translated into rotational movement, which is an easily remembered demonstration for youngsters.

Turning

To make it easier to operate, Jim turned a cove at one end of the spindle, into which the thong would run when the treadle was correctly positioned underneath the lathe bed.

Jim first demonstrated how to use the lathe. The method requires good co-ordination: pressing down on the treadle with one foot turns the top of the spindle towards the operator, when the cutting edge of the gouge or chisel can be pushed gently against the wood to make a cut.

Releasing pressure on the treadle allows the hazel poles to flex outwards and pull the thong up, which

rotates the spindle in the opposite direction. When this happens, the gouge or chisel must be lifted slightly to clear the work.

The next cut is then made when the treadle is pressed downwards again. Turning on a pole lathe is thus slower than on an electrically powered lathe! The tools are used in the same way they would be on an electric lathe: spindle gouges, and round-nosed, skew or flat chisels. A good bevel-rubbing technique is capable of giving a fine, smooth finish.



After a trial by Club members, Jim turned an egg. With care, a skew chisel was used to shape the top end, then shape and cut into the narrow end. He then parted-off the finished item: when nearly through, one hand held the chisel and the other was placed round the rotating spindle, between the chisel and the cord-drive, ready to catch it when the wood had been cut through.

Note: We were told that expert pole-lathe turners of old were able to turn 632 egg cups in a 12 hour shift!

Wood

Hardwood can be turned, but it is more difficult on a pole lathe: green wood is softer and self-lubricating. Bodgers assemble chairs using still-damp wood, so that when the wood dries out the joints are forced together as the wood deforms slightly.

The Lailey Pole Lathe



Jim told us that, during World War II, a Government contract was issued to a pole-lathe turner, the late George Lailey, said to have been England's last traditional bowl turner.

He produced wooden bowls out of elm for use in measuring out gunpowder for naval munitions: a non-sparking, static-free solution.

The Museum of English Rural Life at Reading University contains many Lailey items. Together these artefacts tell the story of an ordinary Berkshire man whose work came to have a profound impact on early twentieth century craft.

Wooden bowls were the standard eating vessel across Europe from about 500 AD to 1600 AD. When Lailey passed away the rich international scope of this ancient technology died with him.

A replica of his lathe made by a contemporary artisan, Robin Wood, has helped to revive Lailey's techniques, assisting in the reintroduction of bowl turning on a pole lathe to numerous countries across the globe.

See:

<http://www.reading.ac.uk/merl/research/merl-historyoftheworld.aspx>

The artefacts in this display include an incomplete bowl sitting on the lathe, which Lailey is said to have been working on around the time of his death in 1958.

Trial by Members

John Whiteley was the first to try out the pole lathe, and he turned a cove or two. John had recently completed a monkey-puzzle bowl with attractive circular brown bough-colourings in a yellow surround that he brought to show the



meeting. The soft centre in the base had been filled with metallised resin to complete this spectacular bowl.



John Allred was quick to learn how to co-ordinate and make cuts with the gouge applied 'on-and-off' to the spindle.



Tony Langthorne initiated his trade-mark risqué jokes. (*Too much information about how you wake up, Tony! Ed.*) He showed us how much at home he felt with this equipment.



Lance Garrard took one look at the tools and rushed to sharpen them before he did some turning. The lathe displayed its displeasure by breaking the thong, which was then rejoined.



Wendy Greenwood demonstrated



that she is not a mere amateur turner, even though she was interrupted by the drive-thong breaking again!

Steve Etherington was unphased by trying out this method of turning, but after having had a go on this pole lathe, he says that he would hate to give up his beloved DVR!



Phil Greenwood (RPT) showed how a professional turner does it, making the task look all too easy.



Comment from the Floor

Steve Etherington felt that expanding our knowledge of the history of the turning craft could have added an interesting dimension. It is, after all, the forefather of the high tech kit we use today. Dedicated turners in the audience, as with the fascinated schoolchildren mentioned by

Jim, share the satisfaction and joy of producing something with our own hands – starting with a lump of wood and on very basic equipment.

This unusual event, peppered with the occasionally breaking drive-cord, well-used tools that required re-sharpening, etc, certainly had an element of charm and added to the entertainment.

Steve confesses that he did enjoy the evening, and he says, 'Let's hope that nothing which occurred will deter our Committee from occasionally trying "something different". The Committee is faced with a difficult task at times, and they should be congratulated on arranging such a varied Club programme. Variety is, after all, the spice of life.' [*Thanks Steve; several other members agree with your views on the programme! Ed.*]

Snainton Woodworking Supplies (SWS), Tel 01723 859545

<http://snaintonwoodworking.com>

New Products:

Henry Taylor: Decorating Elf and the tools to go with it, as featured in Woodturning magazine No.223.

Charnwood: a Velcro kit and sanding discs, 6 and 12 in.

Robert Sorby: ProEdge large and small Knife Sharpening Jigs.

Opening Hours:

Monday - Saturday 9 am-5 pm

Sunday **CLOSED**

Bank Holidays 10 am-1 pm

February New Offers and Products – available 24/7 from the On-Line Shop

Record Power Spring Show: 1000 to 1600 hr on Saturday 26 February 2011. Free Master classes, Show deals and woodturning demonstrations.

Photos, Copy & Newsletter Edited by Gordon Malan © 2011

Comments, copy, and suggestions or additions to the e-mail list to:

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Thanks to Brian Wrigglesworth (BW) for his DVD of the event, from which some images were captured, and to Stephen Fearnley for kindly arranging the printing of this newsletter