

Woodturning

THE WORLD'S LEADING MAGAZINE FOR WOODTURNERS

Updating an antique-style pillar design



PROJECTS Vortex vase • Pillar clock • Japanese rice bowls
Turned table • Carved platter **TECHNICAL** Quick chuck
tune-up • Easy painting techniques • Tool sharpening tips

Coronet Envoy and Regent

Heavy-Duty Cast Iron Electronic Variable Speed Lathes

Part of the exclusive range of Coronet lathes from Record Power, the Envoy and Regent are perfect for woodturners who regularly need the power, stability and capacities necessary for large-scale work



Winter 2020 promotional catalogue now available

Request your copy from the Record Power website

Prices valid until 28.02.2021. E&OE.

SPECIFICATIONS	ENVOY	REGENT
Max. bowl diameter:	1000 mm (39")	1000 mm (39")
Max. between centres:	610 mm (24")	610 mm (24")
Max. swing over bed:	410 mm (16")	460 mm (18")
Spindle speeds:	250-3800 rpm	250-3800 rpm
Motor input P1:	1.5 kW	2.0 kW
Motor output P2:	1.1 kW	1.5 kW
Thread:	M33 x 3.5	M33 x 3.5
Taper:	2 Morse taper	2 Morse taper
Weight:	140 kg	145 kg
Size:	W1435 x D540 x H1210 mm	W1475 x D540 x H1235 mm

Coronet Envoy Lathe, Tool Shelf and Magnetic LED Work Lamp Package

Only **£1599⁹⁵** Save **£110**
17001

Coronet Regent Lathe, Tool Shelf and Magnetic LED Work Lamp Package

Only **£1999⁹⁵** Save **£110**
18001

Both packages include:

Tool Shelf
Worth **£79.99**



Work Lamp
Worth **£29.99**



"Record Coronet Regent - the head of the Coronet family - great engineering, quality castings, power for turning large hats and my big blues bowls with confidence. A lot of lathe for the money."

Andrew Hall RPT, Professional Woodturner and Tutor

"This lathe does everything I could ever wish for and is also a rather elegant design with a nod towards the old Record Coronet machines."

Jim Overton, Well-Known YouTube Woodturner

Rotating and Sliding Headstock

Unlike many cast-bed lathes, the headstocks can be rotated 360°, optimising access and making them ideal for left-handed turners.

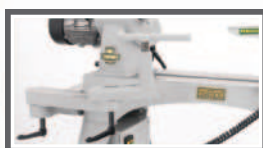
Repositionable Control Panel

The control panels can be placed anywhere on the lathes and are secured from the rear with a strong magnet. Ideal when turning large timbers which can limit access to the headstock-mounted fixed control panels found on many lathes.



Heavy-Duty Spindle Lock and Indexing

Holds the spindle securely and offers a full 24-point indexing function.



17500 Cast Iron Outrigger



17600 525 mm Cast Iron Bed Extension

OPTIONAL FITMENTS

17500	Cast Iron Outrigger	£139.99
17600	525 mm Cast Iron Bed Extension	£149.99
12401	4" / 102 mm Toolrest (1" / 25 mm Stem)	£16.99
12402	6" / 152 mm Toolrest (1" / 25 mm Stem)	£19.99
12403	8" / 203 mm Toolrest (1" / 25 mm Stem)	£22.99
12404	12" / 305 mm Toolrest (1" / 25 mm Stem)	£29.99



1000 mm bowl turning capacity
using the optional outrigger

RECORD POWER
ESTABLISHED 1909®

www.recordpower.co.uk Tel: 01246 571 020

Over
100
years
Experience • Knowledge
Support • Expertise

RECORD POWER
EST. 1909

STARTRITE

CORONET

CamVac

BURGESS

Incorporating some of the most famous brands in woodworking, Record Power's roots stretch back over 100 years.

novaTM

Smart Tools, Powerful Solutions

VOYAGER DVR 18" DRILL PRESS

*The world's
first smart
drill press*



**The NOVA Voyager DVR
18" Drill Press is the most
versatile drill press on
the market, easily able
to handle wood, metal,
plastics and glass.**

*"Exceptional quality; quiet operation;
easy to set up for every type of drill
imaginable; does everything you
could possibly want to do on a drill;
the only drill press you will ever need."*

- Jonathan Salisbury

RRP: £1,599.99 inc. VAT



For UK & Ireland, find your nearest stockist online

www.craft-supplies.co.uk



@craftsuppliesservice



service@craft-supplies.co.uk

Craft Supplies

BE INSPIRED, BE CREATIVE



Happy New Year and welcome to *Woodturning* in 2021. The year arrives with hope for a return to a more normal existence, which would signify the reopening of club meetings, demos and exhibitions. In the meantime, world-renowned turners Emiliano Achaval & Cindy Drozda share the opportunity that virtual demos gave the woodturning community last year. What are the advantages and are they here to stay?

We share a wide range of projects for all abilities, such as Steve Bischo's vortex vase (pictured above), which incorporates

deep, swirling carving; a Singapore ball from Richard Findley and a multi-axis vase from Les Symonds. Mike Stafford explores the designs for his Japanese-inspired rice bowl, and Ian Woodford recreates a beautiful pedestal clock. Look at the challenges of attaching angled legs to Jason Breach's slender table and the ripples of Andrew Potocnik's red cedar rectangle bowl.

Explore techniques with Part 3 of Marty Kaminsky's sharpening series and Stewart Furini's colouring series.

Give your chuck a five-minute tune-up and choose the perfect timber for your turning.

Finally, we showcase the best work of French woodturner Yann Marot after his solo online exhibition, *Around the Curve*, and Mark Baker's choice for the 2019 British Woodturner of the Year competition, amateur category, Nick Simpson, explains the concept behind his award-winning pieces.

As always, we love to hear from you and see your latest work, so please contact us at WTEditorial@thegmcgroup.com.

Happy turning.

PHOTOGRAPH BY STEVE BISCO



COVER IMAGE: Ian Woodford (see page 32)

Techniques

- 13 Sharpening woodturning tools**
Brian Kaminsky explains the sharpening bowl, spindle and detail gouges in part 3 of his series
- 53 Editor's Challenge—Singapore ball**
Richard Findley is challenged to turn a fascinating puzzle, known as a Singapore ball
- 80 Kurt's clinic**
Kurt Hertzog answers readers' questions
- 91 Quick chuck tune-up**
Mark F. Palma shows you how to tune up your chuck in five minutes
- 94 Reach for those brushes!**
Stewart Furini shows a few easy techniques for adding colour with paintbrushes

Projects

- 6 Small round table**
Jason Breach tackles a table with tricky offset brackets
- 19 Vortex vase**
Steve Bisco shows us how to set out and carve spirals on a turned vase
- 25 Queensland Red Cedar turned and carved bowl**
Andrew Potocnik creates an incredible rectangular platter using turning and carving
- 32 Pillar clock**
Ian Woodford brings an antique-style pillar clock design up to date
- 47 Sovereign balls – rediscovering the rediscovered**
Andy Coates continues his series on turning sovereign balls
- 65 Vase with multi-axis embellishment**
Les Symonds turns a two-part vase with a multi-axis embellishment, inspired by the work of Laugharne Pottery
- 86 Japanese-inspired bowls**
Mike Stafford turns a Japanese-style rice bowl and discusses the inspiration behind his work

Kit & tool

- 79** A collection of press releases and tests showing the latest tools and products on the market

Features

- 38 Ahead of the curve**
Provence-based turner Yann Marot shares how his work has become more and more creative over the years
- 74 Breakfast with the Alchemist**
Nick Simpson (aka Prof Bergensträuser) explains his British Woodturner of the Year 2019 winning piece
- 98 Interactive Remote Demonstrations (IRDs)**
Due to the worldwide Covid pandemic there has been an explosion in the IRD field. Is it here to stay? Emiliano Achaval discusses the pros and cons
- 104 Toxicities of woods**
Pete Moncrieff-Jury looks at the hazards of toxic timber

Community

- 3 Introduction**
Welcome to the latest issue of *Woodturning*
- 61 From the community**
We share a selection of readers' letters
- 73 Our contributors**
Meet our authors
- 85 Next issue**
Find out what's in store in the next issue

HEALTH AND SAFETY

Woodturning is an inherently dangerous pursuit. Readers should not attempt the procedures described herein without seeking training and information on the safe use of tools and machines. All readers should observe current safety legislation when turning and wear appropriate personal protective equipment (PPE) and respiratory protective equipment (RPE).



NEWS, LATEST PRODUCTS, MAGAZINE UPLOADS & EVENTS

can all be found on www.woodworkersinstitute.com. These all appear on the magazine homepage and you can see a bigger selection by scrolling down the page and clicking on the individual stories. We also have an extensive online archive for you to browse, or see us on Facebook & Twitter.



**To subscribe
please turn
to page 37**

6



32



65



86



25



Small round table

Jason Breach tackles a table with tricky offset brackets

When I was at college, in our business skills lectures we were told not to do jobs for friends or family, as they do not expect to pay. I have always been cautious, but yes, I have done many jobs for family members over the years, and about a year ago I was approached at work by a colleague who had a picture from a magazine of small round side table. Nothing fancy – three legs, copper pipe where the top joins the legs – and he asked if I could make something like it. Not too tricky to do, but I cannot do the copper pipe as this looked about 30-40mm diameter. We talked about this – a table with three legs about 600mm high, the top needs to look thin, the legs need to splay to create stability. I asked if the legs could come through, this was a no. Materials? Oak would be nice, and oh, can we have it for Christmas?

My major worry with this is the top and how the legs are going to connect and be strong enough to take the odd knock – the copper pipe in this picture was a joining bracket, which creates the strength. So, to create the required strength, could I make a wooden bracket that is positioned under the thin tabletop? I played around with the idea. The next problem was adding the splay to the legs – could the bracket be made to incorporate the angle required? Then I started to think about shaping the bracket so that the legs flow into the top – could the bracket be offset at an angle to create the splay of the legs? Turning one bracket is easy, but making three the same would be a little more challenging.

The material for this is English oak, quarter-sawn to make the top more stable and helping to keep it flat. With this being October, the air-dried boards were cut just over length and machined flat (not to thickness). They were then stacked with plywood sticks, G-clamped together and left to dry out.

Making the offset bracket is the tricky part of the table. The idea of making a carrier block works well with this, to work out the angle that the legs splayed out from the top.

On paper or sheet material, mark out the size of the top, find the halfway point and mark the position of where the legs will join. Use something as an upright with a mark for the overall height. This needs to be positioned on the outer edge of the tabletop. Tilt a board or roofer's square



PHOTOGRAPHS BY JASON BREACH

from the leg position to the mark of the upright, and measure the gap beneath. This allows a wedge to be cut to this size to test the angle. With this measured and checked, I cut a wedge that was 100mm square to match the size of the faceplate ring. The faceplate ring allows more access to the underside of the wedge, unlike a faceplate. The wooden wedge is screwed on to the faceplate ring, I also drilled a hole in the centre of the wedge to use with a dowel as a location pin, but this idea did

not work because adding the thickness of workpiece at the angle changes where the central location point is. To hold the disc without damaging, I chose to make a plywood jam chuck or carrier. The workpieces need to fit into this tightly – box-making skills are handy here. The depth of the recess in this carrier needs to be the same as routed into the tabletop, 8mm in this case. As a guide, I made the wedge 100mm square and the taper is with the drawing.

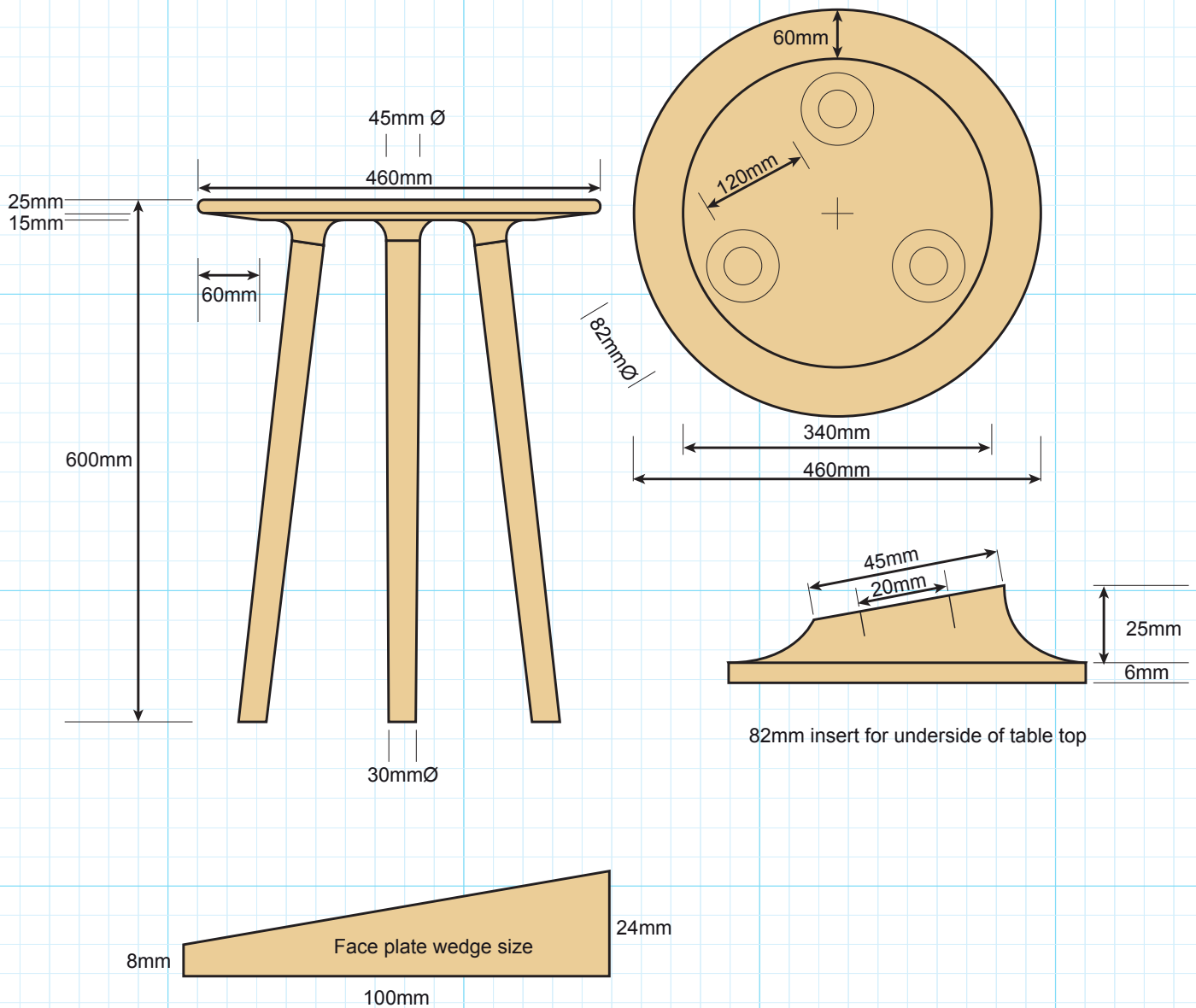
EQUIPMENT**Materials**

- Quarter-sawn oak for the top (this will be more stable)
- Two boards machined to make a round top of 460mm dia x 25mm thick
- 3 legs, 600mm long x 50mm square
- 3 insert disc, these are cut out of the offcuts from the corners from the top, 85mm dia x 25mm thick
- Test piece to help in making insert disc, 100 x 50mm square.
- Plywood template 250 x 140 x 12-15mm

- Plywood carrier 110mm dia c 18mm
- Wedge 100 x 100 x 30mm to cut into the wedge shape.

Tools and peripheral equipment

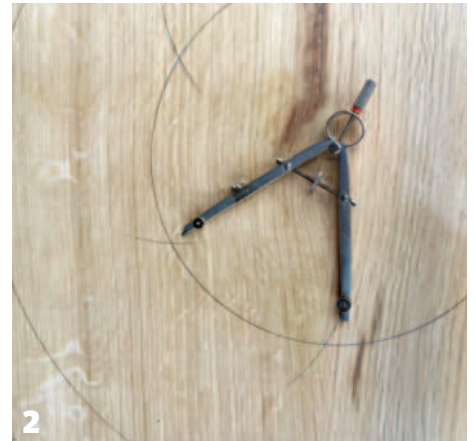
- Clamps to joint the top
- Glue
- Power sander to clean up jointed top
- Compass
- Square and ruler
- Bandsaw or jigsaw to cut out top
- Router and cutter, the cutter used is a milling cutter with top bearing
- Callipers and Vernier
- Hot-melt glue gun
- 20mm drill bit
- Faceplate and board
- Faceplate ring
- Screws
- Lathe centres
- Chuck and jaws
- Beading tool 10mm
- 20mm spindle roughing gouge
- 10mm and 12.5mm bowl gouge
- Skew chisel
- Round-nose scraper
- Abrasive and oil to finish



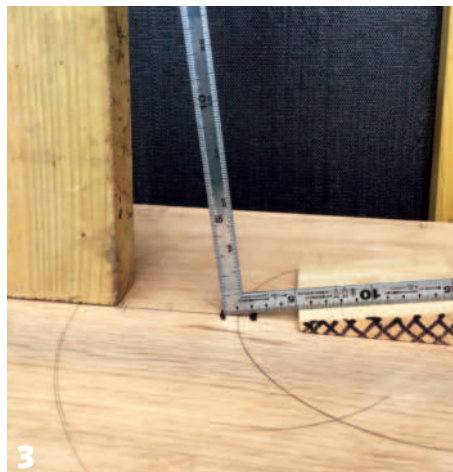
1 The two boards to make the top are machined to thickness, the jointing edges squared up with a hand plane and then glued together. I use three clamps – two under and one above to ensure this is kept flat. When dry this can be sanded to clean up any misalignment



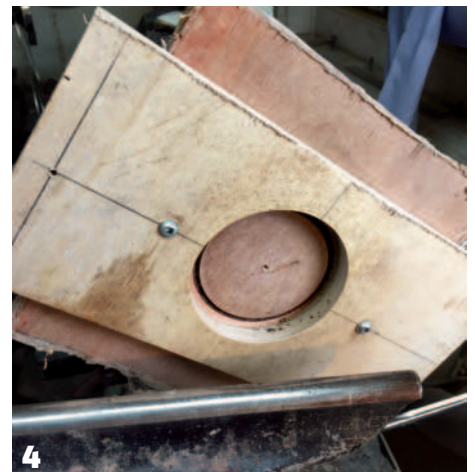
2 On the underside of the top, mark out the overall diameter – the smaller circle is the diameter placement of the three legs. The circle is drawn then marked out as if creating a hexagon. Take and mark the three alternative locations and also mark the central point with a pencil. Draw lines from the centre through the three leg points



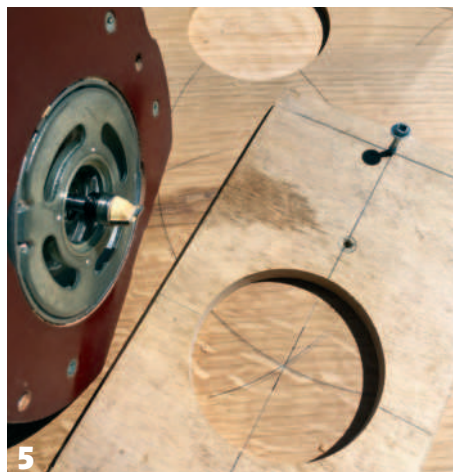
3 Using one of the leg blanks positioned on the overall diameter of the top and a square set on the inner circle, tilt the square to reach the leg and measure the gap under the square. This will involve taking a length and measuring up to meet the square. Transfer this to a block and cut to make a wedge. Check this using the same set-up.



4 To route the three recesses in the underside of the top, make a plywood template. This has a central line along the length and a cross point which will be used to position on to the central point of the tabletop. Affix this template to a ply board mounted on a faceplate and accurately cut out the required diameter.



5 With a screw or nail holding the template on the centre point, clamp the template to line up the leg line, using a bearing guide cutter set to a maximum depth of 6mm route out each of the three recesses in tabletop. The central pin allows the template to be swung around to the three positions.



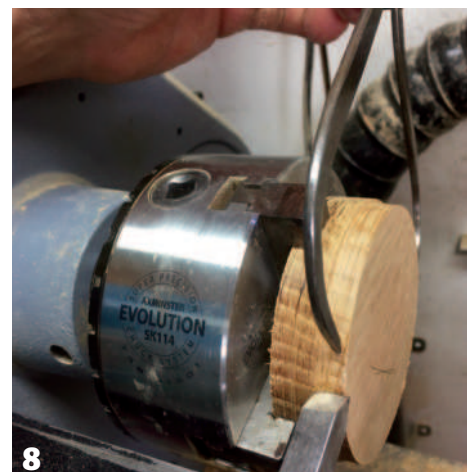
6 With the recesses cut, the circular shape of the tabletop can be cut using either a bandsaw or jigsaw. The waste areas that are cut off are going to be used to make the inserts to fit into the routed recesses.



7 With the top cut out, mark out and cut the three smaller blanks from the corner waste. These need to be 2-3mm oversize as they are going to be turned to fit accurately. A spare block is always useful.



8 Holding these in a set of jaws in the chuck, carefully use a beading tool to turn the accessible face down to the diameter required. Check how these fit into the recess in the tabletop as they need to be a tight fit. Repeat for all three, plus the spare if you have one. Set the top and inserts aside.





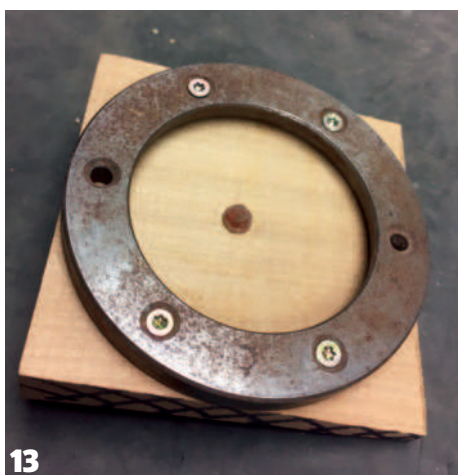
9 Set up the lathe and turn all three blanks down to a straight cylinder using a roughening gouge, then set up the callipers to measure the important points each end. The diameter of the spigot is 20 x 25mm long, diameter at the base of the legs is 30mm and the top is 45mm.

10 The 20mm spigot is important and needs to be an accurate fit. A test block with a hole drilled in makes an easy way to check this. To be able to cut the required diameter of the legs into the insert that fits in the tabletop, a short sample was made. This has the spigot size and leg diameter set up as a guide. These can be sanded at this stage.



11 To hold the oak discs on the lathe, a plywood jam chuck is turned. This fits within a set of chuck jaws. A recess is cut into the open face, matching the diameter of the turned section oak disc. These need to push fit into this and hold. The depth of this recess also needs to be the same as cut into the tabletop recesses – 6mm.

12 Using the plywood jam chuck, hold each of the oak discs central. With the point of a skew chisel or the tailstock centre point, mark the central position of each blank. This helps to find and check the position of these when tilted.



13 The carrier block is made with a faceplate ring and the wedge produced when laying out. This needs to be accurately positioned on the block, so I cut the wedge to 100mm square, the same as the faceplate ring. The dowel in the centre was an idea that did not help.

14 Hold the faceplate ring and wedge block on the chuck on the lathe, position the jam chuck with one of the smaller blanks loaded within it, bring up the tailstock centre to line up with the central point as marked on the smaller disc. Draw a circle where the plywood and the wedge join.



15 With the faceplate ring off the lathe and the small blank removed from the plywood jam chuck, realign the plywood disc on the drawn line. Drill two holes and screw the plywood to the wedge. These screws are higher and lower than the central point of the jam chuck disc when held on the wedge.

16 To ensure that the smaller discs are held within the plywood jam chuck, drill two holes through the wedge and plywood so that two screws can be fed through from faceplate ring side. These need to be about 17mm off-centre so that they hold in the thicker material. And the screws need to be no longer than 30mm.

17 Before the disc can be shaped these need to be set for their location within the table. With the tabletop upside down insert each of the smaller discs so that the grain direction of the tabletop and inserts lines up. On the insert disc mark a short line on the point nearer the centre of the table, this will line up with the markings as drawn in step 3.

18 On the lowest side of the wedge, find the halfway point along the length, draw a pencil line towards the centre and extend this line on to the plywood jam chuck. Insert the smaller disc, lining up the pencil line as drawn in step 17. Turn this over to the faceplate side and screw in the two 30mm screws to hold the workpiece in place.

19 Hold the faceplate ring on the lathe, with a 20mm drill bit held in a drill chuck in the tailstock. Check that this lines up with the central mark point of the small disc, then drill the 20mm hole all the way through the small disc.

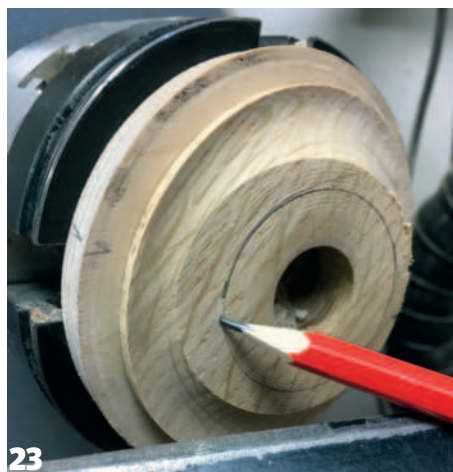
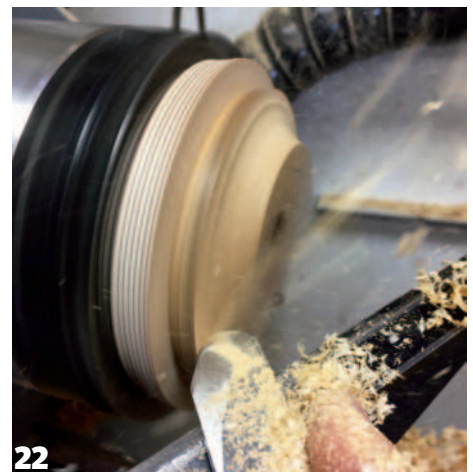
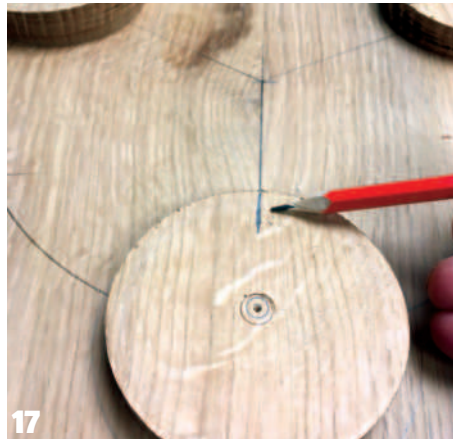
20 Using a bowl gouge, work from the centre out to flatten off the top of the disc. Use the short sample of the leg to check this – the aim is to remove just enough. The pencil lines on the face show what I have not needed to cut; the section where the diameter of the leg is seated needs to be flat. Repeat the set-up on the other two discs.

21 With all three small discs cut to the angle, remove the plywood jam chuck from the wedge block, insert one of the small discs and hold the jam chuck on the lathe in the chuck jaws. Draw on the diameter of the sample section of the leg.

22 Using a round-nose scraper, start to shape the curve shape into the disc. The plywood jam chuck sets the maximum depth towards the chuck, the pencil lines act as a guide towards the centre.

23 With the lathe stopped inspect what is happening. Altering where the material is removed from will allow a circle to be produced to match the sample leg diameter. The aim is to get as close to the leg sample diameter as possible and also blend into the plywood jam chuck.

24 Regular checks are important to ensure how this is coming along. Time spent here, will save a lot of hand sanding later. Sand these at this stage. Repeat for all three discs.





25



26

25 With the small disc in the correct position within the tabletop, use a cordless drill to extend the depth of the hole. Remember this is cutting at an angle. Set the depth on the drill shank, an extra set of eyes is useful at this stage.

26 With the holes drilled on the tabletop, the small disc can be glued on to the spigot on the top of the legs. It can be worth spending a few minutes to look at how the grain lines up – colour match before you race into this. PVA will glue these with a rub joint forcing the air out.



27



28

27 The tabletop is attached to the lathe using a plywood board fixed to a faceplate. This is then positioned accurately, and then, using a hot-melt-glue gun, fix the two together. This way there are no holes in the table.

28 This is the largest item, so the head of the lathe is swung out towards the back of the lathe bed so that the underside of the top is easily accessible. The speed will need checking, and the belt moving down to the lower setting.



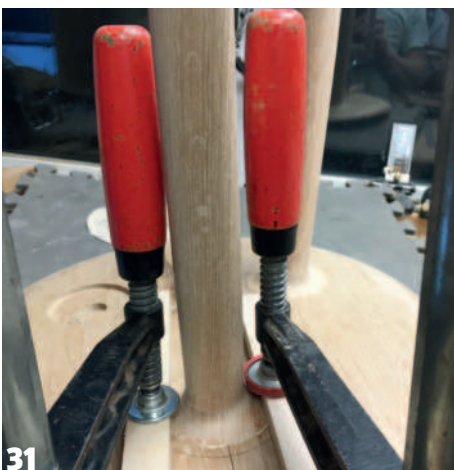
29



30

29 Lay out a pencil guideline for the diameter of where the chamfer will end. Remove the material using a bowl gouge, working from the centre towards the edge. Clean up the outer edge and soften the top edge, sand the areas that have been turned, remove from the lathe and cut the hot-melt glue line with a sharp wood chisel.

30 Use the lathe to hold the legs and hand sand the joint, blending the shape together, so that these flow.



31



32

31 Glue the legs into the top, line up the angle of the legs, and use clamping blocks to hold these in place to allow the glue to set – I did one leg at a time. With all three glued in place it is possible to use a rotary sander to sand the underside, including between the legs and the top of the table.

32 The completed table has several coats of finishing oil. ●

A New Line of Woodturning Tools at Olivers Woodturning

GlassCast® THE CLEAR CHOICE IN RESIN

We have added GlassCast 3 as well as the bulk packs to the range



GlassCast 50
500g = £14.95
1kg = £23.95
5kg = £83.95
32kg = £449.95



GlassCast 3
500g = £14.95
1kg = £23.95
5kg = £83.95
37.5kg = £529.96



GlassCast 10
500g = £14.95
1kg = £23.95
5kg = £83.95
32kg = £449.95

GlassCast 50 casts layers up to 25mm.
Create stunning looking river tables.
Ideal for casting hybrid blanks.
Castin layers for deeper fills.

Olivers Woodturning
GlassCast 3 casts layers up to 5mm.
It produces a high gloss finish.
Ideal for the final, top layer of your casts.
Highly UV resistant.

GlassCast 10 for castings up to 10mm thick.
Add colour tints for stunning effects.
Ideal for casting pen blanks.
Dries as clear as water.

hamlet
CRAFT TOOLS

Hamlet Big Brother System 2 - Deep Hollowing System

New to Olivers Woodturning

Big Brother System 2 Multi Handle
26" heavy duty tool
Supplied with a cutter
Adjustable edge connector
£133.66

Big Brother System 2 Curved Stem 5/8"
Without cutter
£44.46

Big Brother System 2 Small Swan Neck Stem 1/2"
Requires the 1/2" collet when used with the handle
£33.12

Big Brother System 2 1/2" Collet
Allows 1/2" stems to be used with Big Brother Handle
£24.82



Sharpening woodturning tools

Marty Kaminsky explains sharpening bowl, spindle and detail gouges in Part 3 of his series

If you want to be a good woodturner, become a great sharpener. Sharpening bowl, spindle and detail gouges is a little more complex than the scrapers and other tools we've sharpened up until now in this series, but with the Vari-Grind jig it's still pretty easy. In this article, I'll show you how to re-sharpen a correctly shaped gouge and how to sharpen a new gouge or improperly shaped tool.

Although all of the photos in Part 3 of Sharpening Woodturning Tools show the original Vari-Grind jig, the Vari-Grind 2 is used in exactly the same way.

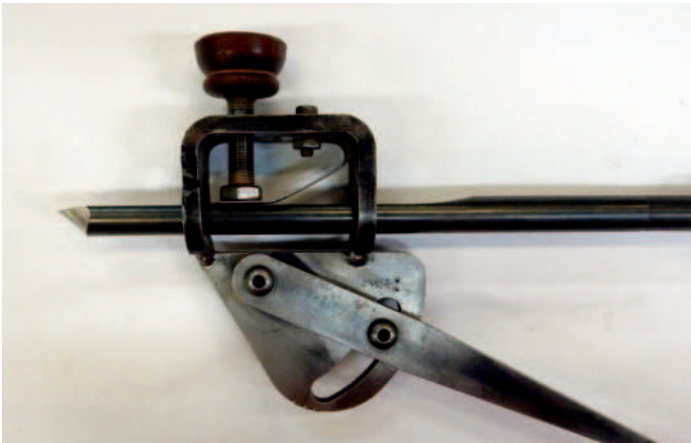
Using a Vari-Grind with the Wolverine sharpening system to re-sharpen a correctly shaped tool

The Vari-Grind is used to sharpen bowl, spindle and detail gouges with various settings to get proper angles and wing (side grind) length. Some experimentation must be done to get the grind you want with your particular grinder/jig set-up. There are three variables that must be set when using the Vari-Grind jig, which establish the wings and nose angle of your gouge: 1 – the Vari-Grind leg angle; 2 – the distance that the vee-pocket extends out of its base (Note: the Vari-Grind 2 doesn't use a vee-pocket. Instead, it uses a pivot arm assembly, which, like the vee-pocket,



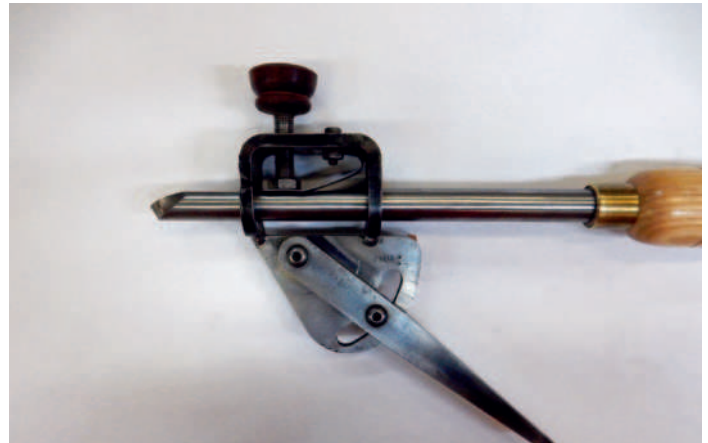
Bowl gouge in Vari-Grind jig

slides into the base assembly); and 3 – the protrusion distance of the tool past the end of the Vari-Grind jig. Keep in mind that the Vari-Grind jig does not ensure a properly sharpened tool. It gives guidance in getting the proper shape, but you still must provide close attention to your sharpening progress to get a properly shaped and sharpened tool.



Vari-Grind in the 'fingernail' (no wing) position

Basic principle: moving the Vari-Grind angle arm back produces less wing (side grind) for a fingernail profile grind; moving it forward produces more wing for an Ellsworth/Irish



Vari-Grind in the swept back (side wing) position

grind (see above). The angle arm adjustment and the vee-pocket distance are interrelated: when you change one, the other is affected.

Basic grinding method

The following is the method used to sharpen bowl, spindle, or detail gouges. Details about grind angles and shape for each type of gouge follow this section.

1 In the Vari-Grind instructions Oneway recommends that you standardise on the amount the tool protrudes past the end of the jig at $1\frac{3}{4}$ in (45mm). Use that distance for all tools sharpened with the Vari-Grind. Use some sort of method to easily set that distance accurately, such as a $1\frac{3}{4}$ in-deep hole in a block of wood, or a stop block from the edge of your sharpening table. Install the gouge in the Vari-Grind to the proper protrusion and tighten the knob tightly on the tool.

2 Adjust the Vari-Grind leg angle to approximately a mid-position.

3 Paint the gouge's bevel with a wide marker pen.

4 Put the Vari-Grind leg into the vee-pocket.

5 With the grinder off, lay the side bevel of the tool on the fine grit wheel and adjust the vee-pocket distance so that the bevel is fully on the wheel. Turn the wheel by hand to make a scratch on the bevel. The scratch should be from top to bottom of the bevel as shown (Pictured right centre). If not, adjust the vee-pocket arm distance until you get the proper scratch.

6 Rotate the gouge to put the nose bevel against the wheel. Adjust the angle arm to get a top to bottom scratch when you hand rotate the wheel.

7 Repaint the bevel with your marker pen. Rotate the tool back to the side and turn the wheel to get a scratch on the side bevel. Adjust the vee-pocket distance if necessary to get a full top to bottom scratch.

8 Because changing the Vari-Grind arm angle and vee-pocket position affect one another, you may need to repeat steps 6



Setting protrusion length. Stop block to set Vari-Grind at $1\frac{3}{4}$ inches (45mm)



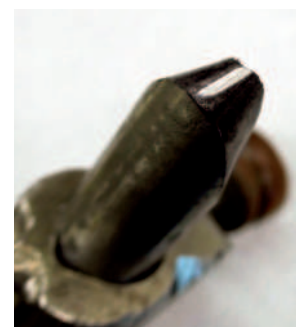
Painting the bevel with an indelible marker



Side bevel lying on grinding wheel



Top to bottom scratch on side bevel



Nose scratch

and 7 until you get a proper scratch on both the nose and side without further adjustments. (Note: as you get better at this, you may not bother with the scratch on the first couple of iterations – you'll be able to just eyeball it close enough. Then use the scratch method on the next iteration or two to fine-tune the settings.)

9 Lift the tool from the wheel and turn on the grinder.

10 Return the tool to the grinder, and with light pressure swing the tool to grind the entire bevel. When all the ink from the marker pen is ground away, the tool is sharp. Pay close attention to the shape of the bevel: The Vari-Grind jig helps guide you but does not control the shape of your tool.



Grinding the side bevel on the fine wheel

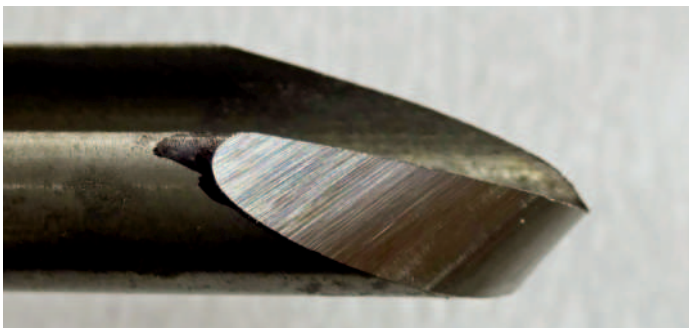


Swinging the tool to grind the nose

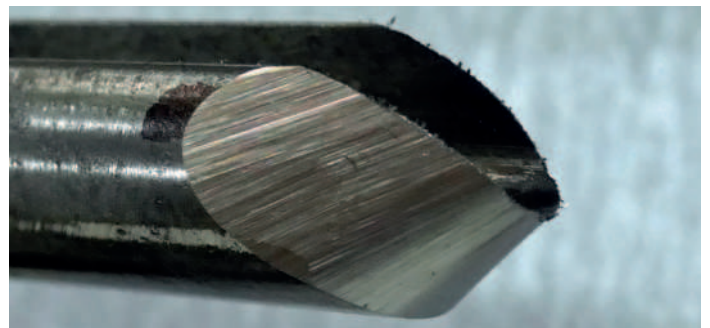


Grinding the other side

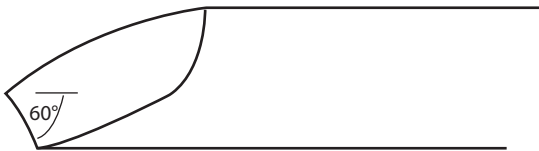
Bowl gouge – re-sharpening a correctly shaped tool



60° bowl gouge with swept back wings ground on a 180 grit CBN wheel



40° bowl gouge with short wings ground with a 180 grit CBN wheel



Bowl gouge with 60° nose and swept back wings



Bowl gouge with short wings ground with a 180 grit CBN wheel

Sharpening angle: 40-65° depending on its use.

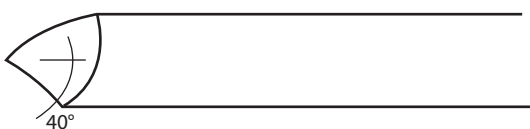
I primarily use two bowl gouges, one sharpened to 40° and the other at 60°. If you have only one, I'd use 55-60°. There are several common grind shapes, including traditional and the swept back Irish (Ellsworth) grind.

The Irish grind has lengthy swept back wings, giving the gouge a dual purpose. In addition to use as a conventional bowl gouge, it

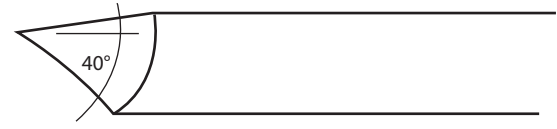
can be used as a shear scraper. Sharpen your bowl gouge as described in the section Using a Vari-Grind with the Wolverine Sharpening System to Re-sharpen a Correctly Shaped Tool.

In the Illustration and picture above depicting a swept back bowl gouge, I show a convex curve on the sharpened edge – some turners prefer that this edge is straight. It should never be concave.

Detail gouge and spindle gouge – re-sharpening a correctly shaped tool

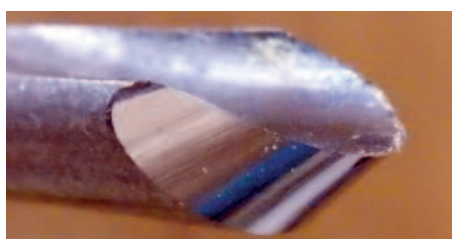


40° spindle gouge

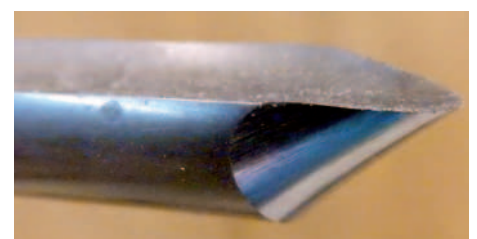


40° detail gouge

Spindle gouges and detail gouges look very similar to each other, but a spindle gouge's flute is deeper than the detail gouge. A detail gouge excels at finer work than a spindle gouge. The method of sharpening is explained in the section Using a Vari-Grind with the Wolverine Sharpening System to Re-sharpen a Correctly Shaped Tool. Sharpening angle: 40°.



Spindle gouge ground on a 180 grit wheel



Detail gouge ground on a 180 grit wheel

◀ Relief bevel (secondary bevel)

Sometimes it's useful to have a relief bevel on gouges and scrapers. This means that you grind away excess metal from the heel under the bevel to allow better access for your gouge.

There are two easy ways to do it. After you've finished sharpening your gouge, slide the vee-arm in about an inch (25mm) and grind away the corner (heel) where the bevel meets the underside of the gouge.

Or, you can make yourself a block of wood – $1 \times 1\frac{1}{4} \times \frac{3}{4}$ in (25 x 32 x 19mm) are good dimensions – that you place in the vee-pocket to move the pivot point forward in the vee-pocket. A rare earth magnet recessed in one side holds it in place. Moving the block from the $\frac{1}{2}$ in to the $\frac{1}{4}$ in side in the pocket

Material to be removed for relief bevel

allows you to make a two-faceted relief. Put the block in the vee-pocket oriented so that it moves the angle arm $\frac{1}{2}$ in forward and rotate the gouge against the grinding wheel to grind away the heel, then rotate the block to the $\frac{1}{4}$ in position and grind a second bevel.



Block of wood with a magnet used for the two facet relief bevel



The with the block in the $\frac{1}{4}$ in orientation



Grinding the relief with the block in the $\frac{1}{2}$ in orientation



Grind a second bevel

Sharpening a brand new (or poorly shaped) gouge

As I said earlier, new tools are seldom provided properly shaped and sharpened by the manufacturer. Here's a procedure for preparing a new or damaged tool. I'm showing the process on a bowl gouge, but the method is the same on a detail or spindle gouge. Unlike most sharpening that you'll do, sharpening an incorrectly shaped tool is one of the few times that you'll remove a relatively large amount of metal.

1 Starting on your coarse wheel, set your platform at the desired nose angle for the gouge you are reshaping. Grind just the tool's nose at that angle.

2 With the flute facing the coarse wheel grind the corners off to get the proper shape on the tool. Use the platform to provide support as you grind off the corners.

3 Put the gouge in the Vari-Grind jig set at the proper protrusion distance, $\frac{1}{4}$ in. Set the angle arm a little forward or a bit back of centre depending on whether you want wings or a fingernail profile.

4 Remove the platform from the coarse wheel and install the vee-pocket.

5 Paint the nose of the tool black with your marker.

6 Put the angle arm in the vee-pocket and adjust the vee-pocket distance such that when the grinding wheel is turned by hand you get a top to bottom scratch on the tool's nose.

7 Begin grinding to gradually reduce the flats you created in step 2 to a properly shaped edge. Inspect the tool frequently as you progress to see if the side grind is what you want. If needed, adjust the side grind by moving the angle arm forward to increase the length or back to



Grinding the nose angle



Grinding the corners off; flute facing the wheel



Corners ground off

reduce the side grind. The photo at the top left of the opposite shows one side of the gouge properly shaped, while the opposite side still has a flat. The photo next to it shows a proper shape all around and, although there are still some small flat areas, they will be taken care of in the next step.

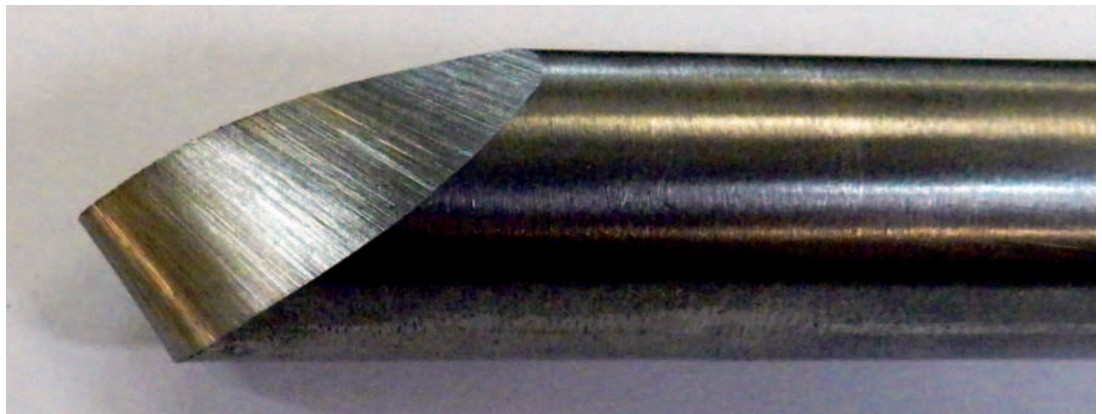


One side ground to proper shape; one to go



Both sides ground to proper shape but still a bit of flat on the edge

8 Move the vee-pocket to the fine grit wheel, taking care to put it at the same distance from the wheel as it was at the coarse grit wheel. Take the tool still in the Vari-Grind to the fine wheel and grind a pass or two on the bevel to bring the tool to final sharpness.



Finished gouge after final grinding on a fine wheel

Woodturning tool sharpening angles

	Generally recommended	My preference
Tool	Angles	Angles
Bedan	15-30	
Bowl gouge	40-65	40 and 60
Carbide scraper	*	*
Deep hollowing tool	70-80	70
Detail gouge	40	40
Negative rake scraper	25 top/40 bottom	25 top/40 bottom
Parting tool	50	50
Scraper	70-80	75
Negative rake scraper	25 top/40 bottom	25 top/40 bottom
Parting tool	50	50
Scraper	70-80	
Skew chisel	70 skew/bevel**	70 skew/bevel**
Spindle gouge	25-40	40
Spindle roughing gouge	40-45	45
Thin parting tool	45	45

* Flatten back of carbide scraper on 1000 grit diamond plate

**The width of the bevel should be 1.5x the thickness of the tool

Next month

In parts 1 through 3 of this series we've covered setting up your sharpening system and how to sharpen all the tools in your arsenal. In Part 4 I will show you how to make some small upgrades in your grinding system and methods to make sharpening bowl, spindle, and detail gouges very easy with my Easy-Peasy method. You might think that setting up an easy-to-use system would be the first thing that we'd do, but to set up your Easy-Peasy system, you must first have correctly sharpened gouges to serve as your target.

Once again, I bid you to stay sharp my friends. ●

Whilst this article focuses on the Wolverine Vari-Grind system it should be noted that there are other similar systems available from a range of manufacturers. Most of the systems work in a similar manner and will vary only in design and specific method of use. The fundamentals of this article would hold true regardless of the jig you use or choose, and the techniques will be adaptable to each system with some thought.

INNOVATIONS MADE IN THE USA FOR OVER 90 YEARS

The AXE™ Carbide Woodturning Tools

NEW

Setting the New
Standard for Carbide
Woodturning tools.

- Extended Length Stainless Steel Cutting Bar for Strength & Balance
- Flat base with Skew Bevel for Easy Transition to Skew Cutting
- Ergonomic Handle for Extreme Comfort and Control
- EZID™ Color Coded Ferrules across the entire size line
- Super Sharp Long lasting Carbide Cutters
- Free 2nd Cutter with every tool (up to \$19 USD value)



**ACCURIGHT®
CENTER MASTER**
Blank Creation System



MULTIREST®
Vessel Support System



HOLLOW ROLLER®
Vessel Turning System



PERFECT SPHERE™
Sphere & Bowl Turning System



STRONGBORE™
Modular Boring Bar

International
Dealers

Austria/Europe

Neureiter
MASCHINEN UND WERKZEUGE
www.neureiter-shop.at/

Germany/Europe

steinert®
www.drechsler-shop.de/

Australia

GREGORY
Machinery
www.gregmach.com

Russia

ITA
www.jettools.ru/

Norway/Sweden

GUSTAVSEN
www.gustavsen.no/

Japan

OFF
www.off.co.jp



Band Saw Accessories
Lathe Accessories
Band Saw Guides
Band Saw Blades
Band Saw Tires
and More!

Innovative Solutions for all your Woodworking Needs

WWW.CARTERPRODUCTS.COM • 616-647-3380 • US TOLL FREE 888-622-7837

Vortex vase

Steve Bisco shows how to set out and carve spirals on a turned vase



Spirals have been around (if you'll excuse the pun) as a form of decoration for several millennia and in most cultures. They seem to be almost at the core of the human artistic vocabulary. Perhaps it is because they occur so frequently in nature – the twisting of a vine up a tree trunk, the eddying of water in a whirlpool, and the airborne vortices that give us tornados and dust devils. Spirals convey an impression of movement, and this can give life and drama to what might otherwise be just a dull wooden pot.

The secret of creating uniform spirals on a turned object lies in the setting out. Once you know the principles you can apply them to almost any round object. Back in 2008, in *Woodturning 187*, I described how to set out spirals on a straight column. In this project we will be creating spirals on a surface the diameter of which changes continually from one end to the other. In both cases we have to mark out a grid and draw the spirals across the diagonals. On a

straight, regular surface like a column, the grid is evenly spaced. On a variable surface like this vase, the spacing of the gridlines has to vary in relation to the diameter of each part of the vase. This is easier to demonstrate in pictures (photos 9 to 13) than in words.

The one drawback of spirals for a woodturner is that, unless you have some very expensive equipment, they cannot be made by turning alone. They are an embellishment to your turning that you have to add by hand. For carvers, who are used to measuring projects in timescales of weeks, this is not a problem. For turners, who are used to completing a job in a few hours, the time spent carving spirals on to a vase, bowl or spindle by hand (about 12 hours in this case) can be a bit of a culture shock. But the rewards make it worth the effort – turned objects that look as if they are about to go into a spin and disappear down the plughole. You don't get 'movement' like that on a plain surface.

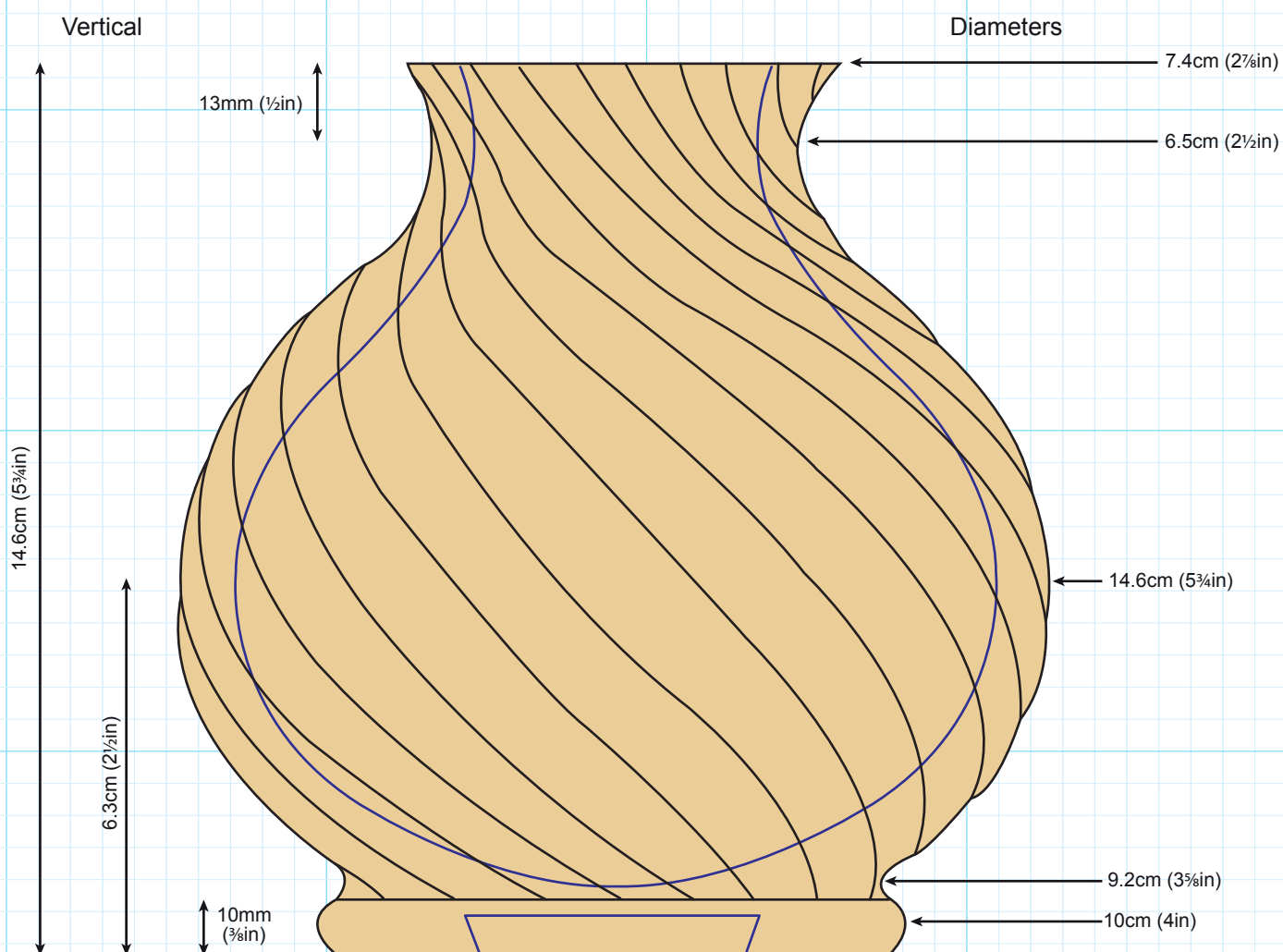
EQUIPMENT USED

Materials

- This job requires a 150mm cube of wood. It is not easy getting kiln-dried wood more than 100mm thick, so I used a half-dry piece of strawberry tree. With end-grain hollowing it helps if the wood is a little 'green', and minor shrinkage is unlikely to show much in the finished vase.

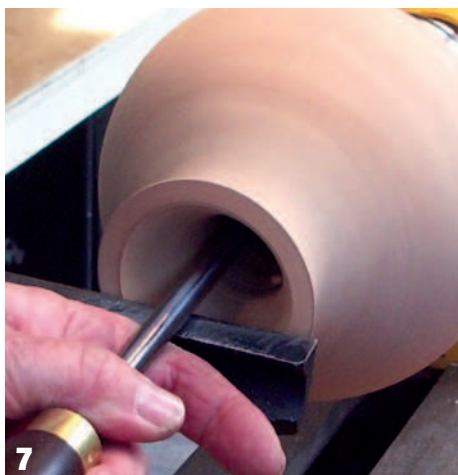
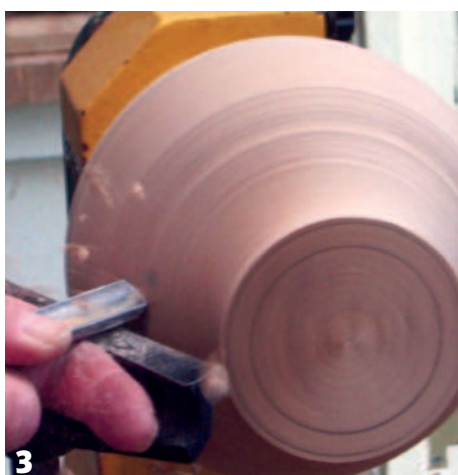
Tools

- The turning tools I used for the outside of the vase were the usual spindle roughing gouge, bowl gouge and spindle gouge, finishing with a flat and a half-round scraper. For hollowing the inside, I drilled out with a 30mm Forstner bit before hollowing out with a 13mm ring tool.
- For the spirals I used three woodcarving gouges: a No.3, 10mm; No.8, 8mm; and No.8, 8mm curved.



DID YOU KNOW?

Spirals are a force of nature, found in the movement of water, the growth of plants and many other phenomena. They relate to the rotation of the earth and the sun's daily orbit. A vortex in water as it goes down the plughole rotates clockwise in the northern hemisphere and anti-clockwise in the southern hemisphere. At the equator it goes straight down.



TURNING THE VASE

1 Start with a 150mm cube of any suitable wood, mount it between centres with the grain lengthways, turn it to a 146mm diameter cylinder and square off the ends.

2 At the tailstock end, cut a mortise to receive your chuck in expansion mode. Remove the central nib when off the lathe.

3 Mount the cylinder in the chuck by the mortise, and shape the neck end of the vase.

4 Use a spindle gouge to shape the base end of the vase down to a beaded foot, finishing with a 10mm bead former.

5 To finish the outer surface I used a 25mm flat scraper on the convex curves and a 25mm half-round scraper on the concave curves, both ground to a bevel of 45°. Turn it to a good finish with the tools, but do not use abrasives at this stage. This will not be the final surface, and any embedded grit from the abrasives will dull your carving tools.

6 To start the hollowing I am drilling to depth with a 30mm Forstner bit in a Jacobs chuck. Even with the lathe on the slowest setting (750rpm) there was a fair bit of smoke coming out of the hole because of the friction.

7 I completed the hollowing with a 13mm ring tool. Don't be tempted to make the walls of the vase too thin – there is a time and a place for thin-walling, but this is not it. Your carving cuts for the spirals will go about 4mm deep, so leave about 10mm thickness in the vase wall.

8 With the turning phase finished we now have what, it has to be said, is a fairly dull vase – but that is about to change as we go into the spirals.

TOP TIPS

- When you are using a Forstner bit or any similar device to drill out the centre of a vase, be aware that the bit and the wood can get very hot, and in some cases the wood shavings may smoulder. Leave the shavings outside in a container for a while until you are sure they are cold, and don't touch your skin against the hot drill bit.
- When you are carving on a vase surface with woodcarving gouges, grain direction has a far greater importance than it does with turning. The grain will mainly run from the base to the top but is also affected by the outward and inward bulge of the vase diameter. Always carve 'downhill' to the grain, and take particular care to carve in opposite directions on the sharp ridges of the spirals.
- You can use rotary abrasive tools instead of gouges for woodcarving, but be aware that the friction will heat up the wood and may dull the surface, whereas traditional hand carving tools do not create heat and will produce a shiny surface on hardwoods.

◀ DRAWING THE SPIRALS

9 Draw a pencil line around the widest point of the vase and measure the circumference with a fabric tape measure – in this case on my imperial tape measure exactly 18in (458mm). Divide the circumference into 24 equal 'segments', in this case exactly $\frac{3}{4}$ in (19.08mm) each, and mark these off on the circumference line. Remember that your spirals will cross this line at 45°, so they will be considerably narrower than the segment width – about 13mm at their widest point.

10 Set your toolrest so when you rest a pencil on it horizontally, the tip of the pencil is level with the centres on your lathe. Line up one of the 24 segment marks with your pencil tip then, keeping the pencil horizontal on the toolrest, draw a line lengthways along the vase at right-angles to the circumference. Repeat the process on each of the segment marks.

11 Use drawing compasses to measure the distance between the lengthways lines at the widest circumference line and transfer this measurement along the lengthways line. Draw another line around the circumference.

12 Repeat this process moving left and right of the centre, each time re-measuring the distance between the lengthways lines at the last circumference line. You end up with this grid where the horizontal and vertical lines are spaced in proportion to the diameter.

13 Now it gets easier. Draw across the diagonals of the 'squares' you have created, working from bottom left to top right. You should end up with 24 identical spiral lines, wider at the centre and narrower at the neck and foot.

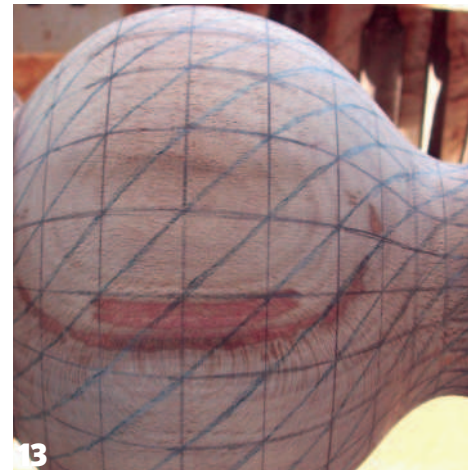
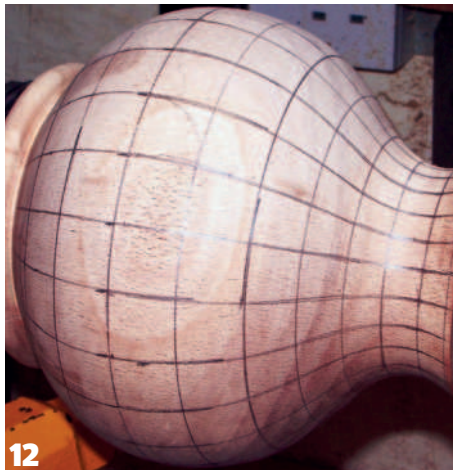
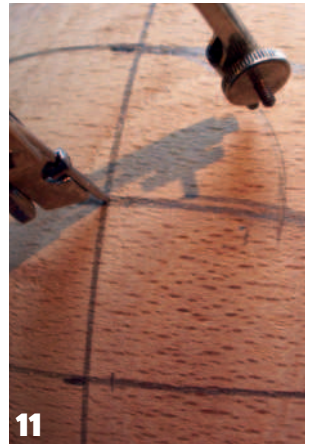
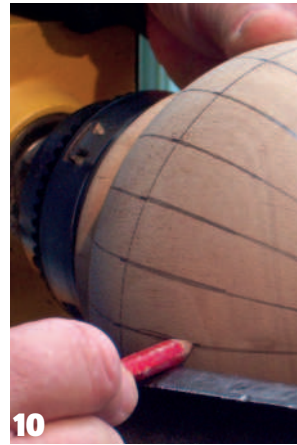
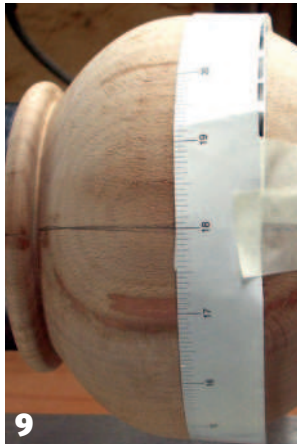
CARVING THE SPIRALS

14 Use the lathe as a workbench by holding the vase in the chuck. At the tailstock end place a piece of board (bottom edge resting on the lathe bed) and some non-slip mat and use the tailstock as a vice. Start carving, cutting a 'cove' between the spiral lines with the gouges. Work the surface down as smooth and even as you can. Run your gouge along the edges of the spirals to create a crisp ridge. Always cut with the grain on each side of the ridge.

15 Use a bent gouge to get a smooth curve in the turn of the neck. Take care to create an even scalloped edge at the rim of the vase. Always carve inwards towards the wood at an edge.

16 After you have cut the spirals as smooth and crisp as you can with the tools, roll a piece of abrasive around a pencil and use it to finish the surface, taking care not to round over the sharp line of the ridge. Start with 120 grit and work down to 400 grit.

17 Finish with a suitable wax or oil finish – I used two coats of Danish oil. Compare the finished article with the rather dull pot in photo 8, and you can clearly see how spirals can bring vitality and movement to a turned piece. ●



The Decorating Elf

by

HENRY TAYLOR

(TOOLS) LIMITED

EST. 1834

The most versatile texturing tool available –
so simple to use.



The "cylinder"
and "bud" cutters
are available as
optional extras

The Decorating Elf comes
complete with a ball cutter
and a free instructional DVD

Cuts wood, side and end grain, acrylics, alternate ivory,
bone, antler, aluminium and brass.

Use it on concave, flat and convex surfaces.

For further information and where to purchase, please visit
www.henrytaylortools.co.uk/decorating_elf.html

READ Woodturning ANYWHERE



Woodturning

THE WORLD'S LEADING MAGAZINE FOR WOODTURNERS

Updating an
antique-style
pillar design



PROJECTS Vortex vase • Pillar clock • Japanese rice bowls
Turned table • Carved platter **TECHNICAL** Quick chuck
tune-up • Easy painting techniques • Tool sharpening tips



Queensland red cedar turned and carved bowl

Andrew Potocnik creates an incredible rectangular platter using turning and carving



Not to be confused with western red cedar, Australian red cedar is a member of the Meliaceae family and can grow to around 60m in height with a trunk that can reach 3m in diameter.

Originally thought of as a species distinct from similar trees found in neighbouring areas of Southeast Asia, it was therefore named *toona australis*, a classification that was changed in line with other red cedar trees generally classified as *Toona ciliata*, so sometimes the tree in Australia may be referred to as *Toona ciliata var australis*.

As one of Australia's few deciduous native trees, red cedar generally grows in rainforests along the east coast of Australia between Ulladulla in New South Wales and Gympie in Queensland and slightly further outside these areas. However, the same species is also native to coastal regions of Papua New Guinea, Southeast Asia and possibly even India.

It appears that, prior to European colonisation, red cedar grew in great abundance along the entire east coast of Australia, from the Clyde River in southern New South Wales to far north Queensland. Unfortunately, its suitability to furniture, decorative veneer wood panelling and boat building led to over-harvesting in a time when it became known as 'red gold'.

The tree's heartwood is pale to dark, rich red brown, while the sapwood is very pale pink or yellow and distinctive from the heartwood with distinct growth rings, which are especially evident on back sawn boards. Pores are obvious to the naked eye and are distinctly larger and more numerous in the early wood.

The grain is generally straight or slightly interlocked,

and the distinctive, pleasant odour is said to repel moths.

GD (Green Density) is about 640kg/m³, add about 420kg/m³ for mature wood, which is quick and easy to dry but needs careful stacking to avoid cupping. However, some collapse can occur. Shrinkage is about 2% radial and 4% tangential.

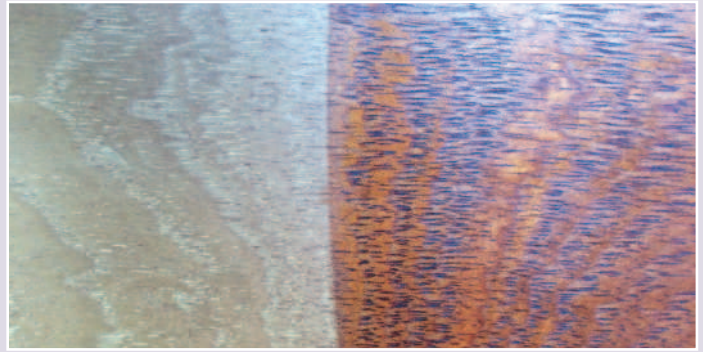
Even though commercial availability of the wood is now somewhat limited, red cedar timber is imported to meet demand, but due to it being a fast-growing tree with the ability to survive drought, fire and moderate frost, these qualities raise its potential as a plantation species, where it may be a suitable tree to grow interspersed with other species, especially silky oak.



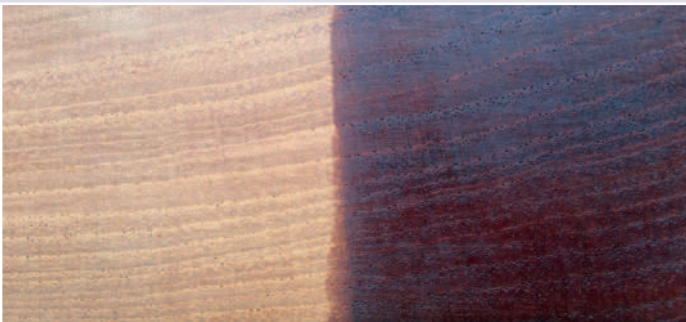
◀ Focus on red cedar



Side grain, bare and oiled



Face grain, bare and oiled



End grain, bare and oiled



Close-up of end grain showing pores

One of the greatest joys of working with wood is the fragrance set free as it is cut, followed by how well it works, either with turning tools or hand held carving tools. There are few timbers that smell as enticing as Australian red cedar, and likewise how well it works, hence its nickname of 'red gold'.

For this project I wanted a wood that has rich colour and could hold fine detail in carved sections, but still present interesting grain in smooth, sanded areas. The only board I had in my stash had a few problems – a stray chainsaw cut and a crack running along most of its length about 50mm in from the edge – so I could only make use of its full width for part of the whole board.

Initially I was planning on making a round bowl with a carved

rim, but all of a sudden I could see potential for a rectangular piece, so with the aid of a piece of chalk and some paper I began to sketch on both. Chalk for the board, and paper and pen for possible details, including how each element would be achieved.

As is often the case, my mind wandered during the course of my daily run, and images of how to glue the blank up for safe turning developed. I could see how the board lent itself to conversion of what was forming in my mind's eye. All developments were sketched on my return and I was ready to get started. As I'm unable to run loud machinery in my suburban workshop in the evenings, I had to allow adrenalin to settle until the next day, which also gave my mind time to refine the making process before getting to work.



EQUIPMENT USED

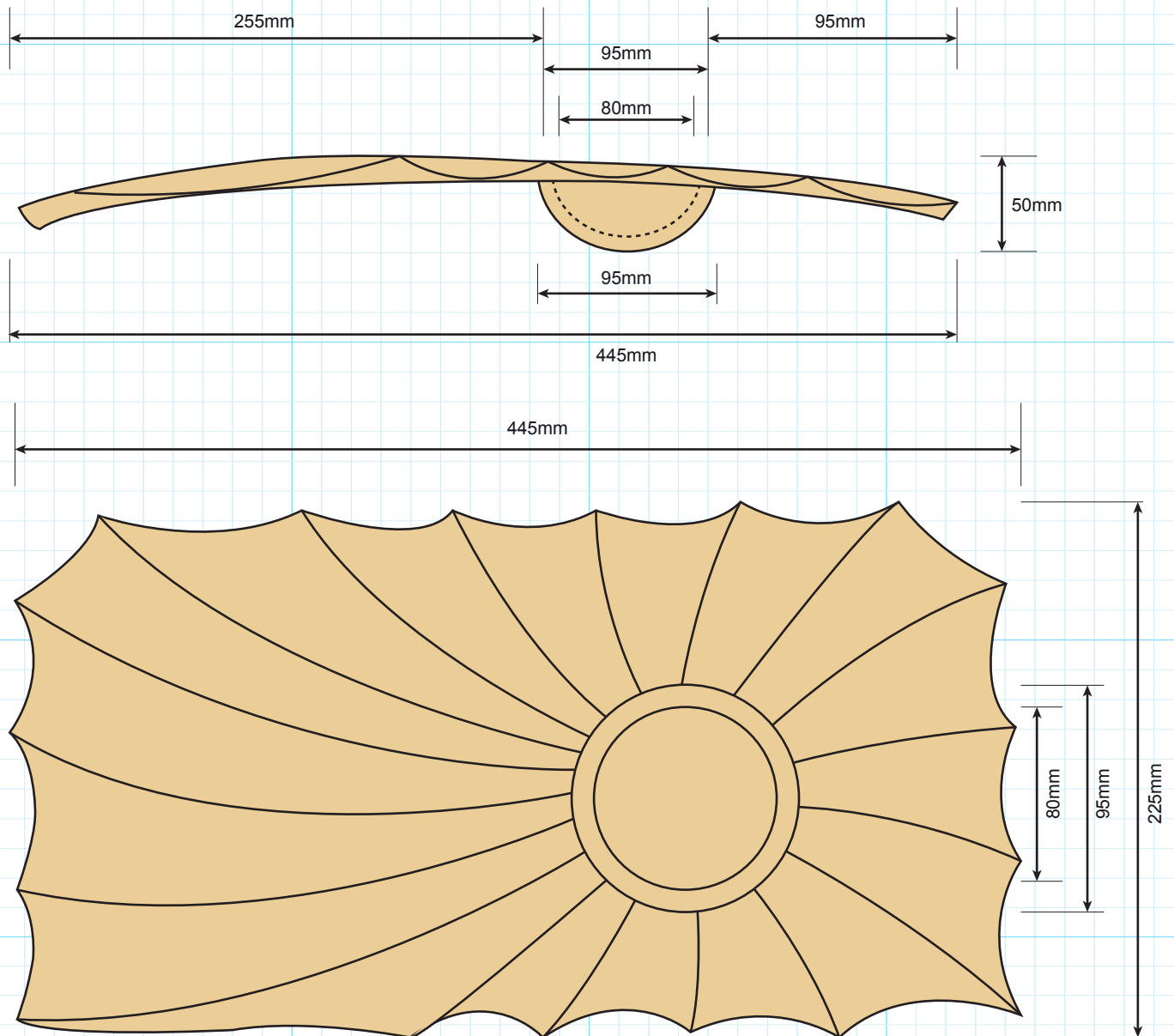
Tools

- $\frac{3}{4}$ in bowl gouge
- $\frac{1}{2}$ in bowl gouge
- Skew chisel
- Figure 8 callipers
- Vernier callipers
- Parting tool

- Square-ended scraper
- Round-nosed scraper
- Carving gouges
- Cabinet scrapers

Materials

- Red cedar



1 A board I had kept for that special occasion for over 20 years seemed perfect for this project, but it had a few issues, as previously mentioned. Some rough chalk sketches guided where cuts were required to arrive at a sound piece of wood with which to get this going.

2 With the edges ripped and planed smooth, I could begin building up sacrificial timber to transform the needed wood from a spinning off-centre propeller into an evenly balanced, circular blank. I used offcuts of structural grade radiata pine, picked up from a construction site, to build up a circle determined with my rather crude large-scale callipers. I hate to see material go to waste, so here is an example of putting waste material to use, and reducing costs.

Once the glue had dried I docked both ends of the block and repeated the process to build up a blank of about 650mm diameter, which was later cut into



a circle on a bandsaw, ready for mounting on the lathe. Preparation of the blank took about two days,



allowing ample time for the glue to dry sufficiently between cuts and subsequent laminations.



3 Generally I would attach a faceplate to the blank in order to hold it safely on the lathe, but this time my centre markings were on the face of the blank so it was easier to mount it between the expanded jaws of a scroll chuck and the tailstock centre, pushed hard into the centre point.

Running the lathe at a low speed of about 600rpm I began to rough the disc down to a uniform surface, working from the 'known' to the 'unknown'. The time and distance between gouge cutting and missing wood in each cut is less than it will be the further out you cut from the centre of the blank, putting less stress on the tool and you, the operator.

4 The surface was gradually turned to a gently sweeping curve that met the trimmed outer surface of the disc. I also trued up its back to determine an appropriate overall thickness that would leave enough material for carved scallops.

5 The edge was angled at about 90° to the top surface.

6 The face surface was smoothed using a power sander with a rather barbaric 60 grit to eliminate any stray gouge marks.

7 To reverse the blank I needed to create a recess inside the area that would later be the bowl, but access was hampered by the tailstock, so I raised the toolrest well above centre height and angled a round skew downward to create an undercut recess to match the jaws of a scroll chuck. You may have realised by now that this project does not follow conventional production methods – however there are reasons for going down a path less trodden!

8 The disc was reversed and mounted on to an expanded scroll chuck...

9 ...so the underside could be roughed down, before final trimming to a thickness of about 12mm.

10 The tailstock was used to add extra support to the disc, but to prevent the centre point from marking wood that would be needed later, I inserted a plug between it and the live centre.





11



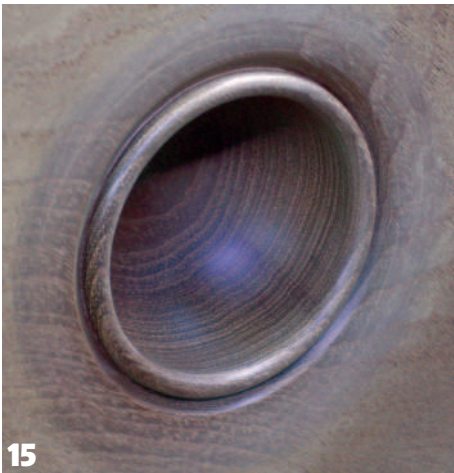
12



13



14



15



16



17



18

11 To check for consistency in thickness I used my figure 8 callipers, but they didn't reach far enough.

12 I drilled holes through the sacrificial material to allow a dowel or Vernier callipers to be poked through so measurements could be compared. Once consistent thickness was achieved and sanded, a tenon was cut at the base of what would eventually be the bowl form so it could be reversed and gripped in a scroll chuck.

13 Turning the inner portion of the bowl required regular checks using maths to determine how much material was available. I couldn't use callipers or other measuring tools due to the size of the disc, so knowing the original thickness of my board I calculated the depth could be around 42mm. A ruler held across the top of the opening and Vernier callipers extended inside it gave an indication of how much deeper I could hollow.

14 The interior diameter was measured with figure 8 callipers and a ruler. Obviously, all measurements were recorded so the exterior of the bowl would reflect that of the interior. This was really a case of tuning blind, devoid of tactile measurements and visual aids.

15 A collar was turned and a neat V-intersection cut with a skew to separate it from the upper surface, which would later be carved. Sanded through to 320 grit, this portion was now complete.

16 It may seem that this project was an exercise in chucking and re-chucking many times over, however there are times when a seemingly simple item takes many complex stages to bring to fruition. Now it was time to turn a carrier to match the interior opening of the bowl so the disc could be reversed and the exterior shaped. Concerned with the possibility of the disc slipping once the lathe was started, I applied some powerful double-sided adhesive tape to the carrier. Sometimes it's better to be sure rather than regretful.

17 Supported by the tailstock and a supplementary waste block preventing damage to the cedar form, the underside of the bowl was shaped. Working from measurements established at step 14, I reduced the exterior diameter of the bowl to about 5mm wall thickness and a base thickness of similar dimensions, fingers crossed. Keep in mind; I was working 'blind'.

18 Once sanded from 120 grit to 320 grit all turning was completed. A missing photo should show how I shaped and sanded the base without the tailstock in place. A tight-fitting carrier and double-sided tape provided sufficient support so now I could remove all sacrificial material on my bandsaw.

19 Aiming for radiating scalloped forms to originate from a central point; I turned a plug, with a central point from which radiating lines were drawn...

20 ...followed by power carving to remove the bulk of material prior to hand carving.

21 The bowl section was held in a set of power grip jaws padded with high-density expanded foam and held in my old-fashioned carving vice, which attaches to the saddle of my lathe. This was simply my solution to a problem many of you could solve according to the tools, jigs and accessories you have on hand.

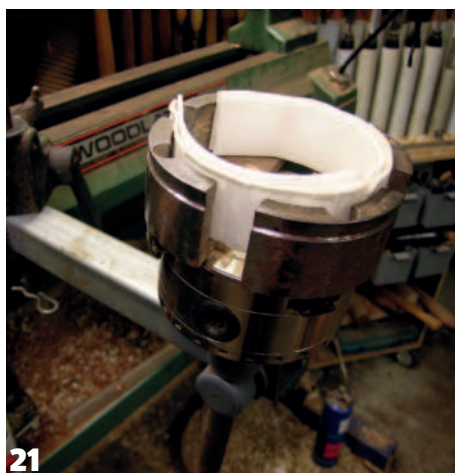
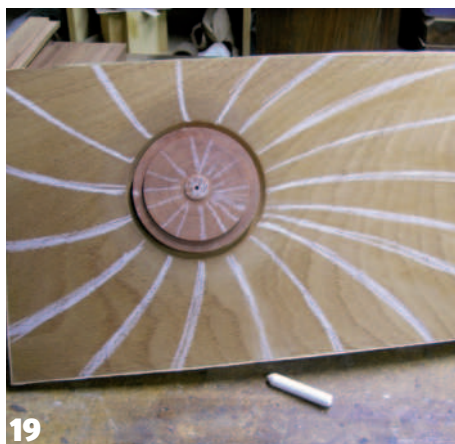
22 Now for the slow process of refining flutes by hand on the workbench. A strong side light, a sharp gouge and several hours were required to refine the overall shape of each flute before...

23 ...lots of hand sanding to eliminate all tool marks and sharpened ridges, or spines, between each flute. I used dowels of various diameters to wrap sandpaper around to get into tight spots and create definition – along with very sore fingertips where nothing else will suffice. Powered drum sanders and scrapers also helped. A strong side light helped highlight any areas that still needed attention. Creeping up to defined ridge lines is a slow process, refined as you work through grades of sandpaper, 120, 180, 240 and 320 grit.

24 With all surface sanding completed, it was time to remove remaining sacrificial material on a belt sander.

25 This was then used to create gentle curves between high points on the bowl's surface. There isn't a formula or prescribed radius to these curves, it's all shaped by eye to create a balanced flow on the outside of the bowl. I find that an undercut angle of about 15° works well to provide a sharp intersection between the upper surface and edge of the form, which in subsequent sanding is 'eased' with 320 grit sandpaper to leave a visually sharp edge, which is inviting to the fingertips to explore.

26 Applying a 'finish' highlighted the depth of colour this wood has to offer and a subtle glistening on face grain. I can see why it's called 'red gold'. It turns and carves so easily, sands well, has an enticing scent and looks spectacular once a finish is applied. ●



Stiles & Bates

The Woodturning People

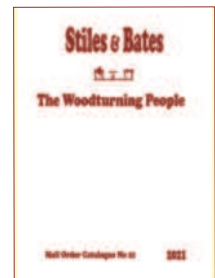
Upper Farm, Church Hill, Sutton,
Dover, Kent, UK. CT15 5DF

Tel: 01304 366 360

www.stilesandbates.co.uk sales@stilesandbates.co.uk



Woodturning blanks and timber are our speciality, but there's more . . .



FREE
Mail Order Catalogue
(No 21 due January)



nova
Smart Tools. Powerful Solutions



**Nova Voyager
DVR Variable
Speed Drill
Press**

£1575.00

RECORD POWER
ESTABLISHED 1909



**Coronet
Regent**

£1995.00



Exclusive to
Stiles & Bates!

OSC1 Crown Large Octagonal Shear Cutter **£85.00**
OSC2 Crown Small Octagonal Shear Cutter **£75.00**

CrushGrind® Mills



CGM100	Crushgrind® Mini Mill	100mm	£5.30
CGM123	Crushgrind® Mechanism	123mm	£5.60
CGM135	Crushgrind® Mechanism	135mm	£5.70
CGM195	Crushgrind® Mechanism	195mm	£6.20
CGM260	Crushgrind® Mechanism	260mm	£6.40
CGM284	Crushgrind® Mechanism	284mm	£6.45
CGM470	Crushgrind® Mechanism	470mm	£7.60
CGM-W	Crushgrind® Wood Mechanism		£5.40

Quantity discount.
Buy any mix of ten or more Crushgrind®
mechanisms for 10% discount.
We only sell genuine CrushGrind® mills

GlassCast®

Clear Epoxy Casting Resins
Self de-gassing
No vacuum chamber needed

New accessory range online now
and due in our 2021 catalogue



**Nova Saturn DVR
Variable Speed
Lathe**

£2075.00

**Coronet
Envoy**

£1595.00

milliput®

Two-Part Epoxy Putty



MIL-ST	Milliput Standard	£1.98
MIL-TER	Milliput Terracotta	£2.20
MIL-SIG	Milliput Silver Grey	£3.15
MIL-BLA	Milliput Black	£3.29
MIL-SFW	Milliput Superfine White	£3.96
MIL-TUR	Milliput Turquoise	£5.36

**10%
DISCOUNT
GLASSCAST RESIN AND MILLIPUT
UNTIL 31ST JANUARY 2021!**

GC3-500	GlassCast 3 - 500g Kit	£13.95
GC3-1K	GlassCast 3 - 1kg Kit	£21.50
GC3-5K	GlassCast 3 - 5kg Kit	£75.50

GC10-500	GlassCast 10 - 500g Kit	£13.95
GC10-1K	GlassCast 10 - 1kg Kit	£21.50
GC10-5K	GlassCast 10 - 5kg Kit	£75.50

GC50-500	GlassCast 50 - 500g Kit	£13.95
GC50-1K	GlassCast 50 - 1kg Kit	£21.50
GC50-5K	GlassCast 50 - 5kg Kit	£75.50

Our shop opening hours
(With Covid-19 hygiene rules in place)
Monday to Friday 9am - 5pm
Saturday 9am - 4pm
Sundays and Bank Holidays - Closed



Prices advertised INCLUDE VAT @ 20% and exclude carriage. Discounts are against 2020/21 prices.

Pillar clock

Ian Woodford brings an antique-style pillar clock design up to date

For many years I have been interested in and collected antique clocks, which has partially been reflected in the design of my turned clocks. This project is based on a single pillar antique clock, but I have brought it up to date by using less detailed work and more flowing lines.

The clock has nine separate sections and uses two different woods. The majority of the clock is made from bubinga with accents in boxwood to make it interesting. All sections are easy to turn but accuracy is necessary. I find the best way to turn the clock is to start at the base and work my way up, testing the fit as I go. The diagram shows how each pillar section passes into the next section.

EQUIPMENT USED

Tools

- Jacobs chuck
- 5, 6, 8, 10mm drill bits
- Spindle roughing gouge
- Bowl gouge
- Spindle gouge skew
- Beading tool
- Narrow parting tool
- Callipers
- Ruler
- Small triangular file
- Sanding sealer
- Carnauba wax
- Wood glue
- 50 mm diameter clock insert (available online and from craft shops)
- Respiratory protective equipment

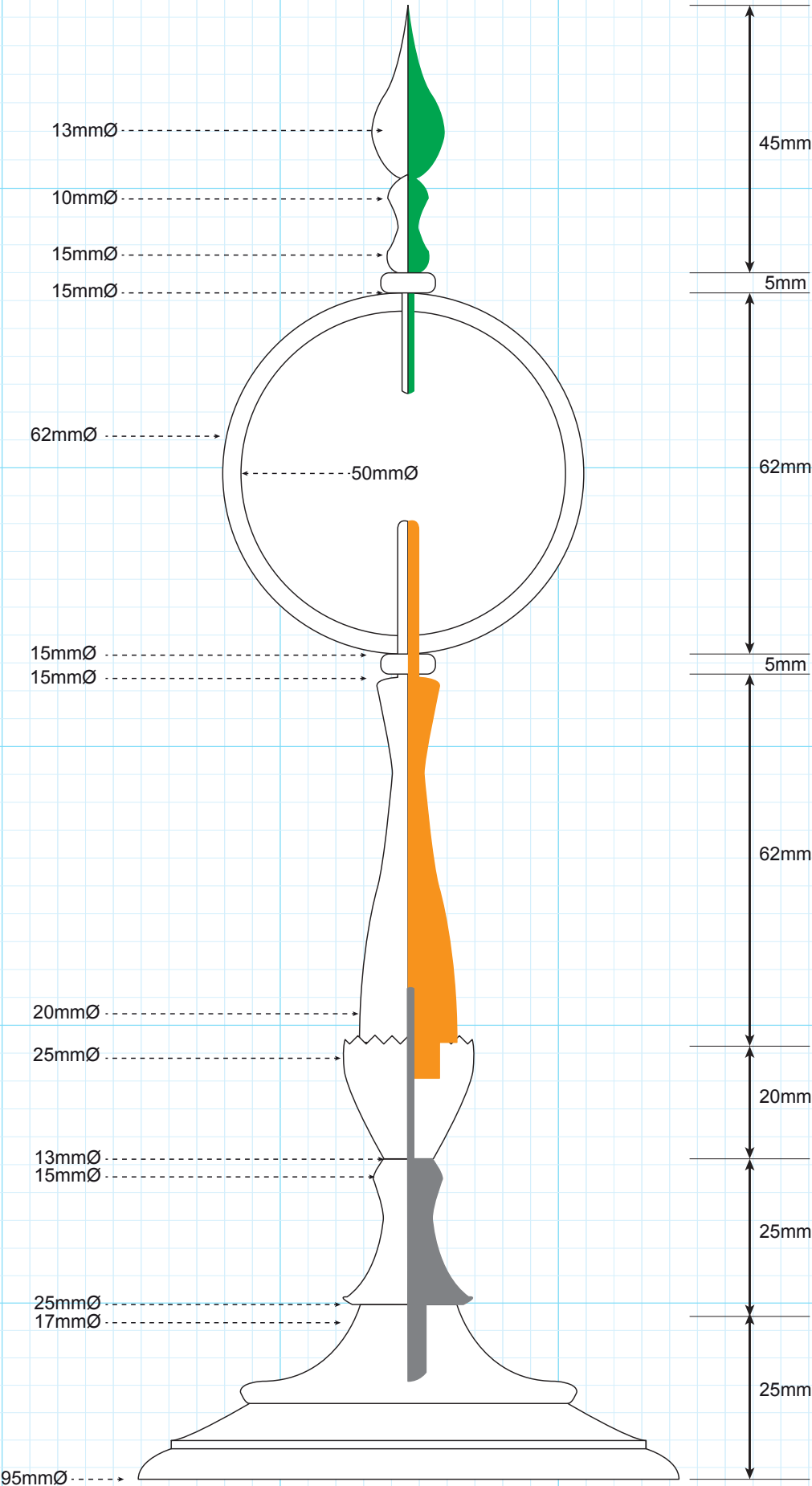
RIGHT: This shows all the blanks necessary to complete the project. The dimensions are:

Materials

- Base: 100 x 30mm
- First stage clock pillar: 80mm long x 30mm square
- Main pillar: 100 x 25mm square
- Top finial: 70 x 20mm square
- Serrated section and rings, back decorative ring: 90mm long x 30mm square
- Clock barrel: 65mm square x 55mm long



PHOTOGRAPHS BY JASON BREACH



1 The base blank has been held against a coarse sandpaper jam chuck and kept firmly in place by the tailstock.

For a small blank like this it is quite secure as long as there is good tailstock support. Gently true the outer surface with a bowl gouge, then with a beading tool form a spigot to suite your chuck jaws.

2 Reverse the blank on to the chuck and true the face. Turn a recess to suit your chuck. I like to decorate around this by using the point of a skew on its side. This makes it more attractive.

3 This shows the blank reversed and the top design formed. With a 10mm drill bit mounted in a Jacobs chuck, drill a hole about 10mm deep. This will hold the first section of the main column. Sand to 400 grit and seal with sanding sealer.

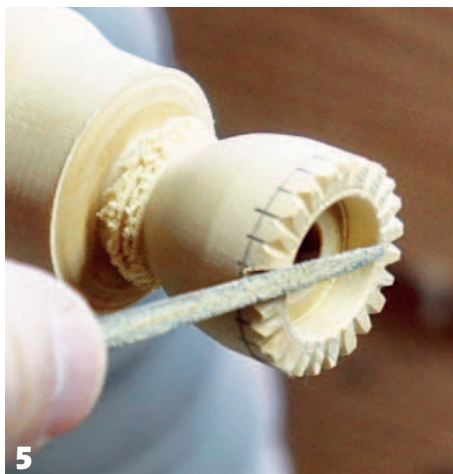
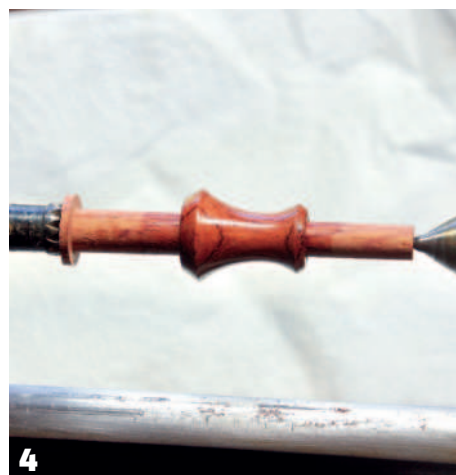
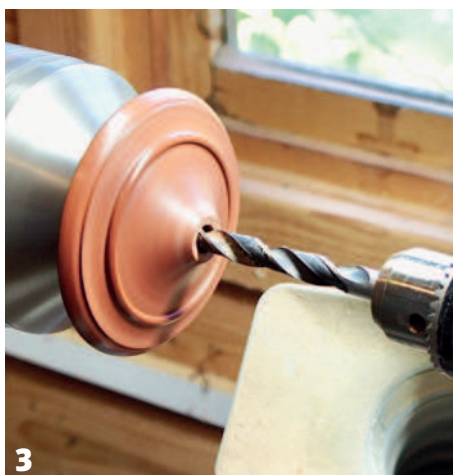
4 The first stage is then turned between centres using a spindle gouge, following the diagram measurements. Turn the bottom dowel to 10mm diameter. This then mounts into the base while the top dowel is turned to 8mm. Leave this long as it passes through the serrated box section and into the main column. Sand and seal.

5 Mount the boxwood blank between centres and rough turn to round. Turn the shape a fraction larger than required. Draw a line about 4mm in from the top end then, using the lathe's indexing system, mark 24 spaces. Drill an 8mm hole all the way through and remove wood to 20mm internal diameter and 5mm deep so the main column can fit in. Using a small hand file start forming the serrated section. All this is all shown in the photo. With your spindle gouge turn to the final dimensions and sand and seal before parting off.

6 This shows the serrated section reverse jam chucked so the bottom can be finished properly. Make sure the hole is also free from any drill shavings.

7 The main column has been roughed to round between centres and then held in the chuck while an 8mm hole is drilled into the base to about 10-15mm deep. Do this with the Jacobs chuck held in the tailstock.

8 After drilling, remount between centres and start shaping using your spindle gouge. The dowel at the end is turned to 6mm diameter and at least 25mm long as this needs to pass through a boxwood ring and then into the clock barrel. Sand and seal.





9



10



11



12



13



14



15



16

9 The clock barrel blank is now turned to round between centres and after forming a spigot mount in your chuck. Face off the end and form the recess into which the clock movement will be held. As this requires patience and accuracy keep offering the movement during this process. While this must be held firmly it must also be able to be taken out to replace the battery when required. A line has been drawn 20mm in from the front and another near the tailstock end. Two holes have to be drilled on the first line to hold the column from the main stem and one to hold the finial. Use the appropriate drill bits (6mm and 5mm).

10 Take the blank off the lathe and drill the two holes as shown in the photo. I prefer to have the grain running horizontally when the barrel is finally mounted so take this into account when positioning the drilling points. Use the lathe's indexing system to do this accurately.

11 Remount the blank in the chuck and turn to the final shape as far as the drilled holes. Sand and seal.

12 Reverse chuck and finish shaping the back. I like to form a decorative section with a few V cuts at the very back centre, before drilling a 5mm hole using a Jacobs chuck in the tailstock. A small finial in boxwood will be turned to insert into this hole. I feel this adds character to the back.

13 Turn two rings in boxwood to be placed on top and underneath the clock barrel as shown in the final assembled photo. Use the appropriate size drill bits to make holes into these rings (6mm and 5mm).

14 Turn a small decorative finial in boxwood to be inserted into the back of the clock barrel. Sand and seal.

15 This final turning shows the top finial being turned and a long 5mm dowel is formed which will pass through the boxwood ring and into the top of the clock barrel. Sand and seal.

16 All pieces are finished and before final assembly I find it worthwhile to place all turned parts together to make sure that all parts fit well. Any slight alterations can now be done before all parts are glued together with a good wood adhesive. Whichever glue you use be careful not to apply too much as it can ooze out and spoil the finished project. ●



Graeme and Mel with their Sweet 16

"And we like to think that's why people choose Robust lathes. The ergonomics, the build quality and the sturdiness allow you to concentrate on your work, and not the limitations of your tools."

Brent English, owner and designer, Robust Tools.

Every Lathe Tells a Story



Ask any woodturner about their lathe and you'll hear a story; who they got it from, when and where they picked it up, and perhaps even the reasons they chose it. We doubt you'd hear the same affectionate response about a belt sander.

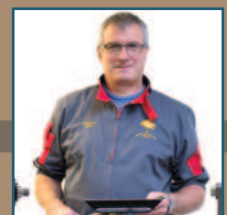
Why is that? We think that, much like you play a musical instrument, you "play" a lathe. You use all your senses to turn and you alone control the path of the tool. In contrast, you only "operate" a table saw. A lathe is a tool you create a lasting relationship with.

And we like to think that's why people choose Robust lathes. The ergonomics, the build quality and the sturdiness allow you to concentrate on your work, and not the limitations of your tools.

What's your lathe story?



In the EU, please see Ronald Kanne
in The Netherlands:
Tel: +31 653 173 580
Email: info@dehoutdraaierij.nl
www.dehoutdraaierij.nl



In the UK, please see Phil Irons
Tel: 01789 751284
phil@philironswoodturning.co.uk
www.philirons.com



Better by design. Enjoyed for a lifetime!

Email: info@turnrobust.com
Phone: 608.924.1133 • www.turnrobust.com

SUBSCRIBE TO **Woodturning**

NEVER
MISS AN
ISSUE

**Subscriptions start
from just £24.30**

Free early delivery
direct to your door

+44 (0) 1273 488005
www.gmcsubscriptions.com/woodwork

PHOTOGRAPH BY GUY ANTHONY BAILEY

Ahead of the curve





Provence-based turner Yann Marot shares how his work has become more and more creative over the years

In his 20 years as a woodturner, Yann Marot has moved from practical and traditional pieces to a focus on artistic expression – and devoted himself more and more to training up new woodworkers. As a sculptor he takes a mindful approach to creation, finding joy in everything he does – and he takes the same pleasure in his teaching.

‘I look for the joy in each movement and cut, and I like to carve and turn slowly and gently,’ says Yann. His work is all about curves, which provide inspiration and spark emotions for him. He says: ‘There are few straight lines in nature. I get strong feelings, puffs of beauty, when I look at movements in sand, undulating seaweed, gently bending reeds, or taut electric cables. Nature and the human body are infinite sources of inspiration.’ Photography, basketwork and ceramics also feed his creativity.

Yann was featured in *Woodturning* magazine in 2011, and since then he has moved to Aiguines in Provence to become the lead trainer at the Escoulen school – which is dedicated entirely to woodturning – where he has been working part-time since 2014. ‘I love teaching and doing demonstrations,’ he says. ‘I feel like I’ve learnt a lot by analysing what I’m doing so that I can pass it on to others.’ His year is split into two, with one half spent teaching week-long sessions on various topics and the other half devoted to a five-month-long professional training course. Yann says: ‘Eleven people come to train as professional woodturners. Over 20 weeks, all aspects of the career are covered. It is a human adventure each time.’ He adds: ‘Finding balance in work is always hard, and for several years I feel like I’ve achieved it – teaching without forgetting myself. I will always be a craftsman. I often have the impression that I’m playing an instrument, which is woodturning. My creative work is a space where I allow myself to work freely, and I’m always pleased if emotion gets the better of technique.’

©ALIX RAISON

'I have learnt to love sharpening. It's a kind of meditative moment and is very similar to carving. I like those smooth and repetitive movements. I sharpen freehand with a simple grinder and a hand waterstone: freehand because it's fast, and most of the time sharpening depends on what I am turning'

EARLY YEARS

Yann was born in north west France in 1974 to parents who were farmers, and from an early age loved spending time in his father's workshop and felt he would like to work with wood and hand tools. After school he got a diploma in wood engineering, during which time he also took an evening sculpture course, where he discovered the lathe. He started out trying to build his own lathe directly on to the axis of a washing machine motor – which he says is very dangerous, and not something he would advise. He met other professional woodturners through AFTAB, the French Association of Woodturners, and was able to learn from them.

'My first project was a carved wooden shoe. When I was 20 years old, I picked up a piece of chestnut fence post and decided to carve my beloved Kickers. With the help of one or two bad chisels, I managed to do something that wasn't too bad. Then, encouraged by my parents, I decided to join an evening sculpture course and my teacher said the shoe was a good start. With his help, I carved a second shoe, and that is where my adventure began.'

Yann says his 'independent spirit' drove him to set out to make his living as a solo craftsman, especially because, during his studies in wood engineering, 'I often felt disconnected from the materials and the final project. I needed to have a creative job, full of different tasks. I also needed to have my own space,' he says.

He now describes himself as a 'craftsman woodturner', whose time outside teaching is split between making commissioned items for cabinetmakers and his art. Typical commissions include table legs, balusters, stair posts, frames and drawer posts, while his art is more centred on vases and shapes. 'Over the past 20 years creation and teaching has become more and more important,' he says. 'I still make production woodturning and traditional items, but much less often.'

SPACE TO CREATE

Yann is now in his fifth workshop since he has been a woodturner and it is the second he has built from scratch – 'it's the best one I've had yet,' he says. The 45sq m wooden building, which he built near his Provence home over five months in spring to winter 2019, is south-facing and very light. 'It's very important to me to feel good in my workshop,' Yann says. 'It's also important for it to be near my house so it fits in with family life and day-to-day childcare. It's a very personal, intimate space, in which one lives just as much as one lives at home. Sometimes I work under the eaves outside, it's really nice.'

He uses two lathes, a big bandsaw and a drill press. For traditional spindle turning he chooses a spindle roughing gouge, double bevel spindle gouge and a bedan for all convex shapes. 'It is an extremely effective tool and very precise. It is the tool my teachers used during my apprenticeship, and I adopted it – mainly a 12mm and a 5mm bedan,' he says. 'Above all I like my work to be varied, and generally it is.'

ON TOOLS

'For traditional between centres turning I use the spindle roughing gouge, double bevel profiling gouge and skew chisel for all convex shapes. For green wood I use 10mm and 13mm bowl gouges with long wings and a reinforced 13mm spindle gouge sharpened long with a small double bevel of 2mm. I like to finish the outside of my pieces with a triangular scraper of 32 x 7mm, which is very effective, both for refining the curve and the surface finish. For hollowing out I use homemade scraper plates, of the type developed by Trent Bosch.

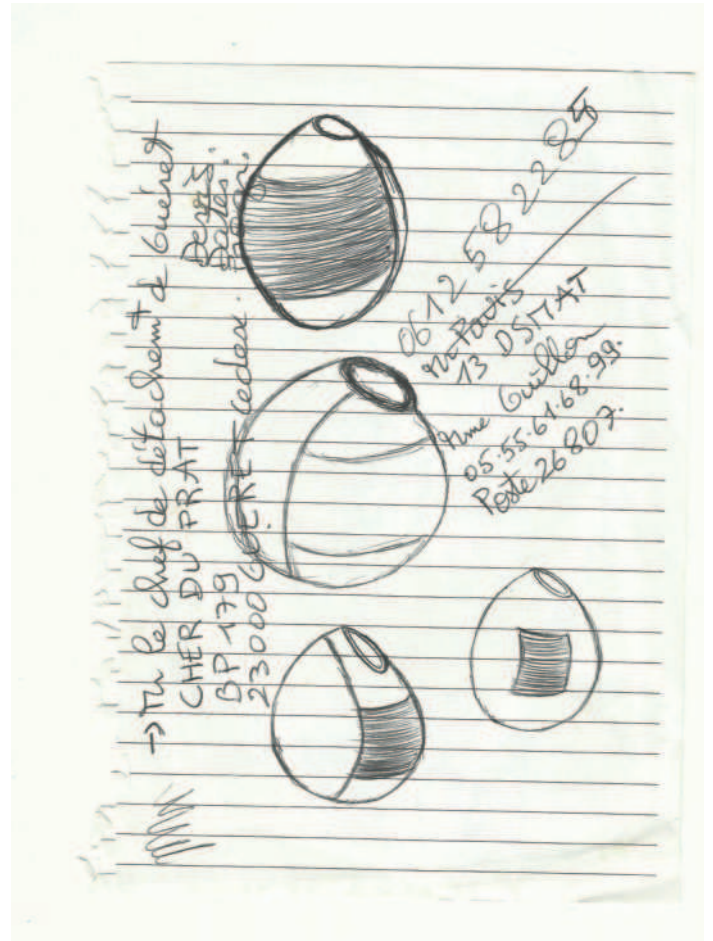
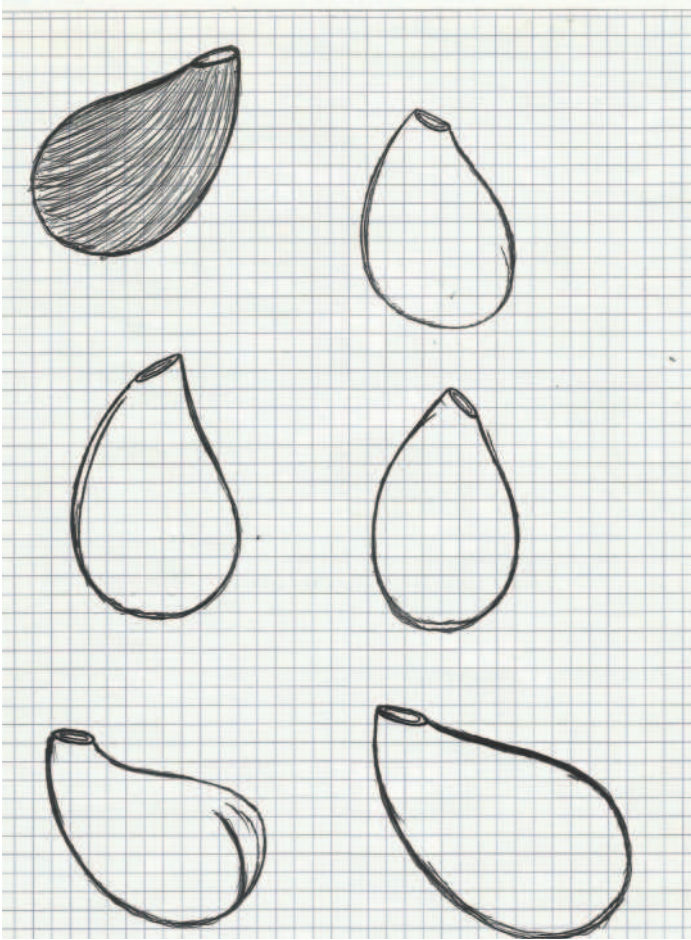
'More and more, I'm looking for tools that don't make any noise, so I prefer hand tools such as Japanese saws and gouges. Wherever possible I avoid noisy, dangerous or rough tools, and I take great care and time over sharpening,' Yann says. He adds: 'I have learnt to love sharpening. It's a kind of meditative moment and is very similar to carving. I like those smooth and repetitive movements. I sharpen freehand with a simple grinder and a hand waterstone: freehand because it's fast, and most of the time sharpening depends on what I am turning.'

His favourite woods to work with change over the years, but at the moment he loves working with oak and fig. 'I like the character of fig,' he says. 'You have to turn it perfectly green and the distortions that happen during the drying process can be spectacular. Fig is like a lion I'm trying to tame. There is a strong poetry in this wood.' He loves working with green wood because of the uncertainty about what will happen during the drying process, and always gets an adrenaline rush stepping into his workshop in the morning, wondering how yesterday's pieces will have changed overnight.

The finishes he chooses depend on the wood. 'I like to bleach light woods like fig or maple. Sometimes I like to sandblast. In both cases I am using a spray matt lacquer to finish the pieces. For a very nice, carefully sanded piece of figured wood I will use hard oil. Oak can be finished in different ways, such as burning or ebonising, and my black pieces are finished with alcohol stain.' He adds: 'In any case, I prefer to let the wood show. I choose the finish to emphasise something particular like distortion, grain or colour.'

FINDING A BALANCE

When Yann works on commissions he likes to have plenty of direct contact with his clients, ideally meeting them in his workshop where they can see examples of his work as well as how he works. He then works from plans, diagrams or photos. 'Many craftsmen maintain this kind of healthy commercial relationship,' he says, 'but I don't just work on commission, I also make big and small pieces which I sell directly through shows and exhibitions, I attend two or three each year.' Yann's most recent exhibition was in October and November with the Wood Symphony Gallery, which hosted his Around the Curve solo show, featuring more than 20 pieces he had created over the past two years. 'In that case I have total creative freedom – or nearly.'





©DANKA OSHAK



he says. 'Even though they're tiring, these events nourish me because they give me feedback on my work and, above all, the chance to meet other craftsmen.'

He also sells to galleries and interior designers, and in recent years has put a lot of time and thought into photographing his pieces. 'It's a skill I'm really passionate about,' he says. 'It's difficult to delegate photography of your own work – I want the photography to contain the intention I had when creating the piece.'

When he is designing his sculptural pieces Yann sometimes sketches and sometimes models in clay before shaping the wood. 'I often make a brief series of pieces,' he says. 'In these little series, one or two pieces will stand out from the rest, and those will lead me on to the next series. For me, working by trial and error is the definition of creativity. I've learnt to be confident with curves, and I don't work in a mathematical way at all. When I'm working on a shape, there will be a moment when something happens – an emotion, or a little breath of beauty. I need to give myself up to those feelings.'

Yann's favourite piece he has worked on is called *Ronde* (Round). He says: 'It's a long story which started with *The Three Brigands*, a group of three conical boxes named by my son, after we read him the Tomi Ungerer story of the same name. Next came *The Three Brigands' Girlfriends*, which were rounded shapes. After having made quite a few

of these drop-shaped boxes, I wanted to twist them to give them movement. After several attempts – not all successful – and some clay models, I created some called *Diabre de Goutte* (Devilish Drop) and made a little collection of those. To continue working in that shape, I then thought of a vase that I spent a long time designing, and so it came to life. I love this piece because of its history and its simplicity. It is a piece which succeeded well, and I only say that very rarely.'

Looking ahead, Yann hopes to carry on working and staying well as he has done for the past 20 years. Most of his current projects are in fig wood. 'I have found several beautiful, inspiring pieces and am turning them into bowls, vases and sculptures – it's a good, creative time,' he says. 'I feel the need to communicate and disseminate my work so I spend a lot of time taking photos, publishing them on Instagram and working on a new website.'

He adds: 'I feel like I've still got a lot to say. When I started woodturning, I started unwinding a ball of yarn and I keep pulling on the strand to tell a kind of story. It's a way of expressing myself. I hope to continue along the thread of my work without really knowing what will happen next. Wood continues to inspire me. I get ideas and they grow.'

Instagram: @yannmarot
yannmarot.com



'For me, working by trial and error is the definition of creativity. I've learnt to be confident with curves, and I don't work in a mathematical way at all. When I'm working on a shape, there will be a moment when something happens – an emotion, or a little breath of beauty. I need to give myself up to those feelings'



WHY-AYE WOOD

WOODTURNING SUPPLIES

Cockenzie House and Gardens
22a Edinburgh Road, Cockenzie, East Lothian. EH32 0HY
Tel:- 07730791935
Email:- info@whyayewood.co.uk

Visit our online shop for mail order

www.whyayewood.co.uk

We stock a range of:-
Bowl Blanks
Spindle Blanks
Pen Kits
Project kits
Crown Woodturning Tools
Chestnut Products
Charnwood Products
Milliput
We are increasing our range daily.



Follow us on



Open Times
Monday to Saturday
10am - 3pm
Sunday Closed
All major credit cards accepted



"Keeping wood turning at different speeds since 1997"

KITS AVAILABLE FOR THE FOLLOWING:

- | | | |
|----------------|--------------------|-----------------|
| • Arundel | • Record CL0 | • Turnstyler |
| • Axminster | • Record CL1 | • Tyme Avon |
| • Coronet | • Record CL2 | • Tyme Cub |
| • Fox | • Record CL3 | • Union Jubilee |
| • Jet | • Record CL4 | • Union |
| • Myford ML8 | • Record DML24 | • Graduate |
| • Myford | • Record DML305 | • VB lathe |
| • Mystro | • Record RPML300 | • Viceroy |
| • Minimax | • Record Scheppach | • Vicmarc |
| • Nova 3000 | • Selbix | • Wadkin RS |
| • Nova 1624-44 | • SIP | • Wadkin |
| • Poolewood | • Sorby | • Tradesman |
| • Perform | | • Warco |
| | | • Woodpecker |

S. Haydock

Spring Bank Farm, Goosefoot Lane, Preston, PR5 0UU

Tel: (01254) 851918/07849 725195

www.haydockconverters.co.uk
haydockconverters@gmail.com

TIMBERMAN Woodworking Supplies

South Wales~ Bronwydd, Carmarthen, SA33 6BE
Tel: 01267 232621 / email: sales@timberman.co.uk

LAGUNA Stockist of Local & Exotic Hardwood Timber & Bowl blanks,
charnwood Woodworking Machinery, Woodturning Lathes,
Robert Sorby Powertools and Much more....

Supplying Woodturning lathes and Machinery for over 40 years

Open: 9.00am to 5.00pm MON-FRI
9.00am to 12.00pm SAT

SALES ~ SERVICE ~ REPAIRS ~ ADVISE

• VICEROY •

5/8" & 1/2"

Shaft Available

- We do not scrape, we cut
- We cut knots, end grain, side grain
- We cut bark inclusions
- We like controlled precision cuts
- We cut exotic, dense woods

HUNTER
TOOL SYSTEMS



How-To Videos

HunterToolSystem@gmail.com

www.HunterToolSystems.com

INSPIRING & INFORMATIVE

FURNITURE & CABINETMAKING



Furniture & Cabinetmaking
Design and inspiration

WOODWORKING CRAFTS

Hand, Power & Green Woodworking • Turning • Restoration • DIY



Resin casting Plane making Louvre shutters Tool storage Dowel joints
Illusion furniture Ring box Reclaimed wood Floor lamp

Woodworking Crafts
For craft enthusiasts

on sale now for £5.99 in stores, online
or by calling 01273 488005

(plus P+P)

GMCSUBSCRIPTIONS.COM/WOODWORK

Made in USA



STAINLESS BOTTLE STOPPERS

TURNING KITS, ACCESSORIES, AND MORE

NEW!

**Brass
Hammer
Kits**



**Patented
Bottle
Stoppers**

Grade 304
Stainless Steel
Stoppers



***Largest selection and highest quality of
Made in USA bottle stoppers and turning mandrels!***

**Over
50 Styles
of Stoppers
Available
Online!**

Decorative End Loops

- Key Chains
- Christmas Ornaments



**Now
available
in brass**

**Honey
Dippers**
PATENTED



**Grade 304
Stainless
Steel**

**Stainless Steel
Bottle Cap
Openers**

PATENT PENDING

**With
Magnet**



**Largest Selection of
Turning Mandrels**



UM Mandrel using Bushings!

Similar to pen turning, our unique mandrel gives you the ability to use bushings for different turn to diameters. Currently offering four different size bushings. Plastic washer included with each bushing. We will have a mandrel to fit your lathe!



**MADE
IN USA**

**Brass
Knurled Inserts**



**Large Assortment of
Turning Blocks**



Stopper Starter Kits
Several to Choose From

Available in the UK at


G&S Specialist Timber
TOOLS AND MACHINERY
www.toolsandtimber.co.uk

www.stainlessbottlestoppers.com

Phone: (570) 253-0112 • Fax: (570) 253-9606 • sales@stainlessbottlestoppers.com

Sovereign balls – rediscovering the rediscovered

Andy Coates looks at Sovereign balls – Part 2 of 3



PHOTOGRAPHS BY ANDY COATES

In the first of this three-part series on Sovereign balls we left the ball part almost completed, ready to move on to making the box. This version will have a simple push-fit lid, the poor relation to the threaded lid. I also mentioned a further option, which is

completely divergent from the historical method and uses a neoprene 'O' ring to help hold the lid in place. I will cover this after making the box in the push-fit version for this Sovereign ball.

◀ Making the box

1 Mount the box section blank and rough down to a 3in-long cylinder precisely $1\frac{1}{2}$ in diameter, leaving a tenon suitable for your chuck at the tailstock end. Re-mount the blank on the tenon. At the tailstock end of the blank mark $\frac{3}{4}$ in back from the cleaned-up face and turn this down to a stub tenon of $\frac{1}{2}$ in diameter. Bring the ball blank up to compare the length of the box as a final check.

2 Check the diameter of the wider portion of the box with callipers. It should be $1\frac{1}{2}$ in all the way along. Put a very slight taper on this portion, the smaller diameter being at the end with the $\frac{1}{2}$ in tenon – it needs only to be $\frac{1}{16}$ in along the length, no more. Now test fit the ball blank on to the box with the lathe turned off. If the wider portion of the box does not yet fit into the $1\frac{1}{2}$ in hole then gently abrade the wider portion and keep checking for fit. It needs to be tight but not binding, and the tightest part should be the very last fraction of the box.

3 Turning the lathe on and off and waiting for the last moments of rotation, the ball blank can be pushed on by hand and it should compress and scorch the stub tenon. This will indicate where you need to adjust the diameter to get a perfectly snug fit. Once done, gently abrade the stub but do not take the diameter at the outer end down. This needs to be tight in the ball.

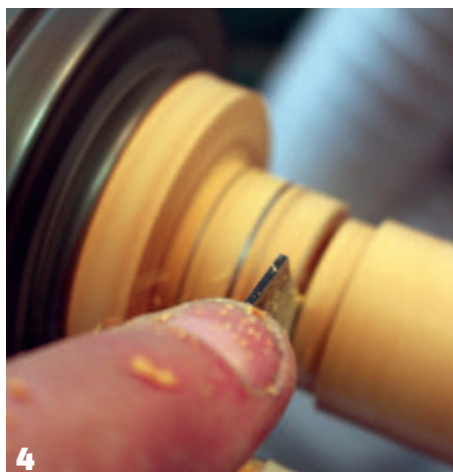
The box should now fit tightly into the ball blank and the top marked line on the box should be flush with the edge of the ball blank. You should also feel it seat on the step at the base of the hole.

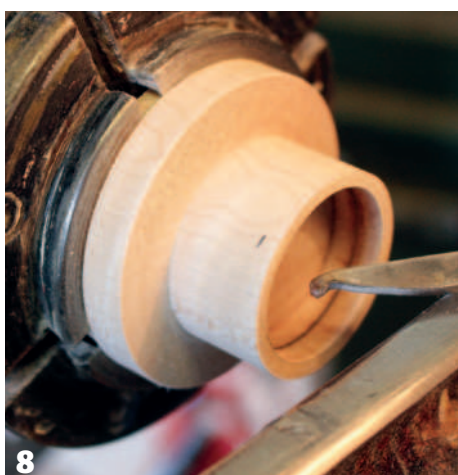
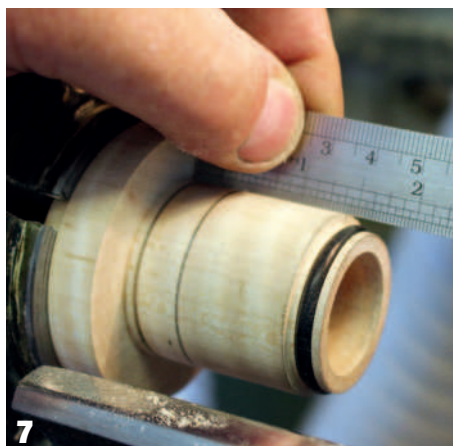
Finishing the box

4 Mark the lid section of the box off. This should be as for any box, so work on $\frac{2}{3}$ of the overall length of the widest section of the box. Mark this point and add the thickness of your parting tool to the left of this mark. Increase the distance at the headstock end by the same amount and mark a new parting point. Turn a shallow tenon on the lower portion of the box, $\frac{1}{8}$ in deep, and part the bottom section off from the headstock side of this tenon using a slim parting tool.

5 Measure the diameter of the tenon you just turned and make a recess in the lid section to fit it snugly. Turn the interior of the lid away, abrade to a finish, and make some decorative marks, or add texture to complete the interior. Part the lid off just proud of the re-made parting-off point.

Mount the bottom section of the box in O'Donnell jaws or similar, ensuring it is running true. The stub tenon will be safely housed inside the chuck jaws. Hollow the box, either with a spindle gouge or using a 1in Forstner to drill out the interior to 1in deep. Abrade and finish the interior avoiding the tenon. Remove the box from the chuck and fit the lid. Now slide the whole box into the ball blank. (NB: At this point the grain should be fairly close, but due to the faults found in the blanks it was not perfect. Yours should be closer.)





Alternative lid design

While the push-fit lid is a common method of fitting a lid, it could prove to be too loose for a box containing relatively weighty coins, so an adaptation could be used to ensure a secure lid fit.

6-9 Having cut the tenon for the lid on the base of the box, a square-cut channel is cut in the dead centre of the tenon. I made mine suitable for a neoprene O ring just too small to fit over the tenon without stretching it. The channel is deep enough that the O ring sits to just over half its thickness when stretched over the tenon and seated. The O ring can be glued in place once the box is completed. CA glue is suitable for this. Once the O ring is fitted to the tenon measure its precise location in relation to the box tenon and transfer these dimensions to the interior of the box lid when you get to that stage. Mark the position of the O ring depth and width on the interior of the lid and cut a channel $\frac{1}{3}$ of the thickness of the O ring deep in the interior of the lid. I used a modified tool, essentially just a tiny off-set scraper.

When the box lid is fitted to the base the O ring will compress slightly and seat itself in the recess in the lid, providing an improved fit and hold. This method is optional and can be disregarded if it seems too much work.

Completing the ball

10 Re-mount the ball workpiece with the box fitted. Abrade the whole of the ball to a finish. At this point re-mark the equator. Using your indexing system or a centre-height marking jig, mark the quadrants of the ball – this will aid marking the bosses later. At this point I like to turn the first boss feature. A circle with a $\frac{1}{2}$ in diameter is scribed in pencil – this will then match the same $\frac{1}{2}$ in circle naturally formed by the join between the tenon stub and the ball at the opposite pole. I slightly dish this $\frac{1}{2}$ in circle out. You also need a circle scribed at the $\frac{1}{2}$ in diameter indicated by the join between the lid of the box and the ball body – you will make these two marks for each of six 'faces' of the ball. These two marks are usually cut with a simple V-cut to disguise the joints.

11 The features you use between and around these two mandatory features is entirely up to you, but they must be identical on each face, so make note of what you do.

12 The lid of the box should be extending slightly around its periphery, with only the dead centre of the box lid on the same plane as the curvature of the ball. With a freshly sharpened 10mm spindle gouge, turn this excess material away until it matches the curve of the ball and the template fits perfectly. Now work on the stub area, working the curve closer to the join formed between the ball and the $\frac{1}{2}$ in stub section. At this point it is safer to stop the lathe and cut the ball off the mounting tenon using a small pull saw. Ensure you leave enough waste to complete the curve.

◀ Completing the bosses

13 Mount the jam chuck you made earlier and check the fit of the ball. All being well the ball will jam in the chuck tightly at just behind the equator of the ball. Aligning the ball accurately is of paramount importance and great care should be taken to get this right. The pencilled equator and quadrant marks will help here. Once you are certain all is aligned, gently rap the ball into the chuck with a soft mallet and check it is aligned. With practice this process gets easier. When the lathe is turned on, the dot formed by the cross of the equator line and quadrant mark should be stable. If it isn't the ball is misaligned and will need adjusting.

14 & 15 The first mounting is with the stub tenon out so that you can remove the waste and complete the ball. Cut very gently and check with the template that all is true. Once the waste is removed, scribe the $\frac{1}{2}$ in and $1\frac{1}{2}$ in lines, cut the V-cuts and then the further features and texture. Remember that these bosses are simply devices to disguise the two join lines for the box top and the stub tenon. How you design your bosses is not important – that they are identical to each other is vitally important.

NB: If you find the box section moves inwards due to bevel pressure, the opposing end of the box can be secured with a cross of firmly applied tape.

Once completed, abrade any areas you are able to and remove the ball from the jam chuck with a sharp rap of the mallet. Re-mount at the next quadrant mark and continue the process until all six faces are completed.

The completed Sovereign ball

16 & 17 The Sovereign ball can now be oiled and finished. When the box is slotted in you should not be able to see which two bosses hide it, and there is the novelty, the puzzle, of the box. Apply thumb pressure to the stub tenon boss and the box should eject slightly, revealing the secret of the ball. You will note that, as a poor woodturner I had to substitute £1 coins for Sovereigns, but you get the idea. At present value the ball will hold around £7,000 of sovereigns. Or £8. I know my place...

These are difficult things to make well, and I suspect you will make more than one before you are content, but I promise you that it is worth it. People will love them and you will love the sense of accomplishment when you complete one. If nothing else you will ensure that a wonderful object continues to be made and enjoyed, and the legacy left by the unknown originator and his worthy followers, Messrs Jones, Batty and Berkeley, will be extended. Have fun.

In part three of this series we will look at using a threaded lid and further decorative enhancements, including adding cast pewter bosses to the Sovereign ball. ●



Want to see the biggest display of lathes for sale in the UK?

Give us a call to visit!

Simon on 01206 233334



Stockist of:

LAGUNA TOOLS UK

VICMARC®
WOODTURNING LATHES CHUCKS AND ACCESSORIES

ONEWAY
MANUFACTURING
Superior Design, Legendary Quality

www.hopewoodturning.co.uk



Hogger provide the best in end grain hollowing tools

Little Hogger



Pro Hogger

Little Hogger on a bar tipped at 25 Degrees used with pull cutting and the Pro Hogger is mounted on a round bar allowing the experienced turner to find his sweet spot.



Cutters available for many of the carbide hand tools made today.

Check out our nano carbide cutters on **AZCarbide.com**

We ship internationally

Woodturning

THE WORLD'S LEADING MAGAZINE FOR WOODTURNERS

Follow us on Instagram



Pat Carroll



Richard Findley



Richard Findley



Pat Carroll

 @woodturning__magazine

Paul Howard Woodturning

www.paulhowardwoodturner.co.uk

Fluting Jig

Routers from 42mm to 65mm can be fitted as standard or other tools with a parallel collar from 65mm down can be fitted with a simple ring adaptor

£159.00 plus P & P

Index System

Index plate 60 48 36 14 hole pattern spindle sizes to suit most lathes. Unique position clamping system.

£55.00 plus P & P



Sphere Jig

Standard Jig

£187.00 Plus P & P (UK £15.00)

With Dual Round Bed Bar Adaptor

£197.00 Plus P & P (UK £15.00)



Spheres up to 300mm

Diameter depending on capacity of lathe.

Suitable for flat bed and dual round bed bar Lathes.

Riser Blocks for Lathes from 125mm to 250mm spindle height included. Additional risers can be fitted

Carbide Cutter for consistent results.

Self centring with disc or centring plate fitted

Tel 01621 815654 Mob 07966 188559

MDI Woodcarvers Supply

Embellishing Supplies

Ram Micro-Motors

Colwood Woodburners

Saburr Tooth Bars

King Arthur Tools

SS Nile Bottle Stoppers

Cup Burs 1mm to 15mm

Iridescent Powders

Burs, Burs & More Burs

USA and Canada Call 800-866-5728

www.mdiwoodcarvers.com

PO Box 4, Pittsfield, ME 04967 USA

Embellished turning by Sammy Long

Singapore ball

For this month's Editor's Challenge, Richard Findley is tasked with turning this fascinating puzzle



My challenge this month is to make a Singapore ball. I have been aware of these for many years but have never even considered making one. It's an interesting puzzle where small points protrude from a ball, but the points have enough space to move around and hide within their holes, so, despite its potentially prickly appearance, it will always be safe to touch. Even before researching it more closely, I can tell it's going to be a fiddle to make.

The place to start my research is David Springett's excellent book *Woodturning Wizardry*. Amazingly, the Singapore ball is one of the simpler projects in the book – but don't let that put you off. If you enjoy making intricate items that will have other woodturners and non-turners alike scratching their heads, then this is for you.

I don't want to simply lift David's article straight from the book, but it will be an invaluable companion as I go about this challenge.

As with any new project or challenge, I look at the project and mentally break

it down into stages; this is undoubtedly the best way to tackle such an apparently complex job. The simple parts for me are going to be turning a ball and turning the little spikes – the challenge will be marking out the holes and holding the ball to drill them out.

Making a start

Initially, I have a lovely piece of walnut lined up for this project, but when I realise that I need to show the marking-out for the holes, drawn clearly on the ball in the photos for the article, I discount it as walnut and pencil marks are a tricky combination. I root through my timber pile again and find a suitable board of steamed beech which will do the job perfectly.

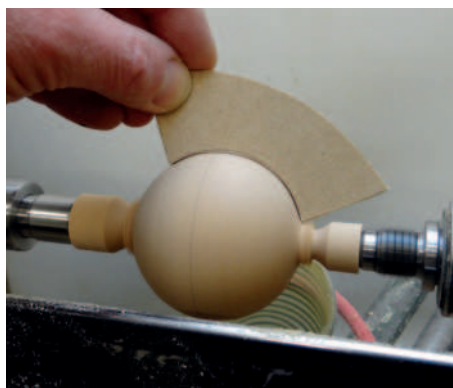
The original idea of the puzzle is that it all appears to be made from a solid piece of timber, so the spikes are made from carefully selected wood from the same board. I have, however, seen them made with contrasting-coloured spikes, which has quite a striking look, so I contemplate

making the spikes from walnut, but decide to stick with it all being beech for this first attempt.

The project is based on using a 62mm diameter ball, so I cut a blank from the 75mm-thick beech around 100mm long and mount it between centres. This can be turned by hand, as I recently described in the kendama article in *Woodturning 350*, where I used a spindle gouge and regularly checked it against an MDF template. The alternative would be to use a jig of some sort. I have the Paul Howard sphere jig, which I use for a regular production job of hemispherical boxes, but ironically, I've never actually used it to turn a complete sphere. I turn the sphere by hand to a little over size and set up the jig, which makes producing a perfect sphere an absolute breeze. This jig uses a little carbide cup cutter and leaves a surface that is easily perfected with abrasive. In David's book, he describes how to make a homemade version of a sphere jig, which is fun for those who enjoy jig making.



Turning a ball freehand



Checking progress against a template



Using a sphere jig

Usually, when making a sphere, the majority of it is turned between centres and then the little stubs at each end need to be turned away by rotating the sphere between wooden cup centres. But, planning ahead, I realise that the Singapore ball has a hole drilled in the top and bottom, so as long as the remaining saw marks are no bigger than the 9mm holes I will be drilling, there

will be no need for the secondary mounting. The sphere jig does leave fairly large waste sections on each end, but using the template and a sharp spindle gouge, I am easily able to continue the cut around the curve of the ball down to a small nib. 9mm is plenty of wood to safely hold a 62mm ball, especially in close-grained wood such as beech.



The sphere jig can't get right round the ball



Extending the curve by hand



The finished sphere showing the cut-off area

Marking out

The marking out is part of this process that makes me slightly nervous, because it can be quite mathematical. I read David's instructions for setting out, then read them again. Despite his clear, practical directions, I have always found that as soon as mathematical terms are used together in a sentence my brain starts to shut down. After reading a few more

times and trying my best to visualise it all, I decide I need to just crack on and have a go.

The first advantage I have with my method so far is that I can clearly identify the ends, or 'poles', of my sphere. I find visualising the sphere as a globe, with poles and equator, is great way to keep track of things.

The finished ball will have 32 holes drilled in it, but I need to start with 12 equally spaced points around my sphere and a compass is the best tool to do this.

The first bit of maths I need is to find the setting on my compass, which is the diameter of my ball, 62mm, multiplied by 0.526, which is 32.612 – I think we can call it 32.5mm between friends.

Where does 0.526 come from?

David simply says the 'vertex separation is 0.526' but I literally have no idea what that means. I guess it doesn't really matter because using this number achieves the required result, but I like to at least try to understand these things. Luckily, my best mate is a professor of physics, so I give him a call, as I always do when something about maths or science puzzles me.

Because I need 12 equally spaced points around the sphere I need to imagine a shape inside the sphere with 12 points. Imagine a cube within a sphere and you have 8 points (the points of a 3D shape are called vertices), but I need 12, so the shape trapped in the sphere is called a regular (as in, all sides are the same size) icosahedron which has 20 faces! To work out the straight-line length (vertex separation) between these points (vertices), I need to multiply the diameter of the sphere by 0.526.



Marking the first 'tropics' line



With the 'tropics' marked, I pick a point and draw another series of circles

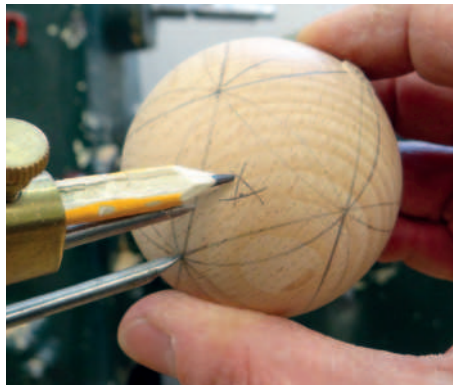
With my compass set to 32.5mm, I place the point on one of the poles and draw a circle, then repeat with the other pole. This gives me two rings around my sphere, a bit like the tropics on a globe, a little above and below the equator.

Next, I pick a random point on one of those lines and draw another circle using the same compass setting. Where this circle crosses the line I am using, I need to place the point

of my compass and draw another circle and repeat until I get back to the start. This gives me five circles. I then move to a point where one of these circles crosses the other 'tropic' line and repeat, which gives me another five circles. If every point has been used, geometric patterns that resemble a flower will cover the ball and there should be 12 equally spaced points.



There are triangles in the pattern and the centre of each needs finding



Using my compass to find the centres of the triangles



Marking out complete

With all circles drawn a flower pattern emerges, giving 12 equally spaced points.

The Singapore ball needs 32 points though, so more points are needed. This time, I need to find the centre of each of the triangular shapes that have appeared in the pattern. By guessing this size, I set the compass and, from each of the three points that form the triangle, I make a light mark in the centre. If the guess is correct I get a cross, if it's a little out, I get a smaller

triangle, of which it is easy to find the exact centre. With the compass adjusted to be the correct size (I make it 20mm), I work my way around the sphere, drawing little crosses in the centre of each triangle. I confirm these little crosses with the tip of my awl.

The marking out is now done for 32 evenly spaced holes. No matter how many times I read and re-write this, it sounds terribly complicated, but in fact, with compass and sphere in hand, it is remarkably simple.

Jig

With my 32 points marked on the sphere, I next need to drill them and then slightly enlarge them to allow the spikes to move around freely inside. In David's book, there are very clear instructions for making the jig, which is essentially a hollowed-out block to house the sphere, and a securing ring, which holds the ball in place while presenting a face of it to work on. I have made a similar jig before for hollowing the spherical boxes I mentioned earlier.

I use a cube of 100mm pine, along with a piece of 100mm long '4 x 1', as it would have been in the old days, for the ring and some M6 threaded inserts and 30mm-long M6 countersunk screws.

I roughly round the cube on the bandsaw and mount it on a screw chuck. Once it is turned to a cylinder I move to the face and begin hollowing to hold the ball. I realise there is no need for the full 100mm of depth so reduce it to around 70mm, which makes it feel much more solid. I make another MDF template of the 62mm ball to allow me to monitor my progress as I hollow.

Satisfied with the fit of the ball, I mark, drill and fit the inserts into the edge of the jig. Next, I need to add the ring, so mark

the positions of the holes on the thinner piece of pine and drill them with an 8mm drill. They line up well so I screw the two parts together. I turn a hole through the thinner part to form the ring, open the hole out to around 45mm, then use my spindle gouge, as if I were undercutting the rim of a box, to hollow the inside of the ring. After a few test fits and a little adjustment, everything fits together well and the ring firmly holds the ball in place, while presenting a portion of the ball for me to work on.



Components for the sphere holding jig



Hollowing the pine block to hold the sphere



Fitting the threaded inserts



Beginning to hollow the securing ring



Relieving the underside of the ring to hold the sphere in place



Testing the fit of the securing ring



Drilling and hollowing

I place the ball inside the jig and fit the locking ring with the three M6 screws. It's a bit of a fiddle this first time, but I find that once a hole has been dealt with, I don't have to completely remove the ring to adjust it, just loosen the screws, move the ball and tighten again, so the process is actually quite easy.

I use a 9mm lip and spur drill, which gives me a lovely clean hole. I mark 15mm from the tip of the drill with a marker pen to give me a regular depth mark and line up the first mark on the ball with the tip of the drill. Light pressure from the drill bit holds the ball in place while I tighten the screws. I start the lathe and drill to the depth and slide the tailstock down the lathe bed and out of the way.

Each hole needs a little hollowing to allow the spike to move

around freely. In David's book, he grinds up a special little scraper to do the job, but having given it some thought, I can't see the need. I opt to use a 6mm spindle gouge and enlarge the inside of the hole as if hollowing a box or tiny hollow form, through a small hole. It is important not to touch the actual opening of the hole, this should remain 9mm at all times, but behind the visible hole needs to be a rounded pouch to house the spike. I cut the first a little cautiously, but having done one, I am certain this method will work just fine. I lightly sand around the hole with 320 grit and a red abrasive pad and stop the lathe. I loosen the three screws and roll the ball to the next position, lining it up with the tip of the drill as before and repeat.



Securing the sphere in the jig



Drilling the hole



Enlarging the hole with my 6mm spindle gouge

Some time later...

I get into quite a rhythm, drilling each hole and hollowing out behind it with my little spindle gouge. It takes around 80 minutes to do all 32 holes. In a few areas, I have accidentally cut through at the lower side of the hollowing and can see a little daylight between the pouches, but David points out in his book that this isn't a problem as the spikes make it impossible to see this once in place.

I give the ball a rub over with a red abrasive pad to ensure all pencil marks and fluffy shavings are removed and the ball is done.



The finished ball, with 32 holes

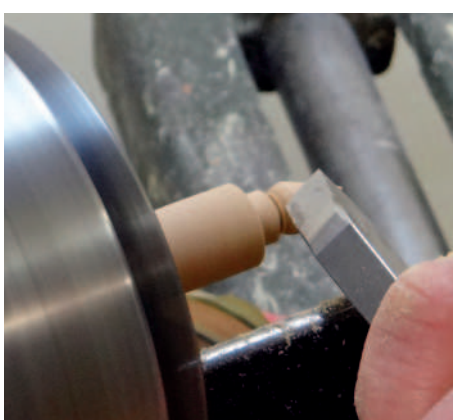
Spikes

The spikes are another slightly repetitive job, but as a production turner, a little repetitive work doesn't bother me. I cut some lengths of the same beech and hold one end in the smallest jaws I have for my chuck, the Axminster 'F' jaws. These grip an 18mm tenon, so I rip the blanks at 18mm square and around 100mm long. The spikes are a perfect job for a little skew practice, so using my preferred skew (which is, in fact, a 10mm beading and parting tool) I turn the wood to a dowel with a planing cut and with my Vernier callipers set to around 9.3mm I make a series of sizing cuts. I mark 15mm along the spindle and turn the end of the dowel to a point. I then round the base forming the little teardrop shape that I'm after. Before it gets too thin, I sand with 320 grit and my red abrasive pad and part it from the rest of the dowel.

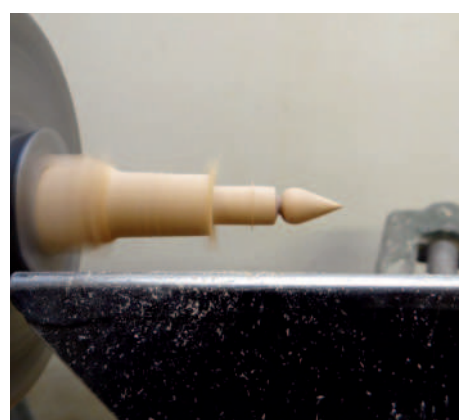
The rounded part of the teardrop is a little untidy, as parted work often is, but this will never be seen once in place in the ball, so I'm not too worried. Very gently, I test this first spike in a few of the holes. In most it is tight, in a couple it is a little loose. It is a fine balance between too tight and too loose with these spikes, so I decide to turn too many and make a few slight size variations. As this seemed to be a minimum size I turn most to 9.4mm, with a few going as big as 9.7mm. I'm certain that natural variation will occur with my turning technique and the sanding, but it means I should have enough spikes of enough variations that all of the holes will be filled with a suitable spike. From each dowel, I can turn three spikes before getting too close to the chuck.



Turning the point of the spike



Rounding the back of the spike



The teardrop-shaped spike before parting off

Later still...

A little short of an hour later I have 40 little spikes in a jar, which look a little like nuts or large seeds when gathered together.

During the turning process, I have been mulling over how exactly I will apply some finish to the components. I could leave it unfinished, but the very nature of the Singapore ball encourages it to be picked up and examined, almost played with, and it will soon get grubby from finger marks without some form of finish. Generally, I will either oil or lacquer my work. Spray lacquer seems like a good option for the ball as I can mount it on a long spike or screw into the base of one of the holes and spray it, which would be very simple and effective. But spraying or, more to the point, holding 32 little spikes, would be a real task. Oiling will be easiest for the spikes as they can just be dropped into a pool of oil, thoroughly coated and then laid out to dry. The ball would be fiddlier because of oil pooling in the holes, but with care, I think I should be able to deal

with this, so oil is my decision. I always keep old (clean) mayo and sauce jars as they are incredibly handy for mixing stains and finishes and cleaning brushes etc.

I put all 40 of the spikes in one such jar and cover them in oil, mixing them well with a gloved finger and leaving to soak while I sort the ball. This is just a case of wiping the surface with oil as I normally would. Initially, I try to avoid getting oil into the holes but realise that when the spikes are sitting back in their holes, I will be able to see somewhat into them, so apply the oil a little less carefully and, using a cotton bud, wiggle it around in each hole to make sure the oil is evenly spread without pooling.

Satisfied with the ball, I wipe off the excess and set it aside to dry. I tip the spikes out on to a piece of paper towel and dab them dry, swapping the towel a couple of times before leaving them to dry next to the ball. I apply four coats of hardwax oil in this way before assembling the Singapore ball.



Oiling the spikes



Oiling the ball

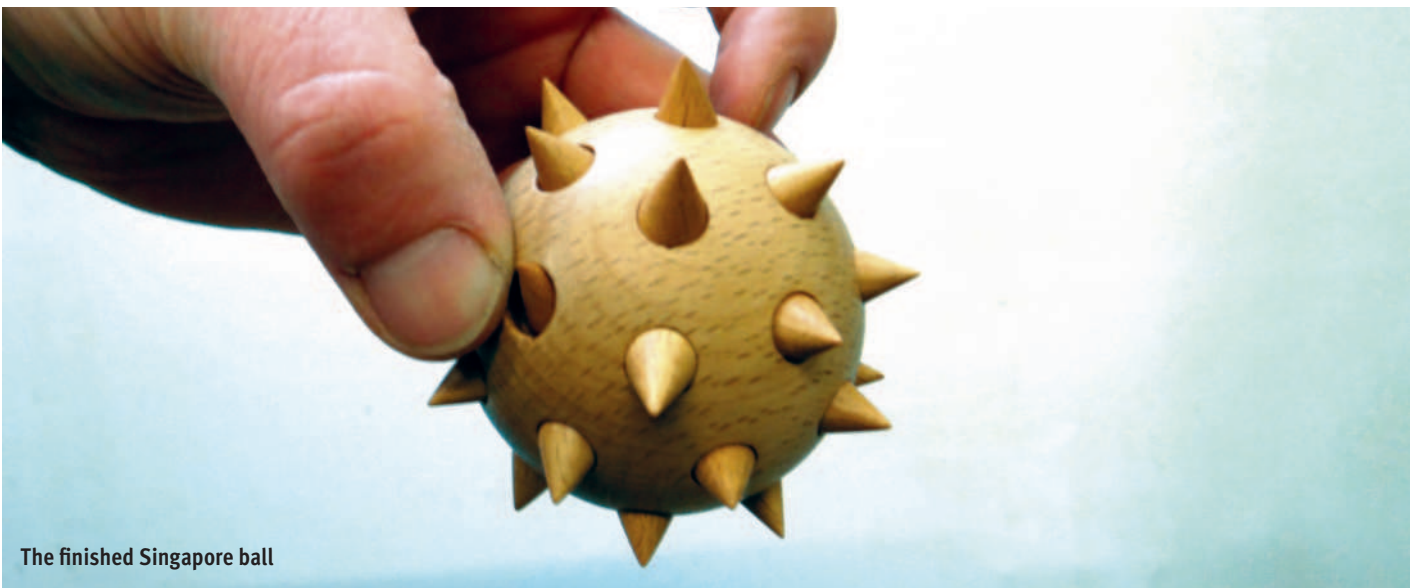
Assembly

Once the oil is dry, I give the ball a buff on the lathe with my buffing brush to even the satin sheen all over and make it silky smooth to touch. I wipe each spike with a cotton cloth before picking a hole to fit it into. Most go straight into the hole I choose, the odd one is a touch loose or tight and gets tried in another hole, before being rejected if it's not suitable. Amazingly, of the 40 I made, exactly eight are rejects and 32 fit in place with a firm push with my thumb and finger, each making a kind of pop as it goes into the hole.



Conclusions

I am really pleased with how this came out. A Singapore ball is something I've been curious about for years, although would never have tried to make one without a push, so I am pleased to have been challenged. I can see how some would find the repetitive nature of making this a bit tedious, but others will rise to the challenge and thoroughly enjoy all of the stages of making it, and I can confirm that the end result is well worth the time invested. Beech was a good choice of wood, anything softer may bruise around the holes as the spikes are pushed in. I've seen them made from a dark wood with light coloured spikes, perhaps a walnut and sycamore combination, which looked striking and I'm almost tempted to make another. Almost.



The finished Singapore ball

FOR ALL YOUR WOODTURNING REQUIREMENTS

GreenCast160

High biomass clear casting
wood turning epoxy resin



Clear epoxy casting resin produced with high biomass content from plant and vegetable origin. Ideal for wood turning, casting from 10mm to 100mm per layer. Ultra-low viscosity for best in class self-degassing. Inbuilt UV filtration system crystallisation & VOC Free.

GreenCast160 is a two-part epoxy casting system formulated with highly translucent components, designed for wood turning, river tables and jewellery where high finish is required. The ultra-low reactivity of GreenCast160 enables best in class sectional casting in one operation without a change of colour or excess heat build-up. You obtain a totally water clear polymer. This system is ideal for castings from 10mm to 50mm large mass or 10mm - 100mm per layer small mass.

**“Class leading environmental credentials
from plant-based origin”**

KEY FEATURES

Excellent UV stability
Casting up to 100mm in one hit
Excellent self-degassing
Water clear clarity
Hard wearing
Good resistance to thermal
and physical shocks
40% biomass content
100% solids VOC Free!
Machines very well
without overloading tools



Open 10am-5pm, Monday to Friday. Closed Weekends

www.toolsandtimber.co.uk

CALL, VISIT
OR SHOP
ONLINE

G&S SPECIALIST TIMBER

The Workshop, Stainton, Penrith, Cumbria CA11 0ES

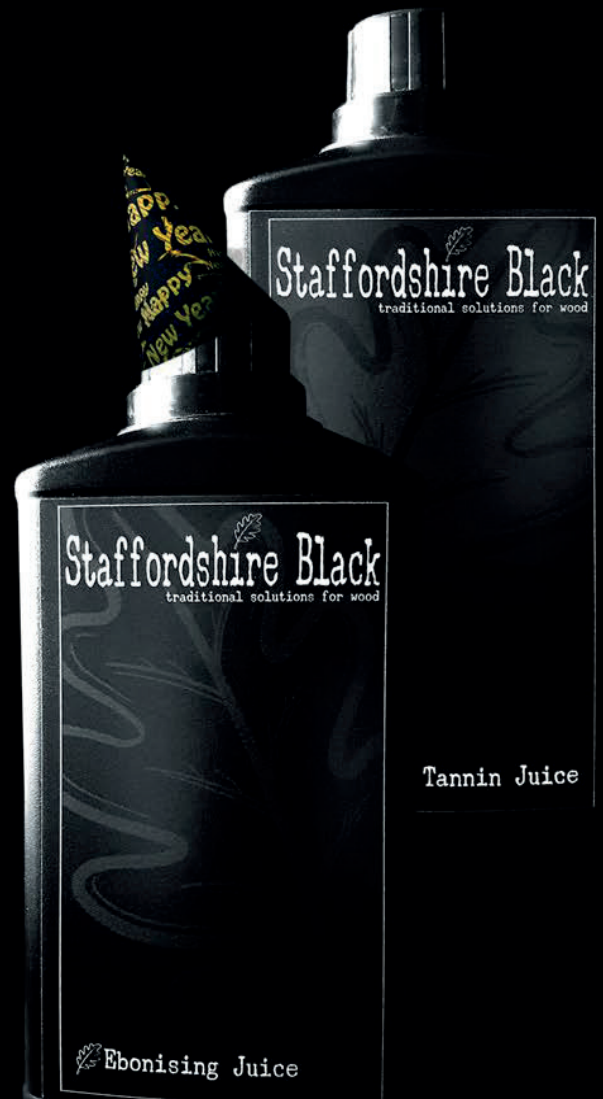
Telephone: 01768 891445 • Email: info@toolsandtimber.co.uk

2021

Hide in your workshop!

(it's safer there*)

staffordshireblack.co.uk



* Depending on what the new year brings, although hiding in your workshop may help you avoid future airborne nastiness it will offer minimal protection when it comes to zombies, asteroids, a new Ice Age, extraterrestrial activity, missile attacks or the return of the dinosaurs.

In theory, a full bottle of Staffordshire Black may be used as a weapon or barter item, depending on the situation. Stay alert. Stay safe.

ULTRA·SHEAR™

WOODTURNING TOOLS

by **Woodpeckers®**



Pen Mandrel System

- Complete mandrel system includes both drive and live centers.
- 12-Segment collet keeps mandrel shaft perfectly centered.
- Hollow drive and live center keep the support close to your work.
- Works with most bushings on the market. *Sold separately.*

Precision Pen Turning Bushings

- Precision Pen Turning Bushings made from Chromoly steel.
- Wear indicator shows remaining life of the bushing.
- Bushing I.D. engraved for easy identification.

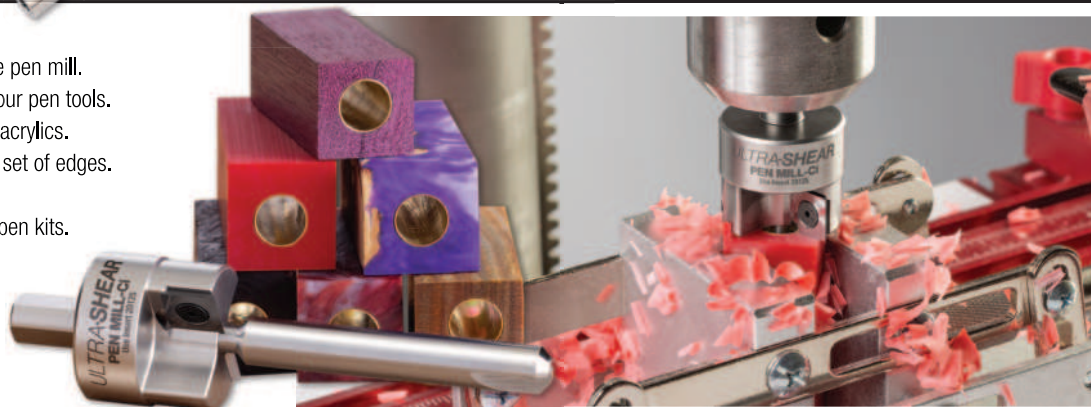


Pen Mandrel System.....**\$139.99**

Precision Pen Turning Bushings 11-Piece Set.....**\$119.99**

Pen Mill-Ci

- Carbide insert technology integrated into the pen mill.
- Same Nano-grain polished inserts used on our pen tools.
- Remarkably clean cuts in exotic woods and acrylics.
- Hundreds of clean trimming cuts from each set of edges.
- 4 Sets of edges on every pair of inserts.
- 12 Pilot/Reamer shafts cover most popular pen kits.



Pen Mill-Ci 13-Piece Set.....**\$169.99**



Parting Tool-Ci

- Insert wider than shank insures clean cuts and no burning.
- Fluted insert provides tear-free entry of the cut.
- Insert pocket includes specialized insert retention design.
- Fluted insert included; Optional square insert for flat bottoms.
- Same Nano-grain polished carbide as our turning tools.
- Kerf is just 3/32"; minimal cutting resistance and stock loss.

Parting Tool-Ci.....**\$79.99**

Woodturning Tools

- Nano-grain polished carbide inserts eliminate sharpening.
- Square profile for convex surfaces and roughing cuts.
- Round profile for concave surfaces and bowl hollowing.
- Detail tool creates crisp accents and sharp transitions.
- Patented shaft design enables flawless shear scraping.
- Full-Size, Mid-Size and Pen Tools cover every turning style.

Full Size Set of 3 Woodturning Tools.....**\$379.99**

Full Size Square, Detail -or- Round Woodturning Tool.....**\$139.99**

Mid Size Set of 3 Woodturning Tools.....**\$269.98**

Mid Size Square, Detail -or- Round Woodturning Tool.....**\$99.99**

Pen Size Set of 3 Woodturning Tools.....**\$219.99**

Pen Size Square, Detail -or- Round Woodturning Tool.....**\$79.99**

Master Set of 9 Woodturning Tools.....**\$799.99**



For more sizes & ordering options for these tools plus hundreds more, visit **Woodpeck.com**

Community letters

This month we continue to share some letters the we have received from our readers

A special thank you from Mark Baker's family

We want to express our thanks to everyone who has emailed, written in, sent gifts and contacted us since Mark's passing. We have been overwhelmed and comforted with the huge amount of support and kindness from around the world. It's given us such a wonderful insight into his life within the woodturning community. Thank you for being such a support to us in such difficult times. Sarah, Eleanor and Hannah Baker.

Avian des res



Awaiting occupancy

I was most impressed by Richard's article on the bird house that I decided to make one for our garden. I contacted Richard and asked him if he thought it a good idea to coat the inside of the box with Osmo and he said just one coat. I made a few design changes but this was to fit the project to the stock I had available, not because I was unhappy with the original design. I now have the new Dicky bird des res installed in my garden and awaiting occupancy. My thanks again to Richard for a great project.

Ben Dick, member of the Middlesex Woodturning association



Wood ID



Q: I had a piece of wood that is unknown to me and my colleagues and wondered if any of your magazine contributors could help? It is so good I wanted to get some more. Any help would be appreciated. Pictures attached. *Keith Davison*

A: Andy Coates was able to help with this one, Keith. It's holm oak, sometimes called evergreen oak. A lovely wood.



A plethora of colourful plates

So sorry to hear about the passing of Mark. All very sad, he will be missed by so many on the woodturning circuit. With all this interest in colour, I cannot believe it has really got so many turners interested... considering I was one of the early pioneers of all this in the 70s. Here are some of my plates.

Best Wishes. Bob Neill

Exclusive to www.hopewoodturning.co.uk

SAIT anti clog abrasive discs.



Excellent value 50 & 75mm abrasive discs in packs of x 10!

Very flexible and long-lasting abrasive. I have fully tested this abrasive and found it to be more flexible than indasa. Grits 80 to 600G

10 pack in 50mm £1.50

10 pack in 75mm £2.00

For an even bigger saving im selling in trade bags of x 100!

100 trade pack in 50mm £11.50

100 trade pack in 75mm £16.50



All 7 grits bulk buy:

**7x 100 trade pack in 50mm
£69.00**

**7x 100 trade pack in 75mm
£99.00**

SAIT 25mm wide x 25 metre rolls

Of cloth backed abrasive. Excellent for hand sanding!

Grits 80—400G

£15.00 per 25/metre roll

All 6 grits/rolls £81.00



Mirka Abranet ace 115mm wide x 10 metre rolls

Ceramic abrasive with Velcro backing. Said to be the best money can buy!!

Grits 80—600G

£39.50 per 10/metre roll

All 7 grits/rolls £260.00



TURN WITH EASE



Pat. No. D902968
Ci1R2NR; Ci2R2NR;
Ci6R1NR



Pat. No. D902967
Ci0NR; Ci3NR;
Ci5NR



Pat. No. D902966
Ci7NR

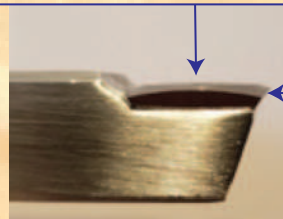


Pat. No. D902966
Ci4NR

Easy Wood Tools® patented Negative Rake Carbide Cutters™ improve the turning experience with a less aggressive carbide cutter that virtually eliminates chipping, catches and blowouts. Our Negative Rake Carbide Cutters create smooth, safe, continuous cuts and make turning man-made materials and ultra-hard woods safer and easier.

Top and relief surfaces work in tandem to produce a true negative rake cutting edge

Our Negative Rake Carbide Cutters™ fit existing Easy Wood Tools® tool bars. No need for two tools, simply swap between cutters



Increasing the angle between the top and relief surface forces the cutter to be less aggressive

Available at: amazon.co.uk/easywoodtools

**Retail Stores Worldwide
and easywoodtools.com**

**Tools For Every Turner :
Every Skill Level**

**For Information on all Tools & Accessories
Visit easywoodtools.com**



Jim Overton, Hampshire, U.K.
Idigbo wood, epoxy resin and Milliput®

Lexington, KY USA



Vase with multi-axis embellishment

Les Symonds turns a two-part vase inspired by the work of Laugharne Pottery

The inspiration for this month's project came from a tall, slim-necked vase from the Laugharne Pottery, in Carmarthenshire, South Wales. The vase would be almost impossible to hollow without using the two-part (split turning) process, which has previously been featured, so I won't be spending much time discussing this in any detail. If you are new to this process, there should be enough information here for you to make the basic vase.

I will be using much more detail to describe the process of making the embellishment, which takes the form of a decorative panel, and as this panel fits into a void in the side wall of the vase, it clearly needs to be three-dimensional. The method will be rather like turning one ball (the body of the vase), cutting a large hole through its body and inserting into that hole, a segment of an identical-sized ball. This is going to involve the accurate turning of both convex and concave curves if the details on the decorative panels are to work.

For the vase, I have used a piece of ash reclaimed from a wormy old beam and for the decorative features I have used a cabochon of bronzite stone and six smaller cabochons of end-grain yew, all set into a panel of beech rubbed with ebonising wax and gold gild-cream.



Laugharne Pottery

Readers may not be familiar with the name of Laugharne (pronounced "Larn"), but may well be familiar with the name of the poet and author Dylan Thomas, who lived in Laugharne, on the Tâf Estuary, near Carmarthen. The pottery at Laugharne specialised in earthenware goblets, chalices, decanters and vases; all with pseudo-Celtic imagery either painted or embossed onto the surface.

Slim-necked vase from the Laugharne Pottery

EQUIPMENT USED

Tools

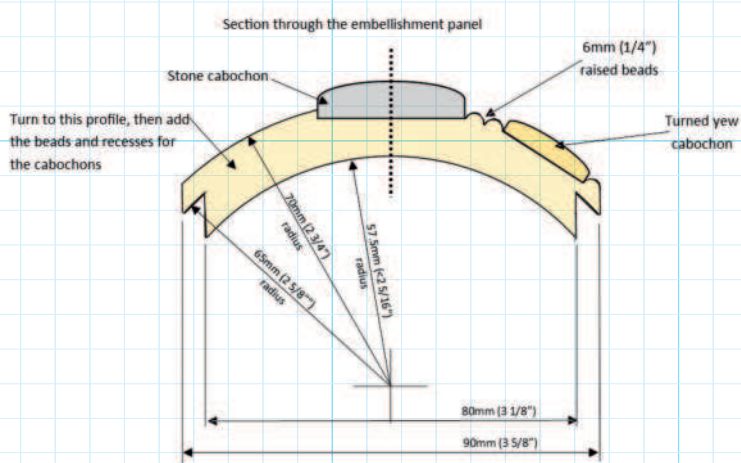
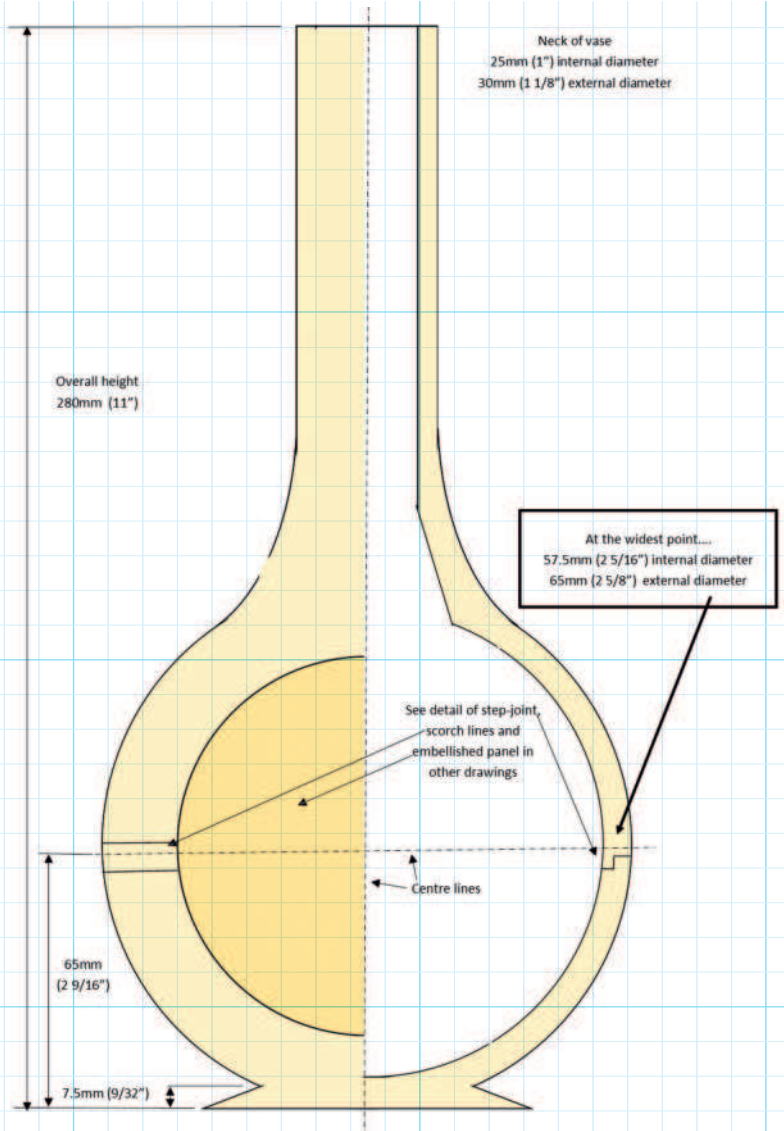
- PPE as appropriate
- Chuck with 50mm jaws
- Drive and live centres
- Spindle roughing gouge
- Spindle gouges
- Parting tool
- Skew chisel (for defining details)
- 25mm/1in drill
- Assorted smaller HSS twist drills
- Various callipers
- Drawing instruments
- Steel rules
- Piercing saw
- Small sanding drum (about 50mm/2in)
- Craft knife or scalpel

Consumables

- Masking tape
- PVA adhesive
- 2-part epoxy adhesive
- 2 or 3 sheets of stout card
- Ebonising wax
- Gold gild-cream
- Sanding sealer and Microcrystalline wax

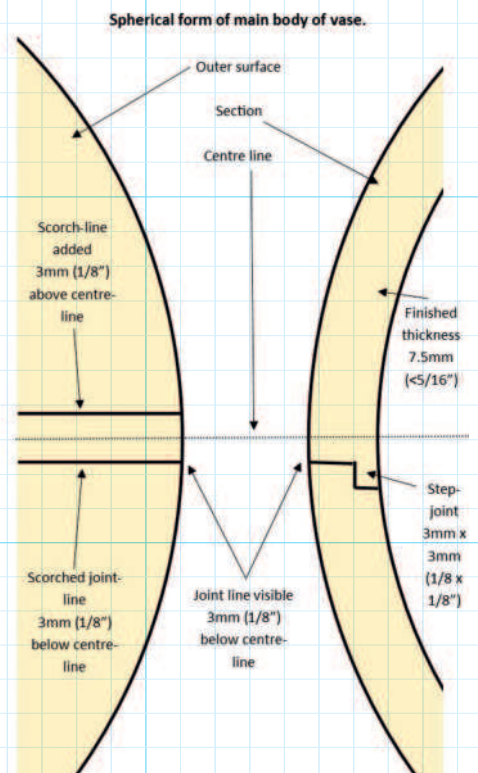
Materials

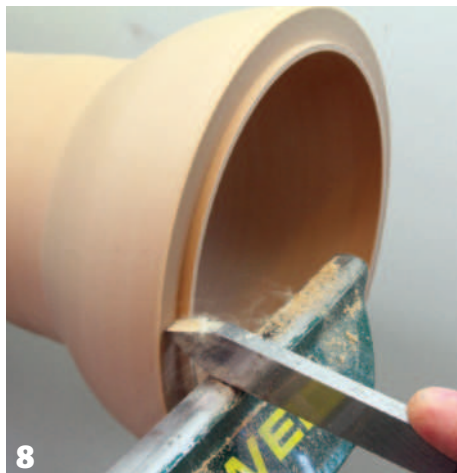
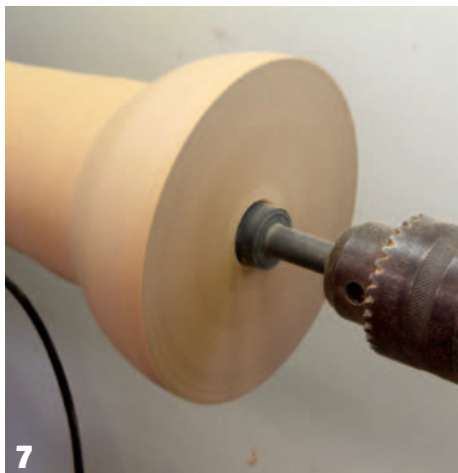
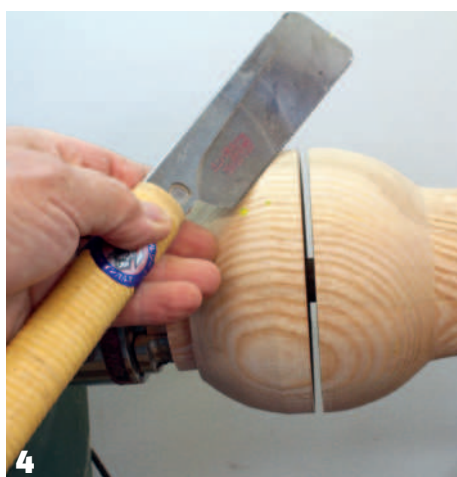
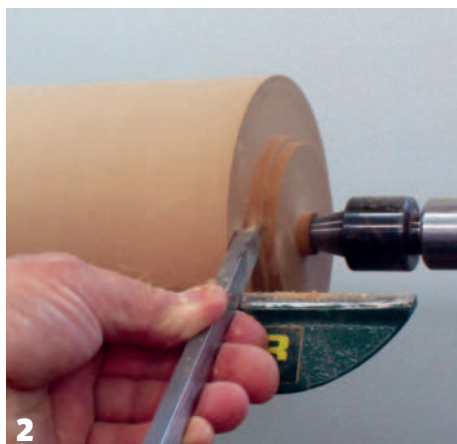
- Ash 300 x 150 x 150mm for the vase
- Beech 100 x 100 x 50mm for the decorative panel
- Yew (*Taxus Baccata*) 150 x 25 x 25mm for the cabochons
- Scrap-wood for jigs 100 x 100 x 50mm and 350 x 25 x 25mm
- Stone cabochon (of your choice) 30mm diameter



Health & Safety

Our main concern lies in the off-centre turning of the decorative panel and its hazard lies in the fact that you may not be able to see the panel in any detail as it rotates. Experiment with positioning a good, strong light behind the workpiece, which may well reduce the inevitable ghosting of the panel's profile, which can make it so difficult to work with. Choose a safe, suitable speed at which to turn and take light cuts with sharp tools.





1 Before you commence turning, familiarise yourself with the design by producing your own drawing. This will prove to be an invaluable help when you later cut card templates for the convex and concave curves involved in the main body and the decorative panel.

2 Mount the main workpiece between centres, reduce it to a cylinder and form a chuck tenon for your 50mm chuck jaws at each end. As is always the case with a split and re-connected vessel, be precise with the shaping of the tenons.

3 Remove the workpiece from between centres and place the foot tenon in a chuck, with support from the tailstock at the other end. Mark a line 3mm below centre for the spherical part of the body and commence roughing the shape. Leave the sphere and the foot several millimetres full of finished size, leave the neck at about 85mm diameter at this stage.

4 Part through the sphere to the right of the line to leave a core of about 25mm. You will need to angle your parting tool to the left and to the right with alternate cuts, to avoid it binding in the cut. Do the final parting off with the lathe stopped and the tailstock retracted, with a fine-toothed saw.

5 Cut your first template for the concave inside of the bottom of the vase. Note that this template needs a curve and two shoulders, each 3mm below centre (see the main drawing and the photo). Hollow the vessel to the shape of the template and abrade down to 320 grit.

6 Apply sanding sealer and wax and buff to a finish, then, with a sharp parting tool, form a 3mm x 3mm rebate for the step-joint on the inside edge of the rim, keeping all edges crisp and square to each other. Remove from the lathe and set to one side.

7 Mount the top half of the vase in the lathe and be as precise as you can about centring the tenon in the chuck and the parted-off half-sphere at the tailstock end, then drill a 25mm hole deep into the vessel. Cut the second card template, noting that this template is a half of the sphere plus 3mm above the centre line, and with two shoulders (as before).

8 Hollow the half-sphere to match the template, then cut the outer half of the step-joint, leaving a 3mm x 3mm tongue on the inner edge. Now remove 3mm x 3mm notches from your template, put it back into place inside the vessel and hollow the vessel by a further 3mm to fit the newly adjusted template. This will accommodate the 3mm lost when the two halves of the vessel are fitted together.

9 Drill the 25mm hole deeper into the neck, taking care not to drill too deeply. You will need to stop drilling at about 25-30mm short of the top of the neck. This will not only avoid fouling the chuck, but also leaves a solid centre with an established centre mark for use later, when re-centring this part of the vase.

10 Abrade, seal and wax the inside, then glue the two halves together with plenty of PVA adhesive, using the tailstock to apply pressure to the joint, then leave to dry overnight. When dry, reduce the diameter at the joint line to 131mm, a little full of its finished size, and to 80mm diameter at the neck and at the foot.

11 Make your third card template to 130mm diameter for the curve, with 40mm steps at each side, such that the template will sit on the three key points established in the previous step.

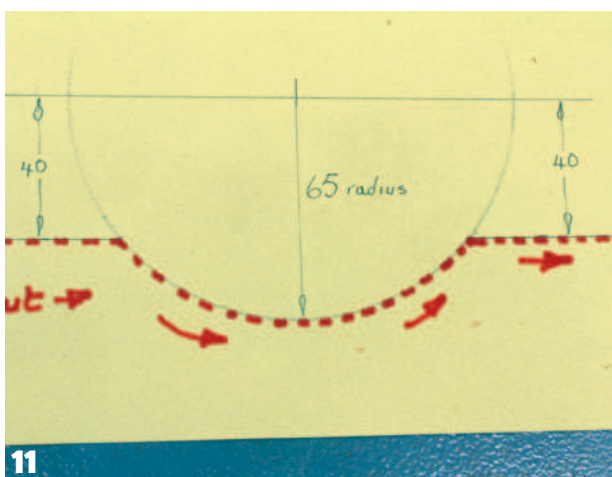
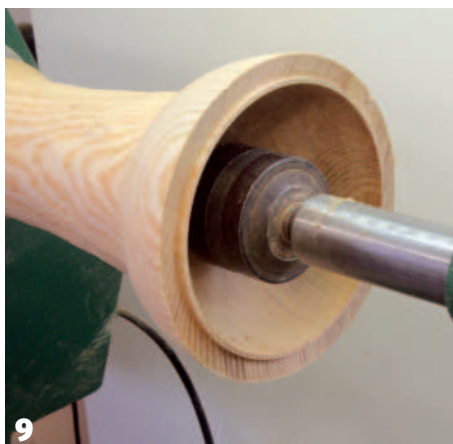
12 Mark on the template a pencil line at the position of the cut joint, 3mm below centre-line, then carefully shape the vase's sphere to match the template, keeping the pencil mark as close as possible to the joint line. When complete, the template should rest on the curve and on the shoulders either side of it. During the remainder of the turning process, this curve must not be cut any deeper.

13 You are now free to shape up the rest of the vase and adjust the shape to suit your preferences. You will probably find that the neck looks a little better if it has a long taper up to the top, but do not reduce it to below 35mm diameter at any point. Leave the foot of the vase a little full of finished size for now.

14 Reverse the vase, putting the foot tenon into your chuck, and take great care to centre the neck end with the tailstock. Turn away the unwanted chuck tenon, then use a 6mm spindle gouge to gently clean off the end grain at the neck and to cut a centre hole down into the neck, cutting through into the larger hole previously drilled.

15 Use a series of drills to open up the neck to 25mm internal diameter then apply the scorch-lines to the dimensions shown in the drawing. At this point in the making of the vase, a decision was taken to add two scorch lines to define the top of the neck and to echo the detail lower down. Abrade down to 400 grit, seal, wax and buff on the lathe.

16 Make the jig which will support the decorative panel. Using one of the scrapwood pieces, mount it in a chuck and form a convex curve using a card template cut to the internal diameter of the vase (115mm). Drill a 3mm hole, dead centre, down into the jig, then set the jig aside.





17



18

17 Mount the piece of beech for the decorative panel into a chuck and reduce it to 90mm diameter. Clean off the outer face and mark an 80mm diameter circle on that face, then hollow a concave curve into it (using a new template, cut to 115mm diameter) to match the convex curve cut on the jig in the previous step.

18 You should now be able to press the jig into the hollow formed in the previous step, and swivel the jig around. If you become aware of any high spots, make adjustments now – it is essential that the jig and the decorative panel fit well.



19



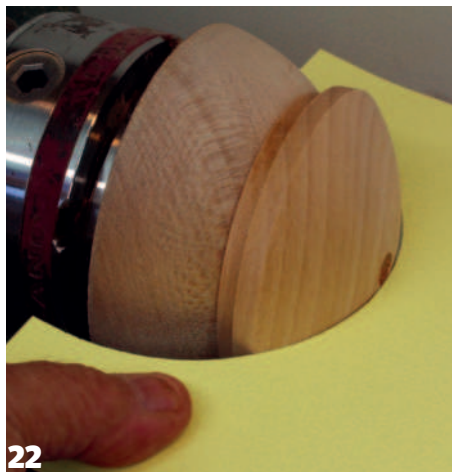
20

19 Cut a 5mm x 5mm rebate running around the outer edge of the panel and use the tip of a skew chisel to undercut the left-hand side of the rebate; this will allow the decorative panel to fit snugly against the curve of the vase when it is finally set in place.

20 Drill a 3mm centre hole right through the decorative panel, remove it from the lathe and then counterbore the hole on the tenon side of the panel to accept a screw-head, leaving 10mm of the core intact. Thus, when a screw is driven through the panel into the jig, the head and the first 10mm of the screw will be in the panel, the remainder of the screw length in the jig.



21



22

21 Set the jig back into the chuck and screw the panel on to it. Choose a steel screw, not brass, as you will be tightening this screw several times. Also, re-drill the holes to a pilot hole size to suit the screw that you are using (if necessary), but bear in mind that the screw must be a snug fit through the panel and a tight fit in the jig.

22 Cut a card template to a curve of 70mm radius, then shape the outer, convex curve of the panel to match it, leaving about 5mm to 7mm thickness at the outer edge.

23 You now cut the central and the outer recesses for the cabochons, so the size of these will be determined by what stones and wooden cabochons you choose. First, cut a 6mm bead to define the central recess and another at the outer rim. Abrade to 400 grit.



23



24

24 Mark a pencil line exactly half way between the outer bead and inner bead, then mark six equally spaced lines crossing it.

25 Unscrew the panel, slide it sideways and bring the centre point of a live centre up to any one of the six pencil marks previously made. Lock the tailstock in place, pinning the panel on to the jig and very firmly re-screw the panel through its central screw hole, on to the jig, then retract the tailstock.

26 Before starting up the lathe, mark a pencil line at about the centre of a 6mm bead, which will just touch the outer and inner beads.

27 Start up the lathe (take care here because there will be a lot of ghosting of the outlines) and the only clear thing that you will see will be the pencil line. Use a 6mm spindle gouge to carefully cut a bead and to hollow the internal recess. Stop the lathe a few times to check progress as you do not want to cut into any adjacent beads.

28 Repeat the previous three steps for each of the five remaining beads and recesses, abrading each one down to 400 grit as you progress. Finally, re-centre the panel back on to its original, central position and cut the final, central recess, taking care not to foul the wood screw.

29 Mount the vase on the lathe and mask-up the area where the panel will fit. Rest the panel in place and draw a pencil line around the inside edge of the panel's outer rebate.

30 Drill a few holes through the inside of the circle drawn on the vase and use a fine piercing saw to cut away the unwanted area. Then use a 50mm sanding drum to clean up the edge, trying the panel for fit as you progress. Glue the panel into place with plenty of PVA adhesive and leave to dry overnight. While you're waiting, turn six small cabochons to match the six outer recesses.

31 Cover all seven recesses in the panel with masking tape, then use a scalpel or craft knife to cut away the excess tape, leaving the face of each recess covered. Apply ebonising wax to the whole panel, rubbing it well into all low areas between each bead, then buff away all excess wax.

32 Gently pat gold gild-cream on to all upper surfaces and leave to dry, then buff gently to remove any excess. To reverse-turn the vase for cleaning up its bottom, simply put a piece of softwood 50mm x 50mm into a chuck and turn down a 24mm spindle of about 300mm length, slip the neck of the vase on to it and bring the tailstock up to support it. Finally, glue your cabochons into place with two-part epoxy adhesive, leave to dry then apply a few coats of microcrystalline wax over the whole vase. ●



Just another pen kit?

"Not only is the Sirocco aesthetically pleasing, well balanced and comfortable to write with, the mechanism is smoother in operation than any other single barrel pen kit I have ever encountered" *Bob Ellis*

Think again!



Turning and images by Brad Herrington

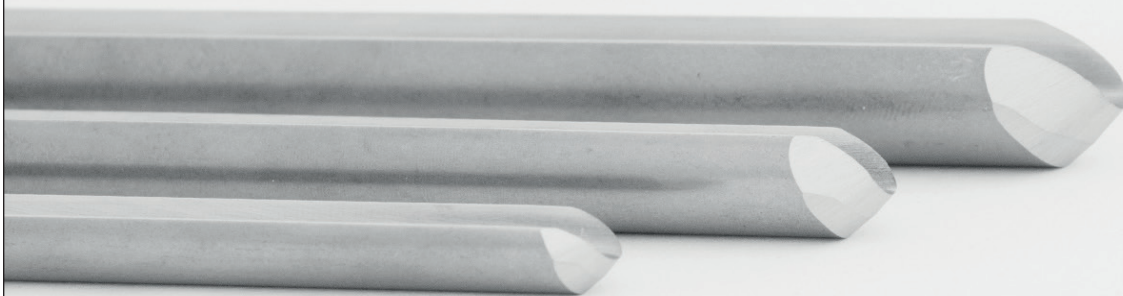
The Sirocco ballpoint kit from Beaufort Ink is now available in 7 different plating options

www.beaufortink.co.uk



Leave your grinder lonely.

Experience the industry's sharpest edge, built on razor M42 HSS, meticulously polished flutes, and four decades of manufacturing expertise.



Made in America • carterandsontoolworks.com

Available at Dictum GmbH—More Than Tools, Drechselzentrum Erzgebirge-steinert & worldwide at carterandsontoolworks.com

ToolPost Versachuck

Without doubt the most versatile wood lathe chuck on the planet



The Toolpost Versachuck fits most wood lathes out there, but whereas any other make of chuck limits you to jaws from that one same make, the Versachuck accepts jaws from almost all mainstream manufacturers

Find it in its new home at
www.beaufortink.co.uk



MISSING A BACK ISSUE OF WOODTURNING?



Order back issues direct from us for only £5.50 in the UK
and £6 overseas (includes P+P).

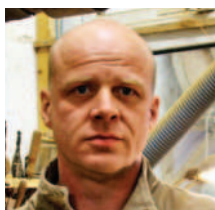
CALL OUR SALES TEAM ON +44 (0) 1273 488005
OR VISIT WWW.GMCSUBSCRIPTIONS.COM

OUR CONTRIBUTORS



ANDREW POTOCNIK

Andrew sees inspiration around him every day. He 'arrived' on the Australian woodworking scene in 1983, and since then his work has developed into areas of sculpture, furniture-making and the odd bit of cabinet work.
andrewpotocnik@telstra.com



ANDY COATES

Andy is a professional woodturner and has a workshop and gallery in Suffolk. He makes one-off pieces, small-batch runs, antique restorations and other strange commissions. He also demonstrates and teaches.
cobwebcrafts@btinternet.com
cobwebcrafts.co.uk



EMILIANO ACHAVAL

Emiliano is an almost full-time professional woodturner who resides on the Hawaiian island of Maui. He is the president of the Maui Woodturners Association. When he is not in his shop, he's deep-sea fishing.
www.hawaiiankoaturner.com



IAN WOODFORD

Since retiring from the pharmaceutical industry Ian has enjoyed concentrating on his love of woodturning. As well as belonging to two Hampshire clubs, he has written articles for both *Woodturning* and an American magazine.



JASON BREACH

Jason started turning at the age of 12 and has built up a reputation as a tutor and demonstrator that has taken him around the world. He produces a range of items, but is best known for his unusual turned boxes.
jasonbreach@hotmail.com



KURT HERTZOG

A professional woodturner, demonstrator and teacher, Kurt writes for various woodturning and woodworking publications in the US.
kurt@kurthertzog.com
kurthertzog.com



LES SYMONDS

After a career in teaching, Les developed his hobby of woodturning into a career. He is on the Register of Professional Turners and has a small shop and gallery in Bala in the Snowdonia National Park, where he displays and sells his work.
www.facebook.com/pren.bala



MARK PALMA

Mark believes turners are the most thoughtful and sharing people he has ever met. Over his 15 years of turning, teaching and writing he has found many friends and acquaintances on his journey with the lathe.
marksworkshop@gmail.com



MARTY KAMINSKY

Previously an engineer, Marty has demonstrated at many symposiums, as well as at turning clubs and special events. He has held many exhibitions on photography, jewellery, and woodturning.
martykaminsky@gmail.com



MIKE STAFFORD

Mike is a lifelong hobbyist woodworker who has built everything from toys to tackle boxes. He has demonstrated for woodturning clubs and also likes to write about woodturning and has been published in several woodworking magazines.
mgstaff@suddenlink.net



PETE MONCRIEFF-JURY

Pete learned turning in school and, when made redundant 12 years ago, became a full-time woodturner. He focuses on making for high-end shows. He also demonstrates and teaches.
bodriglywood@bodrigly.co.uk



RICHARD FINDLEY

Richard is a full-time production turner specialising in small-batch work, one-off commissions and turning for furniture and restoration. He also offers demonstrations and a range of woodturning supplies through his website.
richardfindley.uk



STEWART FURINI

Stewart loves colouring bowls and platters, demonstrating at woodturning events, and making YouTube videos. By day he teaches English.
www.stewartfuriniwoodturning.co.uk
stewart_furini@yahoo.co.uk



STEVE BISCO

Steve has been carving for 30 years, specialising in decorative carving in period styles, first in wood and recently in stone. His book, *Stone Carving for the Home & Garden*, is available from GMC Publications.
steve@thebiscos.com

Breakfast with the Alchemist

Nick Simpson (Professor Bergenstrauser) explains his British Woodturner of the Year 2019 winning piece

British Woodturner of the Year competition

In 2019, *Woodturning* magazine ran a very successful turning competition. The finalists were invited to the Celebration of British Crafts event, which ran at the Oxo Gallery in London from May 8-19 for the winners and runners-up in each category to be announced and certificates to be presented. Nick Simpson amazed the judges with the concept and intricacies of his piece, which won first place in the Amateur category. Ever since, the late Editor Mark Baker had been keen for Nick to dissect its many details.

My inspiration

The stimulus for the creation of these pieces came from three competitions – two at club level and finally the 2019 British Woodturner of the Year competition promoted by GMC and held at the Oxo gallery in London. I am a great fan of club level competitions, which compel members to think about fresh ways of presenting their work. The Factory Floor, Rotating Plinth and the Crucible were my contribution to the Northumbrian Woodturners Association entry for the Border Woodturners Open inter-club competition in 2017. At this time, I was exploring the Steampunk artistic genre and studying the great Victorian engineers. I had just been on holiday in North Wales and met Les Symonds, who struck a chord with his combination of heavy scorching and copper wire enhancement. The Factory and the Crucible were inspired by images from my professional factory visits in Glasgow and Lanarkshire during the depressing de-industrialisation of the 1980s. I made the Egg Coddlers in 2018 as my entry to a Northumbrian Woodturners Association competition to turn two decorated eggs in matching egg cups.



COMPETITION PHOTO BY JONATHAN BAILEY

Breakfast with the Alchemist was conceived as a combination of these pieces and provided a series of illustrations for a 'ripping yarn' tale in the style of 1950s *Boy's Own Paper*. I shall revisit some elements of this epic saga in this article. Visitors to the Woodworkers Institute online forum will be familiar with the component pieces and the storyline. There are three main characters and several sites of action.

The cast

Professor Bergenstrauser (The Prof), Victorian/Edwardian romantic, inventor and part-time Steampunk engineer, was loosely based on the fictional characters Captain Nemo, Dan Dare and 'Doc' Emmett Brown from *Back to The Future* (Universal Pictures 1985). The Prof was obsessed with what he

viewed as the certainty of being able to turn wood into gold. He was accompanied on his quest by Daisydaisy Malaprop, his travelling companion, whose persona was loosely based on Audrey Hepburn's character in the film *Roman Holiday* (Paramount Pictures 1953). The third and equally important person was Bocx Spaenner, lab assistant to the Prof and whose character strongly resembles that of Dr Nefario from *Despicable Me* (Universal Pictures 2010). We are not told whether the Alchemist is the Prof himself or whether another character whom we do not meet has that role.

The tale

The story started in the heavy industrial

setting of the Prof's lab and diverted to Europe to search for a Mystical Catalyst. While the Prof was away Bocx created, with some predictable disasters, items of domestic use which contributed to the Breakfast. The Prof's intent was to produce one or more gold ingots from lumps of wood and charcoal.

The turnings

The entire Breakfast piece was turned from various woods, except for the straight copper pipes and the brass elbow joints. A variety of conventional stains, paints, and finishes were used on the wooden items. A faux rust effect was used prominently, the making of which is explained at the end of this article.

Breakfast with the Alchemist: the component parts

The Factory Floor (10mm high x 302mm diameter) and furnace (28mm high x 105mm diameter) were turned from a single piece of sycamore. The edge of the floor was textured by rotary burr and then scorched. The surface of the floor was coated with matt black automotive spray paint and finished in faux rust. The coals in the furnace were made from 3 x 3 x 4mm blocks of cherry, which had been stained red, orange, or black and glued in place randomly by cyanoacrylate glue. There are bulks of timber, charcoal, and metal items scattered on the Factory Floor. The whole Factory Floor was raised on a circular plinth, which was topped by a battery-powered motorised turntable but appeared to be driven by a steam boiler. The Plinth (seen in the main photograph) was turned from sycamore to 160mm high and 135mm diameter and finished in faux rust

The starting point in the quest to turn wood into gold was the construction of the Crucible, a huge flask-like structure which sat on a three-legged stand over the furnace. The Crucible is a hollow form which was turned from freshly cut green ash, 115mm high x 170mm diameter with wall thickness 11 mm. The uneven top to the flask was shaped by a rotary burr. The outside and top were then scorched by blowtorch until on fire and wire-brushed. When cool, they were painted liberally with three coats of Danish oil. The checks and cracks appeared during the scorching process.

The Crucible sat on a three-legged stand 80mm high and 145mm diameter, the top of which was a 12mm-thick ring form of sycamore. The legs were turned from ebony. The whole was glued together and finished in faux rust over a coat of matt black automotive spray paint.

When the Crucible was up to temperature, sheets of flame erupted from the top. The flames (140mm high x 35mm diameter) were turned from sycamore and were cut to shape by rotary burr. Colour was achieved by spirit dyes and the whole was finished in gloss lacquer.

The Prof and Bocx built the Steam Generator to power the engine that rotated the plinth and to provide a strong current of air to the furnace. [Rotation with sound can be seen in the YouTube video at

www.youtube.com/AUcltG3LAgw]. The Steam Generator, or boiler (100mm x 46mm), was turned from sycamore, finished with satin black automotive spray paint and cut back with fine wire wool. The gauges were turned from sycamore and finished with Rust-Oleum Gun Metal paint, followed by a fine overspray of black automotive paint and then cut back with wire wool. The dials were made from paper and the hands were made of brass, while the glazing was achieved with the application of two coats of gloss lacquer.



Professor Bergenstrauser's Crucible



The Tripod Stand



The Plume of Flames
INSET: The Steam Generator



The Factory Floor at
the Prof's lab



The Mystery Catalyst and the Domestic Devices

The story so far: The Prof and Bocx have failed to produce anything other than ashes in their Crucible. The Prof has heard of a Mystery Catalyst, which was guaranteed to speed the desired conversion. It could only be found in lonely alpine meadows, so he set off to obtain a few kilos of the stuff. On his journey he teamed up with Daisydaisy and they cycled by tandem on several thrilling adventures. But they are different stories. The Prof left Bocx in charge of the lab with instructions for the creation of certain domestic appliances, starting with an automatic device for cooking eggs.

The Egg Coddlers: a two-phase project



The Electric Egg Coddler disaster



The steam-powered Egg Coddlers

THE EGG CODDLERS 1: DISASTER

Of course, there were predictable disasters along the creative way. The photograph shows Bocx's attempt to make an electrical egg coddler. The whole device and the egg caught fire (note the absence of sleeved insulation on the wiring). This coddler was made from ash and measured 60 x 59mm. The egg was a proprietary cream egg which had been subjected to the caresses of a blow torch. This episode convinced the Prof that steam was the only way to cook.

THE EGG CODDLERS 2: SUCCESS

The use of the Steam Generator as an efficient and controllable heat source worked well and the Egg Coddlers were created. The Egg Coddlers were turned from sycamore. The larger was 125 x 60mm and the smaller 100 x 60mm. The heat exchanger pipework on both coddlers was a series of 3mm turned beads. The coddlers were sprayed with a base coat of ebonising lacquer spray. The heat exchanger pipework was finished in Rust-Oleum acrylic copper spray and cut back with wire wool to reduce the shine. The heat exchanger pipework was then masked by painter's tape and both units were finished with two coats of Rustoleum Gun Metal acrylic spray paint.

The eggs were turned from cherry and finished with two coats of cellulose sanding sealer. The yolks and whites of the eggs were hand painted with acrylic paints.

THE HOT CHOCOLATE MAKER:

During their tandem cycle trip to the Alps, the Prof and Daisydaisy discovered that the Mystery Catalysts for aurous conversion were probably theobromine and caffeine. Both were known ingredients of cocoa. This was the stimulus for the creation of the Hot Chocolate Maker.

The tap and the drip were turned from boxwood. The tap was a single turning, on which the shaft appeared to be threaded but, in fact, had a series of V grooves. The drip was attached by CA glue into the hollowed spout of the tap



The Hot Chocolate maker

and hand painted with acrylic brown paint. The tap and gauge were finished as described for the Steam Generator gauges above.

The cocoa mug and handle were turned from sycamore. The mug stands 60 x 50mm and is a solid cylinder. The 'splash' was part of the turning. The handle was an arc from a ring of sycamore and was attached by CA glue. The assembled mug was sealed with cellulose sanding sealer and sprayed with matt black automotive paint. The surface was then distressed by a hammer and other heavy objects. The final finish was Rust-Oleum Gun Metal acrylic spray paint. The metallic sheen was cut back with wire wool to give the dull appearance of pewter. The hot chocolate and the splash were hand painted in brown acrylic paint.

The Alchemist's Pan

The final element in the piece was the Alchemist's Pan. This could be placed directly on top of the coals and left to cook while the furnace and crucible cooled down. The pan (12 x 85mm) was turned from sycamore and the handle was turned from ebony. The hoped-for Gold Ingot was, in fact, a worthless copper-coloured sausage. The sausages were turned from cherry and charred, or (in the case of the 'ingot') spray painted.



The Alchemist's Pan with the worthless Copper Sausage

FAUX RUST

The effect was created by the application of three layers of coloured paste in the order black, brown, and yellow. Each layer was composed of the appropriate acrylic paint stirred into a mixture of sand, Plaster of Paris and tacky PVA glue. The layers were applied by stippling using a dry brush, and allowed to dry before the next layer was applied. Metallic highlights were created by dabs of Rust-Oleum Gun Metal paint using a fine brush.



The ingredients for faux rust. Front left: Plaster of Paris, Front right: artist's sand. Centre: tacky PVA glue. Rear: yellow, brown and black acrylic paints

Acknowledgements and the future

Breakfast with the Alchemist was fortunate to win the amateur category of the 2019 British Woodturner of the Year competition. Entries were to be judged on style, creativity, originality, technical execution, and presentation. I noted the order of these criteria and took a punt.

Nothing is created in a vacuum and several people deserve recognition for the help they gave along the way. Les Symonds lit the spark that was to become the Crucible. Martin Pidgen helped with the idea of the Tripod Stand. A select group of contributors to the Woodworkers Institute online forum and the Association of Woodturners of Great Britain online forum helped with their encouragement to continue the Prof's madcap adventure. Pete Moncrieff-Jury provided the jolt that spawned Daisydaisy and the tandem journey. The Prof has not disappeared. Inspired by the Magician in Lyra Belacqua's latest adventures [*The Book of Dust vol2. The Secret Commonwealth*, Sir Philip Pullman, Penguin Books 2020] he knows that Aurous Creation from wood is not only possible but a dead cert.

NEW FULL RANGE OF TOOLS AVAILABLE

- Hardened to 66/69 HRC, massively out performing standard HSS tool
- Cryogenically treated giving a huge increase in performance over standard M42
- Beautifully balanced 'Copper black handles'
- Triple tempered for Ultra high performance
- Hand Honed to a Razor Edge
- Hand crafted in Sheffield, England



Tel. 0114 261 2300

Fax. 0114 261 2305

Web. www.crownhandtools.ltd.uk

Email. Info@crownhandtools.ltd.uk

Available from

www.axminster.co.uk

www.marksanger.co.uk



Two Technologies Giving Unequalled Performance

hamlet

CRAFT TOOLS

Sheffield England



M42 Turning Tools

Stay Sharper - Longer

Now available: 1/4"; 3/8"; 1/2" Bowl Gouges; 3/8"; 1/2" Spindle Gouges
with red-ferruled ash handles, or unhandled, at prices you can afford

Live The Dream - Talk to your Hamlet or Henry Taylor Stockist - TODAY!



40/40 Grind Set Up-Block



Stuart Batty is an internationally known woodturner who popularized a bowl gouge grind known as the 40/40 grind. Stuart teaches this grind as a platform only grind that does not use jigs or fixtures other than the platform on a OneWay Wolverine Jig System. Until now, the only way to achieve a 40/40 grind was by hand. I have developed a system that uses the OneWay VariGrind 1 or 2 tool holding fixture and a setup block to achieve the traditional 40/40 grind. Results are much more consistent and it is much easier to grind a single facet. The Nose Angle and the Wing Angles will be 40 degrees every time just as one would get with Stuart's manual grinding method.



Other Set Up Aids

Universal



Quad



Set-Up Blocks



WWW.RONBROWNSBEST.COM +1 770 962 3821

Kit & Tools

A collection of press releases and tests showing the latest tools and products on the market

All prices are correct at time of going to press but are subject to change without notice. Products from US & overseas to UK are subject to shipping & taxes

Record Power Coronet Envoy and Coronet Regent heavy-duty cast iron variable speed lathes



Record Power has introduced two exciting new lathes to its well-established, exclusive Coronet range. Building on the success of the first in the new generation of woodworking machines, the Coronet Herald, the Coronet Envoy and Coronet Regent have been designed and developed to accommodate the woodturner's natural progression in turning larger, heavier pieces.

The Envoy and Regent are supported by large and heavy integral cast iron legs to give ample protection from vibration while turning out-of-balance timbers. The overall heavy-duty construction of the machines, along with the finely engineered and machined components, make both lathes a pleasure to use.

The Envoy has been designed to offer the capacities, power and performance to accommodate large work, with 16in swing over the bed and a powerful 1.1kw output motor.

The Regent is the largest lathe in the Coronet series, with an increased swing over the bed of 18in and a more powerful 1.5kw output motor. This lathe is the ideal option for the most demanding of turners.

The optional cast iron bed extensions available for these lathes increases the distance between centres for those who need it, while keeping the machines as compact as possible for turners who do not need the extra capacity. Both the Envoy

and Regent offer unrivalled value for money in their class, at a cost more commonly associated with much smaller or less well-specified lathes without compromising capacity or features.



For further information visit the Record Power website www.recordpower.co.uk or contact your nearest Record Power stockist.

Kurt's clinic

Kurt Hertzog answers some readers' questions

Sanding sealant options

Question: I wondered if you could advise me on the applications for the two different types of sanding sealant, namely cellulose and acrylic. Are there different woods that finish better with acrylic rather than cellulose? Also, which type of finishing materials are most suitable with either sealant, i.e. wax, oil or whatever? Are there any guidelines available so that the very amateur turner like me can achieve the best finish on a project?



My finishing needs are relatively simple. A gloss, a matted back finish, and a tough-as-nails finish for pens and the like. CA glue, lacquer, and the occasional wipe-on poly do everything I need

Answer: You've covered quite some ground here with your questions. I'm a very limited sanding sealer user. I use it on occasion to make finish cuts on woods that are causing me problems with tear-out. An application of a 50/50 thinned sanding sealer is one method that can help tame the unruly grain enough for a clean finish cut. The other use I have for sanding sealer is to prevent stains or finishes from penetrating unevenly into woods, whether turned or flat work. End grain will suck up stains and finishes far more readily than face grain, causing areas that don't match the rest of the project in colour or intensity. Sanding sealer



Whether regular spray pressure, HVLP, or rattle can, I find that lacquer is easily learned and executed. Done well, it is a durable and good-looking finish

application only to the end grain area helps equalise the face-grain to end-grain absorption. I always use a 50/50 mix of sealer to thinner when I need it. I don't use it universally as a standard prep coat for other finishes, which seems to be part of your question.

As far as cellulose versus acrylic... I use cellulose exclusively. I only use the one brand and always thinned down so I can't give any advice on why acrylic might be better, other than perhaps water clean-up of application brushes. My application is via a paper towel or a foam brush, which is trashed afterwards when safely cured.



One of the most important things you can do for safety is to have the proper PPE always available – especially the correct (still active and effective) breathing filter packs for particular chemicals being used



A simple example of my working containers for solvents used in the shop, numbered one to six, the weakest being water then through to my lacquer thinner. Each is in a marked polyethylene chemical bottle with tight-fit cap

As for guidelines on finishing, that is an art and science unto itself. When you've progressed beyond the 'rub and buff' shellac and wax stuff, there are myriad available finishes and techniques. Based on your end use or customer needs, take your cues from the available writings of the many expert pro turners. Also, be certain to look into the finishing experts from the flat work world. My favourite experts on wood finishing are Michael Dresdner, Jeff Jewitt, Teri Masaschi, and Bob Flexner, to name a few. My advice to you as you progress down your finishing path is to select one finish and master it – perhaps a couple at most. Whether you use sanding sealer underneath is your choice. I'm not sure I see any advantage other than as noted above.

Forever experimenting with the many and varied finishes

available may be fun, but I'm more for getting the one or two that do what I need and getting as proficient as possible with them. The more you minimise variation, the faster, more efficient, and more uniform (read higher quality) your finishing will be. Other than the occasional wipe-on poly for a cut back to a low-gloss matte, my two go-to finishes are CA and spray-on lacquer. With those two and that occasional poly being a third, I can accomplish all that I need. There may be the rare occasion when I dabble with some other finish but it is on a very special needs basis. You can choose whatever finish(es) suits you but I think brushing up with the experts I've suggested and not trying to master too many different finishes will serve you well.

Storing hazardous products

Question: I'm concerned about the storage of finishing products and cleaning chemicals in my shop. Can you offer suggestions on the best way to safely deal with all of these necessary but potentially hazardous products?

Answer: Without having the quite expensive chemical storage cabinets and air-tight, fire-safe rag disposal containers usually found in industry, there are many things you can do to help be safe in your shop. Store any chemical supplies safely off the floor in an area out of harm's way from denting, dinging, heat, untrained hands, people without proper PPE, etc. Keep all containers tightly sealed and only decant usable quantities from any large containers into transfer containers of appropriate size. Be certain to use transfer containers of proper material for the chemicals to be held. For nearly everything you might use, polyethylene chemical bottles with fitting caps will be appropriate. These are available at machine tool suppliers, local or internet, and most discount auto supply-type retailers. I also have bought new, empty

pint and quart metal paint cans and lids from my local professional paint supplier for decanting large quantity chemical containers into more convenient sizes. By keeping the large quantities secure and sealed, these smaller containers can be used where needed and reloaded as required. With sealing caps, you can control odours and evaporation. Be certain to clearly mark the transfer containers with the contents. You and all others who might come in contact with these need to know what is contained for the safe handling and use of proper PPE. Inside a poly bottle or an unmarked can, many chemicals will look the same and are easily confused unless very clearly marked. Putting a date on the transfer container isn't a bad idea either. Do not dispose of any empty containers, used application rags or brushes, clean-up items, or any potential

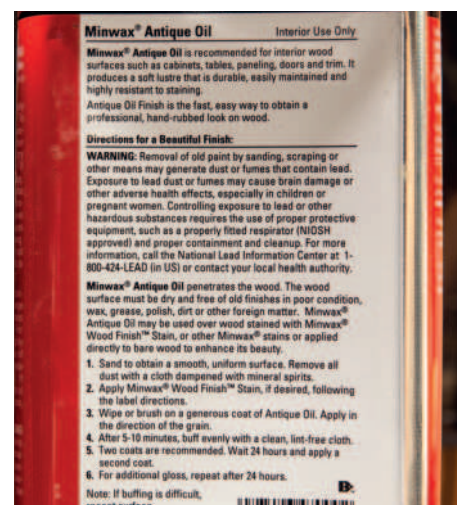
spontaneously combustible items without first letting them fully air cure, spread out safely on a non-combustible surface clear of other combustible items. I spread my application rags and brushes in the middle of my shop's concrete floor, away from everything flammable, until they have fully cured and hardened. Once fully cured, they are safe to be disposed of properly. The most important bit of advice I can offer is to read, understand, and follow all the manufacturer's safe handling, storage, and use instructions. Use the PPE suggested for your health safety and that of others who may be in the area. In my shop, even with all of the precautions I follow, I keep several fully-sized and up-to-date fire extinguishers of the proper type. Not expensive and worth any price should you need them for any incidents, whether involving chemicals or equipment.



A fire extinguisher or two, of the proper type and current charge, is a low cost, very worthwhile addition to any area with wood, wood dust, and chemicals



In my shop, all of my chemicals except for the working transfer containers, are stored in one place. They are tightly capped, stored in the original containers, and off the floor



The most valuable information about any chemical or finish is on the side of the container. Best use methods, proper PPE, and emergency first aid instructions are there

LAGUNA REVO IIF

Innovation has been key to the progress of the Laguna brand and it is fully embraced here in the new REVO 12/16 Midi Lathe.

Turn to Perfection

Large heavy duty cast iron bed, headstock, tailstock and banjo
1 Hp Motor with Pulse Width Modulation to ensure constant torque and speed
Three speed settings and full variable speed from 50 to 3,500 rpm
12 1/2" swing over the bed and 15 1/2" between centres
Forward / Reverse and 24 position indexing system

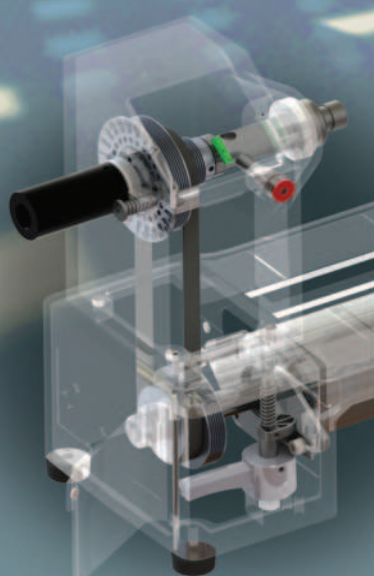


P.V.V.M

£999 inc VAT

Shown with optional Floor Stand: £329 inc VAT

We know these are different times to visit retailers and see new machines. But with over 30 specialist independent Laguna stockists in the UK, Ireland and Europe we recommend visiting our website to find your nearest stockist then contact them directly to check if they are open and have the new Laguna 12|16 Revo on display to view. Many of our retailers are experienced lathe specialists and this is indicated on our website.



The front bearing is a double sealed 6006 LLU Ball bearing offering a 31% higher dynamic load rating than a typical 6005 bearing.



Laguna's patented tool-less belt change system ensures changing between speed ranges is simple and fast.



Optional expansion set: 10" Bed extension kit also allows outboard turning up to 16" diameter: £179 inc VAT



CHESTNUT

PRODUCTS

FINISHING SCHOOL

Applying Cellulose Sanding Sealer - how, when and why.



1 The most popular choice for Woodturners is still Cellulose Sanding Sealer. It binds the loose fibres of the timber together, gives a solid base for finishing and seals the open pores so that less top coat is needed, producing a more resilient final finish.

2 Prepare your work, then apply Cellulose Sanding Sealer with the lathe stopped. On small areas a cloth is ideal. Beware of using paper towel as this can leave bits behind which can spoil the finish. Safety Cloth is an ideal choice for application.

3 Apply sealer over the entire surface. It is quite forgiving and doesn't normally show lines where overcoated. Don't apply too much, you shouldn't leave puddles on the surface, just an even coat.

4 On larger areas use a brush (or spray equipment). A brush makes it easier to keep a wet edge. Don't flood the surface. Only one coat of sealer should be applied.

5 The sealer dries quickly and is normally ready to sand within minutes. Lightly smooth the sealer with a fine abrasive, before overcoating with any of the waxes, lacquers or polishes in our range. We do not recommend using oils on top of sealer.

See our YouTube channel for more tips!
More information available from your local stockists or contact us at:

PO Box 260, Stowmarket, IP14 9BX

Tel: 01473 890118

mailroom@chestnutproducts.co.uk

www.chestnutproducts.co.uk



FOR ALL YOUR WOODTURNING REQUIREMENTS



ProEdge sharpening system, repeatable sharpening every time. We won't be beaten on price.

Robert Dorby



hamlet
CRAFT TOOLS
Sheffield England



pfeil



Laguna 12|16
REVO Variable Speed
Lathes in stock



Plenty of Australian Goldfield
Burrs, Native Burrs in store

Stainless Bottle Stoppers
& Honey Dippers



STAINLESS
BOTTLE STOPPERS

AUTHORIZED UK
DISTRIBUTOR



Open 10am-5pm, Monday to Friday. Closed Weekends

www.toolsandtimber.co.uk

CALL, VISIT
OR SHOP
ONLINE

G&S SPECIALIST TIMBER

The Workshop, Stainton, Penrith, Cumbria CA11 0ES

Telephone: 01768 891445 • Email: info@toolsandtimber.co.uk

Steve Bisco creates a fumed oak apothecary vase



Turn Richard Findley's
romantic heart pendant

Marty Kaminsky concludes his sharpening series



Stephen Long makes a beautiful letter opener

TO SUBSCRIBE, VISIT WWW.GMCSUBSCRIPTIONS.COM

Editorial
Karen Scott, Andy Coates, Jane Roe
T: 01273 477374
E: karencs@thegmcgroup.com
Designers Oliver Prentice
Illustrators Oliver Prentice
Advertising
gmcadvertising@thegmcgroup.com
Publisher Jonathan Grogan
Production Manager Jim Bulley

Subscriptions
E: pubs@thegmcgroup.com
Marketing Anne Guillot
T: 01273 402871
Origination
GMC Reprographics
Printer
Precision Colour Printing
T: 01952 585585

Distribution
Seymour Distribution Ltd
T: +44 (0) 20 7429 4000
Woodturning
(ISSN 0958-9457)
is published 13 times a year by
the Guild of Master Craftsmen
Publications Ltd.
Subscribe from £24.30
(including free P&P)

Save 10% with 6 issues
Save 15% with 12 issues
Save 20% with 24 issues
Plus UK subscribers can save an extra
10% by choosing Direct Debit
Post your order to:
The Subscription Department,
GMC Publications, 166 High Street,
Lewes, East Sussex
BN7 1XU, England.

Telephone: 01273 488005
Fax: 01273 478606
Cheques should be made
payable to GMC Publications Ltd.
Current subscribers will automatically
receive a renewal notice (excludes
direct debit) subscribers

Woodturning will consider articles for publication, which should be sent to the Editor together with a stamped-addressed envelope for return. GMC Publications cannot accept liability for the loss or damage of unsolicited material. Views and comments expressed by individuals do not necessarily represent those of the publishers and no legal responsibility can be accepted for the result of the use by readers of information or advice of whatever kind given in this publication, either in editorial or advertisements. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission of the Guild of Master Craftsmen Publications Ltd.

Japanese-inspired bowls

Mike Stafford turns an oriental rice bowl and discusses the inspiration behind his work



Inspiration for woodturnings can come from a variety of places. Sometimes it originates from what other turners are doing and sometimes it comes from something that you stumble upon on the internet.

In 2008 the Mid-South Woodturners Guild undertook a club challenge to turn rice bowls from roughed blanks they were able to obtain. At the completion of the challenge, the members self-published a book, *Japanese Bowls: A Mid-South Perspective*.

This book opened my eyes to the possibilities of the simple woodturned rice bowl. Of course, the bowls pictured in their book took this simple and utilitarian turned wooden bowl into the realm of art. Who knew wonderful fine art could be

created from such small pieces of wood?

I became enthralled by the overall shape of the rice bowl and turned many variations based upon inspiration found on the internet and pictured below. They were popular with customers and used small pieces of wood that might otherwise have gone to waste. After a while my interest waned and I stopped turning variations of rice bowls.

A couple of years ago my hard drive failed and with it went a lot of the inspirational pictures of Japanese rice bowls I had accumulated. As fate would have it, I had developed a market for small bowls similarly sized to a rice bowl. Not being the most creative person, I needed more inspiration and ideas so I started searching the internet again for more

examples and stumbled upon the fabulous world of Japanese wooden tableware.

Tableware includes not only bowls but cups, plates, platters, covered dishes, glasses and pedestal items. The bowls, in particular, were varied in form and were beautiful. I was attracted primarily to the bowls for the reasons stated previously, so I decided to place my emphasis on trying to learn to turn these forms, some of which have been in use for centuries. I was inspired and enthralled once again so I started accumulating appropriately-sized blanks to try to turn some of these beautiful items.

Japanese bowls for food fall into three general categories – rice bowls (chawan), soup bowls (shiruwan or owan) and small bowls for side dishes (kobachi).



Antique heart pine



Chakte viga



Koa



Blanks ready to turn

Wood for Japanese bowls

Fortunately, these bowls are turned in a variety of sizes, from very small to fit the hands of a child, to medium for the smaller female hand, or large for the man of the house. Much like the chairs of the bear family in Goldilocks, there is a Japanese bowl in a size that is just right for every diner. So almost any reasonably-sized piece of wood is just right for turning a Japanese-inspired bowl. My experience has been that bowls 4in-5in in diameter sell more readily.

Tools

- Spindle roughing gouge
- Spindle gouge
- Hunter Osprey carbide tool
- Hunter Viceroy carbide tool
- Parting tool
- Cole jaws
- Shop-made depth gauge

Turning a Japanese-inspired bowl

1 Japanese bowls traditionally are turned from the highly prized zelkova (Japanese elm) also known as keyaki, as well as maple or beech. I decided to use what I had to hand, which included pieces of ash, walnut, maple and sycamore. I rounded these blanks up and formed a tenon to fit my chuck on one end.

2 I decided to turn a soup bowl (shiruwari) that was similar to the Chakte viga rice bowl I had previously turned. This bowl shape is known as the Koma or Komagata which historically has been symbolic of departure. I started with a Tasmanian blackwood blank about 4in tall and a little over 4in in diameter. I mounted a blank in my chuck and with the live centre in the tailstock made certain it was running true before cleaning up the end grain to flatten that surface. Most of the bowls I wanted to turn would end up about 3in high and about 4in round. With this in mind I decided to measure and mark a line to establish a baseline for the height.

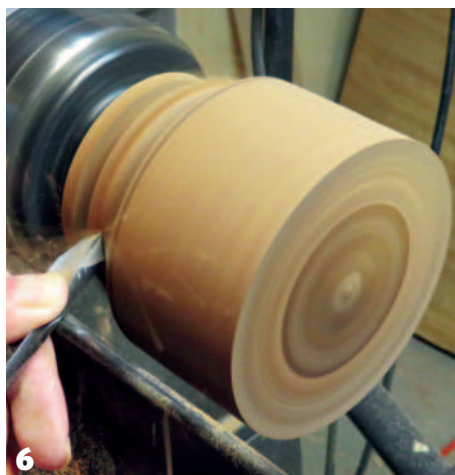
3 Using the line I drew around the blank, I used a parting tool to remove waste on the headstock side, which would be below the area of the bowl where the foot was to be located.

4 I could now draw another line to establish the proportions between bowl and foot. My best guess was the bowl section was slightly more than two-thirds of total height.

5 The design of the Japanese bowl incorporates a foot, which makes it easier for the user to lift the bowl and use it in hand. The proper manner to eat the rice or other solid food is to hold the bowl in one hand and chopsticks in the other, using your chopsticks to scoop the food into your mouth. This lessens the chance of dropping food. If a soup spoon is not available, it is proper to sip the soup out of the bowl and eat the solid food with chopsticks. Usually, the Japanese will hold their bowl with the thumb on top and the other fingers under the foot for stability.

Turning the foot

6 I used a spindle gouge to start roughing in the contour of the foot so that I would have a reference once I began to form the shape of the bowl. I did not turn the foot to its final diameter in order to leave ample wood for support while I was hollowing the bowl itself.



7 With the general contour of the foot as a reference, I could now use the spindle gouge to create the elongated cove that forms the sides of the bowl.

8 With the overall shape of the upper section of the bowl established I refined and smoothed the wood with the Hunter Osprey, which leaves a surface requiring little in the way of sanding.

Hollowing the bowl

9 Hollowing is a fairly straightforward process and can be accomplished with a variety of tools. Usually, I would quickly hog out the majority of the waste with a gouge, but on a bowl this small I decided to use the Hunter Viceroy. This tool allows me to quickly remove waste wood without stressing the mount and creating vibration, which would add to a rough surface in the wood. The little 6mm razor-sharp cutter removes wood effortlessly and I did just that using a stepwise process. Leaving the central pyramid provided stability as I worked toward my final thickness at the rim of the bowl.

10 As the hollowing deepened, I checked the depth frequently. The U-shaped bowl section actually bottoms out in the swell at the top of the foot. If the hollowing is too deep the U shape could intersect with the coved area under the bowl, so I measured several times.

11 Once I was satisfied with the depth and shape of the bowl, I could turn my efforts to refining the shape of the foot. I turned to the Hunter Osprey once again to trim the foot down to a pleasing dimension while reducing the need for sanding.

12 With all the turning complete it was time to sand and finish the Koma bowl I had turned.

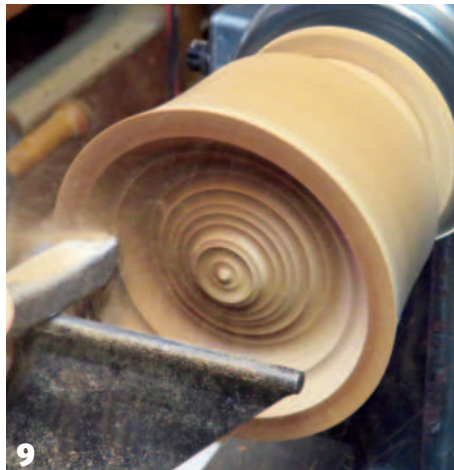
A traditional finish? Not so fast...

Japanese woodturners, *kijishi*, use lacquer to finish their turned wooden wares (known as *shikki*). However, this lacquer is not the same as the lacquer with which westerners are familiar.

Japanese lacquer is made from the sap of the lacquer or *urushi* tree, native to Japan and a close relation to poison ivy. The sap is poisonous to the touch until it dries. In the most basic terms, the *urushi* sap is a naturally occurring plastic and is a highly resistant and durable material. Once it has been collected, it is gently heated to remove the toxicity and excess moisture. The resin from the sap then hardens and takes on the same characteristics as plastic after it is exposed to moisture and air.

Of course, the original lacquer westerners used may be seen as being just as exotic given that it was traditionally derived from the secretions of the lac insect. These deposits were collected, refined and dissolved in alcohol to become shellac. Further refined shellac is known as lacquer.

Despite the fact that I could easily obtain miles of poison ivy vines in my area from which I



could boil out sap for a traditional *urushi* finish, I decided to forgo that option and use lacquer out of a can. My choice to do so has nothing whatsoever to do with the fact that I am highly allergic to poison ivy. I am just not into alchemy.

While different pigments are used to dye lacquer, black (*kuroshitsu*) and red (*akai urushi*) are the most common. Black pigmentation is achieved by the addition of iron, and red pigmentation is brought about by the addition of iron oxide (Fe_2O_3) or cinnabar (HgS).

Japanese tableware is also available finished with clear, yellow, brown and green lacquer colours. I chose to colour some of my Japanese bowl reproductions, but not necessarily with the same colours, nor with the same results might I add.





13A



13B

13A & 13B To finish, after the bowl was sanded inside and out I brushed on multiple thinned coats of brushing lacquer. I allowed it to dry between coats and then cut it back with either very fine sandpaper or steel wool to level it and remove any dust nibs that might have landed in the finish. I applied finish to both the inside and accessible outside areas of the bowl.

14 With finishing done it was time to part off the bowl. I used a thin parting tool in one hand to carefully part off the bowl while catching it in my other hand.

Finish turning the bottom

15 These bowls have a hollowed foot. The reason for this is twofold: first, to reduce the overall weight and secondly to provide an air space between the bottom of the bowl, which might be uncomfortably warm if the food contained in the bowl is hot. I reverse-mounted the bowl in a set of mini-Cole jaws. Hollowing the foot is a two-step process. First, I cleaned up the bottom with a gouge to remove any torn grain created by the parting operation.

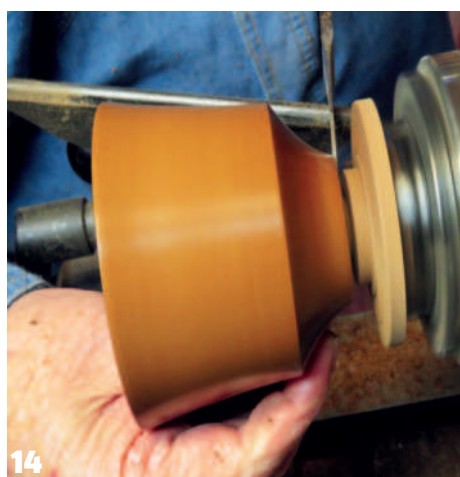
16 The next step is to hollow the foot. This I did quickly and safely with a sharp parting tool, using stepwise cuts to remove the waste wood. Be sure to drop the handle slightly so that the sharp edge of the tool is cutting and not just scraping. By using a push cut with the parting tool there is little stress placed on the bowl or the Cole jaws.

17 With the foot hollowed, sanded and finished the bowl was complete. The bowl measured almost exactly 3in tall and 4in in diameter. About 1/4in of wood separates the bottom of the inside of the bowl from the hollowed foot. The finished bowl holds a volume of a little more than 10 ounces (295ml) or slightly more than a cup.

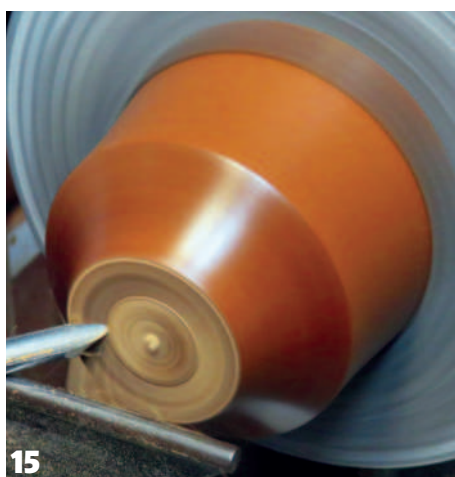
18 I decided to turn another komagata in bigleaf maple burl. I am not sure this timber would have been chosen by Japanese woodturners because of the voids and bark inclusions it contains, but I liked the way it looked when complete. This bowl measured almost exactly the same as the first koma I turned.

So give Japanese inspired bowls a try. They are not difficult to turn but do require some attention to detail to keep the resulting bowls light and elegant like the originals. I am still working on the elegant part. These bowls are of a size for which people seem to be able to find a use.

You are on your own if you endeavour to make your own urushi lacquer. I don't want to know about it but I am going to be investing in the various makers of ivy rash ointments and treatments just in case. ●



14



15



16

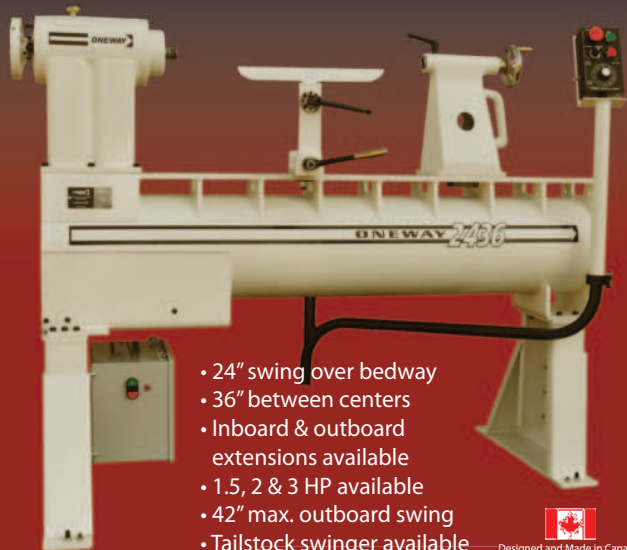


17



18

Superior Design, Legendary Quality



- 24" swing over bedway
- 36" between centers
- Inboard & outboard extensions available
- 1.5, 2 & 3 HP available
- 42" max. outboard swing
- Tailstock swinger available



Designed and Made in Canada

ONEWAY 2436 LATHE

Powerful, Precise, Smooth.

ONEWAY
EUROPA
Superior Design, Legendary Quality

www.onewayeuropa.com
tel +49 2566 905 106
mark@onewayeuropa.com



The Beall Wood Buffing System

Check out our demos on You Tube

THE BEALL TOOL CO.
Newark Ohio 1-800-331-4718
www.bealltool.com

SNAINTON
WOODWORKING SUPPLIES

Barkers Lane, Snainton, Nr. Scarborough,
North Yorkshire YO13 9BG
TEL: 01723 859545
Open Mon-Sat 10.00am-4.00pm
Sunday + Bank hols - CLOSED

Visit our website: www.snaintonwoodworking.com

CHARWOOD

W815 Mini Lathe	£189
W824 Midi Lathe	£379
W813 Lathe	£425
1420V Heavy Duty Bench Lathe	£599
BD15 Belt/Disc Sander Package	£99
BD46 Belt/Disc Sander 4" x 6" Package	£129
BD610 Belt/Disc Sander 6" x 10" Package	£299
W711 8" Bandsaw	£179
BS410 10" Bandsaw	£269

CHESTNUT

Buffing System	£56
Buffing Tree	£40

Large range of finishes in stock

CHISEL SETS

NEW Charnwood W834 6 Piece Chisel Set	£99.99
NEW Record 3 Pce Bowl Turning Tool Set	£79.99
NEW Record 3 Pce Spindle Turning Tool Set	£89.99

Buy both Record sets together £149

Robert Sorby 67HS 6 Piece Turning Tool Set £149

CHUCKS AND ACCESSORIES

Charnwood Viper 2 Chuck	£89
Charnwood Viper 3 Chuck	£99
Charnwood Nexus 3 Chuck	£99
NEW Record SC1 Mini Chuck	£69.99
NEW Record SC2.5 Mini Chuck	£79.99
Record SC3 Geared Scroll Chuck Package	£95
Record SC4 Geared Scroll Chuck Package	£125

GLASSCAST RESIN PRODUCTS

Resin, Pigments, Alcohol Inks & Accessories.

LAGUNA

12/16 Revo Lathe	£949
12/16 Revo Lathe/Leg Stand/Bed Extension	£1359
18/36 Revo Lathe	£2499
BFLUX1 Extractor	£499
14/12 Bandsaw	£1299

PROXXON

Super Jigsaw STS/E	£85.99
Drill Grinder Package	£80.99
Long Neck Grinder package	£99.95

PYROGRAPHY

Peter Child Pyrography Machine	£119.95
Peter Child Splitters	From £32.99

RECORD/CAMVAC

DML250 10" Mini Lathe	£249
DML305-M33 Midi Lathe	£299
DML320 Cast Midi Lathe 1HP	£599
Coronet Herald Lathe	£899
Coronet Envoy Lathe Package	£1599
Coronet Regent Lathe Package	£1999
BS250 10" Bandsaw	£259
BS300E 12" Bandsaw	£599
BS350S Premium 14" Bandsaw	£749
NEW Sabre 250 Bandsaw	£349
Sabre 350 14" Bandsaw Package	£999
Sabre 450 18" Bandsaw Package	£1499

WG200-PK/A 8" Wetstone Sharpening System £159
WG250-PK/A 10" Wetstone Sharpening System £229

Large range of machines, tools, and accessories

ROBERT SORBY

Deluxe Tool Racks	From £29.95
447 Universal Sharpening System	£119
ProEdge Basic	Free Delivery UK Mainland £287
ProEdge Deluxe	Free Delivery UK Mainland £355
ProEdge Deluxe Package Inc. Proset, Long Grind Jig, Trizact Belt	Free Delivery UK Mainland £389

STOCKISTS OF

Beber Carving Tools, Flexcut, Hampshire Sheen, Hamlet, IGaging, Rhynogrip, Simon Hope, Shogun Saws, Stubai Chisels, Tormek, Trend

TaylorsMirfield.co.uk

Unit 17, Holmebank Business Park,
Station Road, Mirfield, WF14 8NA



A family run business specialising in quality pen turning kits.

Established in 2014.

**Brand New
Woodturning
Retail Shop
Coming to
East Yorkshire
in 2021**



TM Hera High End Ballpoint Pen Kit.
The TM Hera is available in Rhodium, Black Titanium
or Rose Gold with Black Titanium plating.

We also supply:

Finishes and polishes including Yorkshire Grit, Chestnut Products
and Hampshire Sheen · Project kits · Bowl Blanks · Pen Blanks

SUBSCRIBE TO OUR EMAIL/NEWSLETTER

It's free to join @ www.snaintonwoodworking.com
Keep up to date with offers, new products & demonstration days

Quick chuck tune-up

Mark F Palma shows how to tune up a chuck in five minutes



Chucks have a thankless job – we ask them to work from the day we unpack them without any care or maintenance at all. With a little attention in terms of a five-minute cleaning and lubrication, a chuck can be made to work more smoothly and safely. Before you start your clean up, dig out your owner's manual (or download it if you have lost it). Remarkably, if you read it, there is a section of the manual dedicated to how to maintain your chuck.

the thread adapter is secure and that the threads are straight and not damaged. Finally, look at the jaw carriers to make sure they are in the correct slots (each is numbered for a reason) and that they are not cracked or damaged. Also check any screws that hold the chuck adapter to the chuck body to ensure they are snug and in place.

Minutes two and three – clean up the jaws and screws

Take a pick to the hex holes and clean them out before inserting an Allen wrench and removing the jaws. Then take a wire brush to the screws and a rag to the jaws. Keep the jaws in order – each should be numbered and put into the carrier with the same number when reassembled. If you have finish spilled on the jaws put some solvent on them and wipe them clean. A light coat of machine oil on the screw threads and a light coat of wax to the jaws keeps them like new. The same goes for the chuck T wrench or Tommy bars.



Examples of chuck manuals

Minute one – give your chuck a safety inspection

Start by giving your chuck a safety inspection. Wearing safety glasses, use some compressed air to blow extraneous dust and debris off the chuck and jaws. If you have bent or cracked jaws they need to be replaced. Order replacement screws if your Allen screws have stripped heads or threads. Make sure that



Clean all the debris off the jaws and dig out debris from screws before removing

Minutes four and five – turn your attention to the chuck body

Chuck bodies are either open back or closed back. Each has its fans. Assuming the chuck is working reasonably well, you do not need to open up a closed back chuck for a minor tune-up. If you have not cleaned a closed-back chuck for several years, you may want to add a few minutes to the endeavour to open it up and find out if it needs more servicing.

Open-back chucks can be swiped out with a cotton bud. The threads can be cleaned out with a wire brush and a dental pick. A little more air will remove the loosened debris. Run the chuck carriers all the way in and wipe off the exposed chuck carrier threads with a cotton bud. Run the carriers out and repeat the process. You will be amazed how much dirt comes out from around the carriers. Next blow a little air around the carriers.

Put a light coat of machine oil on the sides of the chuck body where the carriers slide back and forth. Add a drop of oil into each of the screw holes in the top of the carrier. Run a cotton bud in the threads of the chuck adapter and put a drop of oil in those threads as well. Reassemble the chuck by first putting in all the screws loosely and then just snugging them down at the end. It is easy to over-tighten the screws. If you have set screws that allow you to lock the chuck on to the lathe spindle put a layer of Teflon plumber's tape on the threads to keep the screw from falling out and make sure the setscrew is backed off so that it doesn't interfere with the spindle threads. Lastly, run the jaws in and out a time or two to distribute the oil on the carriers. Be prepared to be surprised on how well the chuck works.



Open and closed-back chucks



Cotton buds work well to clean jaw carriers



Supplies for cleaning up a chuck



Tools for servicing a chuck

INSET: Do not forget to dig debris out of the chuck key

WOODTURNING MAGAZINE BINDERS

Keep your magazine
collection in order
with this stylish and
durable binder

Holds a year's worth
of issues

£8.99
(PLUS P+P)



www.gmcsubscriptions.com/binders
+44 (0)1273 488005



WOODWISE UK
EXOTIC TIMBERS LTD

Suppliers of Quality Exotic & Native Hardwoods

Bowl Blanks
Turning Squares
Pen Blanks
Lumber
Slabs / Logs
Australian Burls
Rare one of a kind pieces,
Orders cut to size

A Family run business with over
20 years experience in the exotic
wood trade. Well renowned for our
second to none customer service
and great prices. Based in the village
of Upper Hulme at the foot of the
famous Roaches.

*Large selection of numbered blanks, so
when ordering online what you see is
what you get !!*

VISIT OUR ONLINE SHOP
www.woodwiseuk.co.uk

Fast and efficient mail order
(including EU countries)

OPEN 6 DAYS Mon-Sat
Customers are very welcome to visit
our Mill, (appointment only)

07792 565 661
woodwiseuk@yahoo.co.uk
Upper Hulme Mill,
Upper Hulme,
Nr Leek, Staffordshire, ST13 8TY



glenn
lucas

est. 1995

Remote Interactive Demos and Classes

Tuition from your own home.

Join Glenn in his workshop in
Co Carlow Ireland, via video call
(e.g Zoom).

Group demonstrations and private
tuition for individuals, small groups
and Clubs are available.

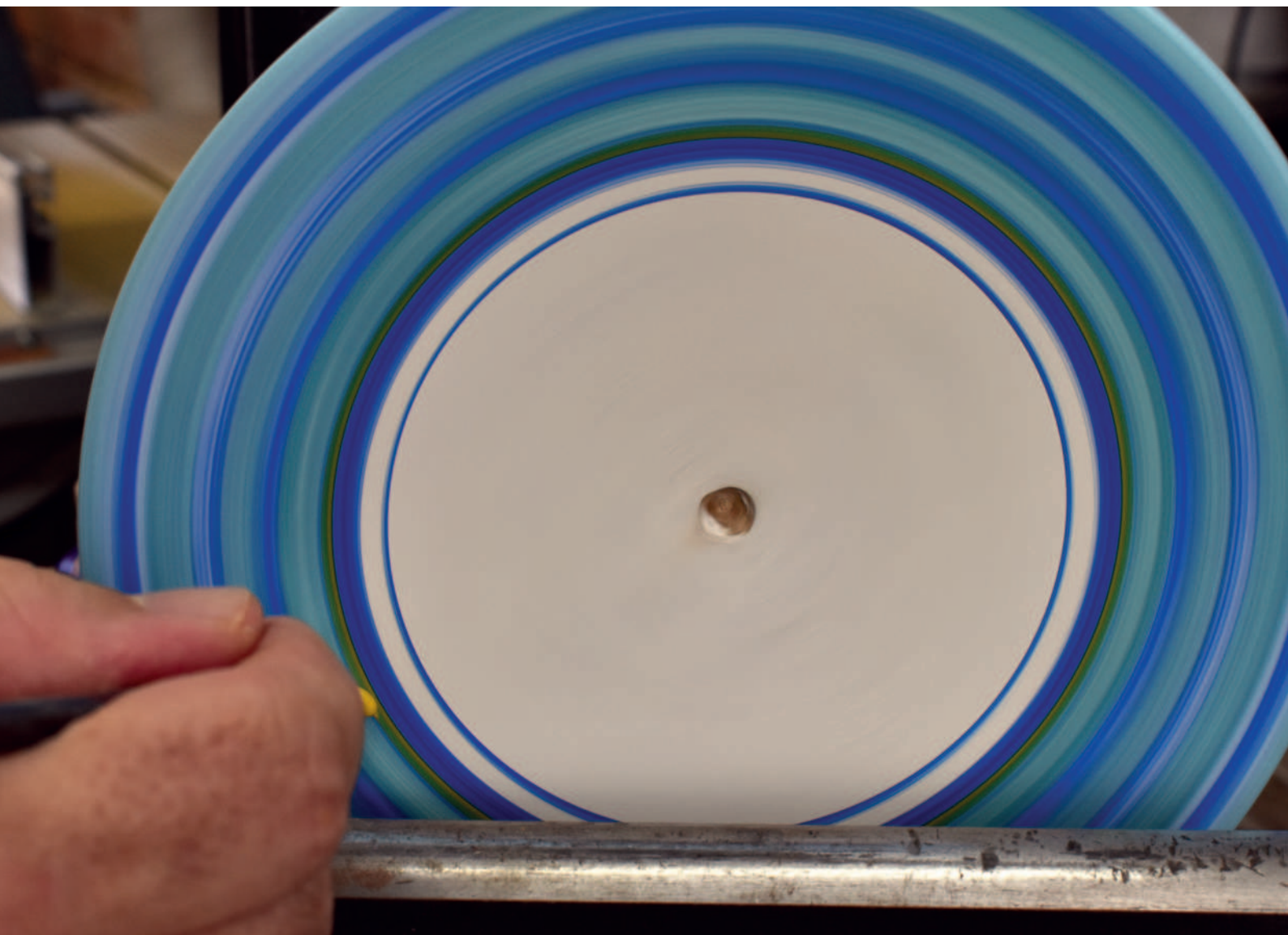


In the 'Mastering Woodturning' video series,
7 downloads available

Check our schedule and book your place on
upcoming Demos at www.glennlucas.com

Reach for those brushes

Stewart Furini shows a few easy techniques for adding colour



This month, I'll be looking at some ways of using brushes for adding decorative effects to turning. Although I show these techniques on faceplate work, there's no reason why they can't be tried on spindle work. These are methods that I'm sure anyone can use, so don't be worried if the thought of picking up an artist's paint brush fills you with a sense of inadequacy – we aren't getting close to the world of the artist here. I use a range of paints and stains, but there are no 'rules' here that have to be followed, just some ideas for playing around with and developing as you go along. Bear in mind that there is no finish on these practice pieces so they are not shiny or as lustrous as they could be.

I'll be covering finishing in the last article in this series in a few months' time.

Coloured rings 1

There are a few ways of making use of the rotation of the lathe to help with adding texture and decoration to your turning, and in a later article we'll look in more depth at using the centrifugal forces of the lathe. For this sample piece, we'll keep things a little more sedate and avoid flinging paint around the workshop. This simple technique can actually build up quite complex patterns of colour, or you can keep it to something more restrained and minimalistic. You need to use a low lathe speed of perhaps 300-400rpm so

that you don't inadvertently have your paint spread across your platter rim.

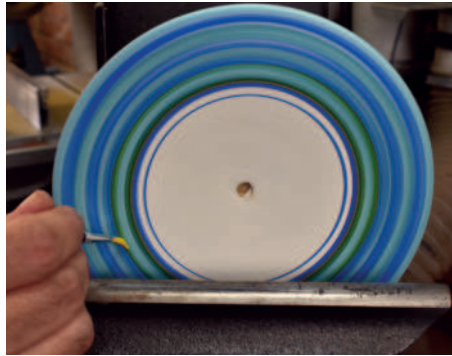
To prepare your rim, you'll need to sand it and then seal the wood with sanding sealer. I usually use an acrylic sealer in aerosol form, but a brush-on sealer, whether acrylic or cellulose, is fine under paint.

An alternative to sealer when using paint as the top coat is acrylic gesso, which is what I have used in this first example.

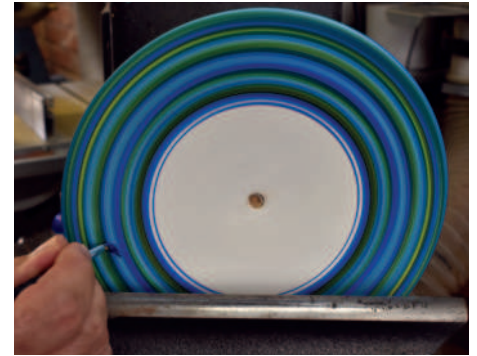
Unlike when working with stains and dyes, you will need to have more patience with using paints to allow for the longer drying time. Also, make sure your workspace is as free from dust and chippings as possible.



Metallic blue paint being added while the lathe spins at low speed



After the blue, some yellow was added



Add more paint if the first application didn't give enough coverage

Once your wood is sealed, choose your colours. I went for blue and yellow on the first attempt, with some black for added contrast. Load up your brush and apply with the lathe spinning slowly. Use the

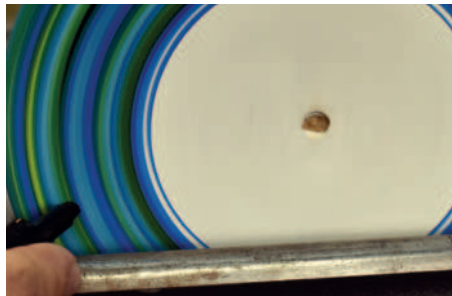
toolrest to help stabilise the brush. You will find that you get different results with different brands of paints – heavy-bodied paints should leave a more solid colour, while thinner-bodied paints may not cover

the base coat completely. As always, experiment and see what you prefer. You can always add several coats of each colour after the earlier ones have dried. If you want good colour separation between the rings, you will need to space your colours apart and factor in some drying time. I went for some colour merging on this one but did separate the first couple of colours on the rim, then did some blending in the spaces left between them.

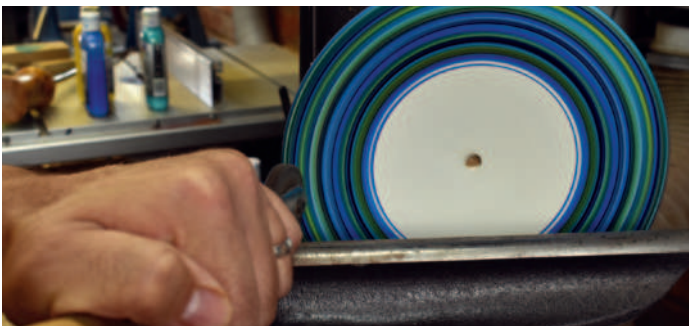
Not being one to leave it at just colour, I added some texture with a spiralling tool – just take care not to cut through all your colour to bare wood... of course, I've never done that myself... despite what the picture shows.



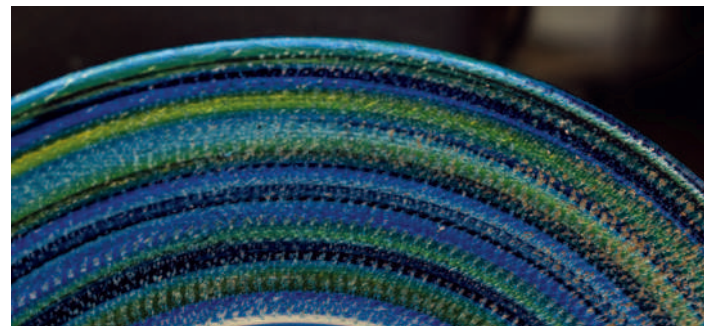
The finished colouring



A permanent marker was used to add black lines



A spiralling tool being used to add texture

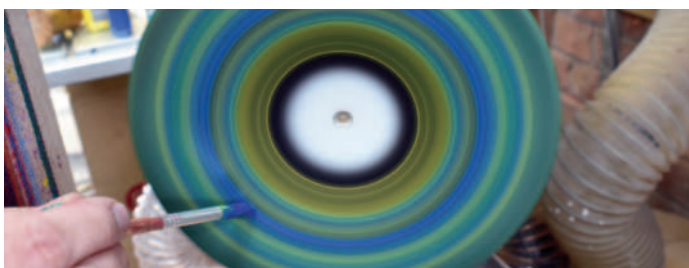


A close-up of the final effect

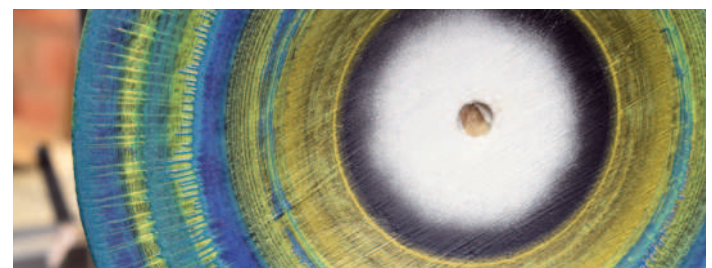
Coloured rings 2

You'll have read in my other articles my exhortation to just play and not be too worried about outcomes. Well, once I'd finished the first version of colour rings, and not wanting to stop playing, I gave the rim a quick sanding, though not back to a smooth surface – there's still some texturing left from the spiralling tool. A coat of ebonising lacquer was added and then more coloured rings were painted on. This time the lathe

speed was higher (so some protection of the lathe bed and workshop walls was needed). The higher speed caused the paint to spread a little, though the texturing prevented too much spreading. You get a different result with the higher speed – I'll leave it to you to decide which you prefer. If you want to give this a go, please protect your equipment from the effect of paint splatters.



Paint being added at a much higher speed



A close-up of the final effect

◀ Dry-brushing coloured rims

Dry-brushing is a great way to add accent and emphasis to a coloured piece of woodturning, especially if there has been some texturing done as well. If you have ever painted miniature figures, then you'll probably know all about it. With painting miniatures, the idea is to add highlights so a lighter colour is used. For your wood colouring you can use whatever colour seems right to you, and I often use a dark colour for creating a strong contrast.

In this sample piece, I've used a mini-angle grinder to add a rough texture to the rim, which has been sanded back with an abrasive nylon filament brush in a drill. Using a small paint brush, yellow, orange and red stains were painted on to the rim. The brushes are good over the texture as they allow you to get the stain into all the grooves; using paper towel or safety cloth to put the stain on might leave some bare wood behind.

You don't need much for dry-brushing: brush, paint and a bit of card



The textured rim ready for stain



Adding stain with a brush



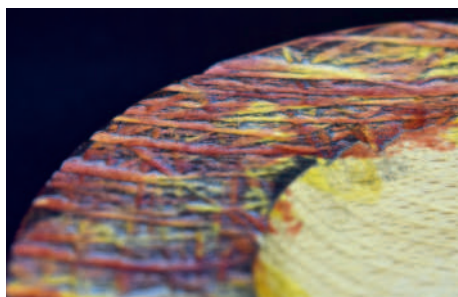
Dry-brushing with metallic black paint

When the stain is dry, which takes a matter of minutes, the dry-brushing can be done. I used some metallic black on this first attempt and it really helped not only to emphasise the texture, but to add a greater sense of depth to the finished look.

My second attempt, using the same bowl, was coloured with blue and royal-blue stains and then silver paint was used

with the dry-brush technique. Again, the dry-brushing helps to lift the texture and, on this rim, gives an almost stone-like look.

For me, not always having the cleanest of workspaces, this is a great way to work with paint as it's only one coat used over quick-drying stains, and as it's so thin a coat of paint, it is dry almost immediately.



Close-up of the final effect before a finish is added



Blue stains being painted on

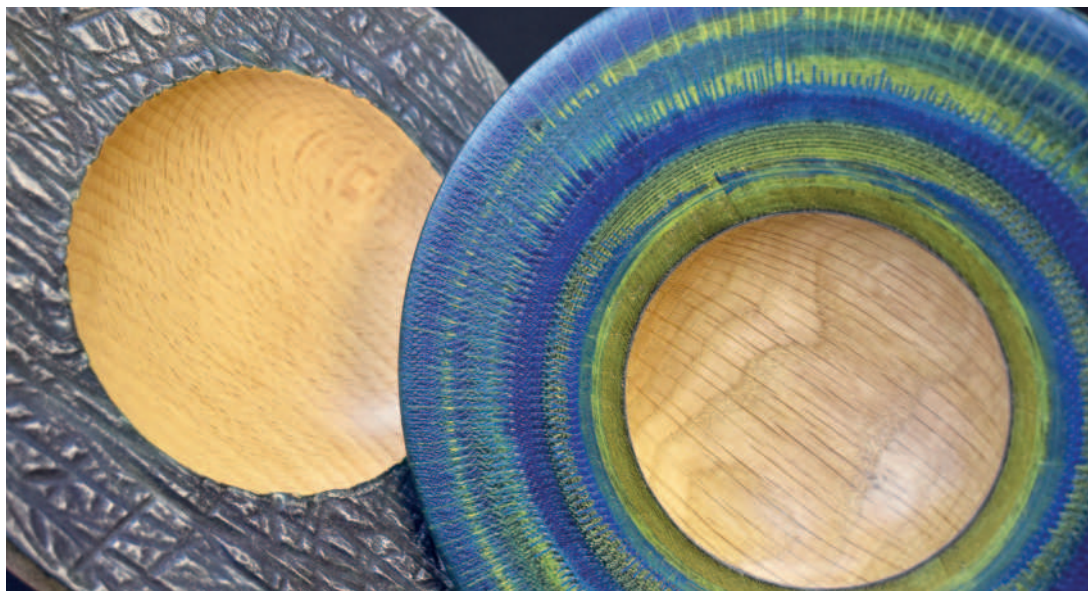


Starting to dry-brush silver with a make-up brush

End results

If you're new to colouring, I hope you'll give these simple techniques a try – the end results can be as colourful as you choose. My favourite of these two is the blue and yellow one as I have a preference for brightly coloured things. The blue and silver is a bit understated to my eye, so I suspect it'll be back on the lathe before long... probably it'll end up bright orange with blue dry-brushing. Now, where are my neon paints? ●

This month's pieces



hand tools and wood chisels specialist

Ashley Iles - Henry Taylor - Robert Sorby - Joseph Marples
Veritas - Clifton - Thomas Flinn - Morris - Ice Bear...

All items in stock, ready for dispatch..
*unless marked otherwise all prices inclusive of VAT



Henry Taylor
Decorating Elf
Texturing Tool

Kevlar Gloves (pair)

for only
£5.00

Braces (50+ types)

only
£14.00

Natural Leather Chisel Rolls

10 pockets: **£25.00**

12 pockets: **£27.00**

Henry Taylor
'Diamic' brand
woodturning tools
have been
produced in
Sheffield by skilled
craftsmen, from
the finest steel for
more than one
hundred and fifty
years.

Veritas Miniatures

Order online today at

www.toolnut.co.uk

New In..

Punches

Screwdrivers

Hinges

Handles and Knobs

Variety Of Rasps



Interactive remote demonstrations (IRDs)

Due to the pandemic there has been an explosion in the IRD field. Is it here to stay? Emiliano Achaval discusses the pros and cons



About four years ago, I helped with the foundation of the first woodturning club on the beautiful island I call home, Maui. Funds were tight initially and trying to bring in big-name, top-drawing professional woodturners seemed utterly out of reach. Slowly we built our account, and we were able to fly in some top demonstrators. Betty Scarpino and Dixie Biggs were the first of many. Fellow professional woodturner Lyle Jamieson told me he was trying to set some cameras in his studio, all connected to a laptop running a streaming programme. He offered to do an IRD (this is the accepted acronym everybody is using today for interactive remote demonstration). I gave him a resounding yes, even though I had no idea what I needed to do to receive the demo on our side.

Lyle lives in Michigan so to fly him in is a costly proposition, even

if all the clubs in Hawaii get together and split some of the costs. We were the first club in the world to document receiving an IRD.

It was simply amazing – there was Lyle, at home, we could see him in high definition, and we could hear him out of a big speaker. The most crucial part was holding a microphone, and as club members had a question, I could ask Lyle. He would stop, look at the camera and answer, in real-time, live, right then and there. Lyle, Alan Zenreich and I wrote an article for the Journal of the AAW about our experience. Soon after that, in part because I had some of the equipment needed, I started doing IRD. I have done dozens of them. I'm slowly covering every state in the US. I have done a few to small symposiums in Argentina, and recently I did one for 123 attendees from five clubs in England.



Overhead cables, a laptop and extended monitor, now standard equipment for a lot of woodturners

What exactly is an IRD?

An interactive remote demonstration is when a professional woodturner does a demo from the comfort of their shop, via the internet, to a club. The turner will have two or more cameras connected to a computer. They control the cameras with software installed on their computer and transmits over the internet with a programme, the most widely used being Zoom. On the receiving end, in this Covid-19 era, would be club members at home, watching on computers, big screen TVs, smart phones, or tablets. Before the Covid age, a club would call a regular meeting, and they would watch the demo on a big screen. The consensus is that IRDs are better than watching a turner in person. A club usually has only one AV camera. The professional has invested in at least three cameras and can control the angles and the switching. If you ever went to a big symposium, you sat in a room with 200 other attendees, only one camera, three big-screen TVs. Now, you are sitting at home, in your favourite recliner, an adult beverage in hand, petting your dog.

I know what you are thinking, and you are right; we are social, I too miss meeting my woodturning friends once a month. I miss the wood raffle. I miss seeing, feeling, and holding the pieces of the show and tell. But IRDs have served a purpose, to bring us together in these challenging times.



A regular camcorder is great because of the zooming capabilities, but you will need an adapter to use it

“IRDs have served a purpose, to bring us together in these challenging times”

Are IRDs here to stay?

In some of the IRDs I have done lately, I was told by the club president that they were having more members watch than attendees at their regular meetings. The reason? Some older members don't like to or can't drive at night, but they can tune into an IRD. Some live two hours away and are selective; if a big-name turner shows up, they will make the four-hour round trip. But it takes little or no effort to watch a remote demo. Most clubs ask me

to open the Zoom meeting an hour earlier so they can have a regular meeting. I'm then introduced and do my demo. When we return to 'normal' physical meetings, I hear clubs will continue streaming and/or transmitting the demo for those that can't make it. To cut costs, they will also continue hosting IRDs at their facilities.

When the AAW had to cancel its international symposium, it held a successful virtual online symposium.

◀ Where do I learn more about IRD?

Alan Zenreich is the godfather of IRD. He runs Lucidwoodturners.com. For anyone wanting to learn – whether a professional keen to start doing IRD or the club person in charge of the video system – Alan’s site is the place to start. When Lucid began a few years ago, there were just a few of us as members and growth was slow. Then Covid-19 appeared and within a month Lucid had hundreds of new members. Alan helps anybody who asks him. The technology involved is not complicated, just unfamiliar.

What are the costs for an IRD?

Like in everything else, supply and demand influence pricing; a top-tier, well-known turner can charge as much as \$350, maybe a bit more. He or she has no travel expenses, lodging, driving, or meals on the road. After the demo, perhaps, they can finish working on an order. An upfront investment is needed in web cameras, a microphone, a computer, brackets, etc., so the cost can be \$2000 or more depending on several factors. Right now, a lot of the things needed are out of stock. Everyone is working from home, and they use the same stuff we use to do IRDs. There is a lot of price gouging, so if you want to get started, do your homework – you do not want to pay \$250 for a webcam that initially costs \$80.

Connection requirements

Since this is a demonstration done remotely, a good, reliable, and fast internet connection is necessary. A spotty wifi signal is not conducive to a pleasant experience – a wired ethernet connection is preferred. The minimum speed required is five megabits per second download and 5MBPS upload. Of course, more is better.

Most laptops come with an integrated web camera and microphone. If no microphone or camera is available, you can still see the demo and ask questions via the chat window.

Safety issues

The most widely used software worldwide for IRDs is Zoom. Yes, there were some problems at the beginning when people were crashing meetings and causing havoc. We are all learning what to do to avoid this, and we take the necessary steps. Zoom has also been very proactive in taking care of any security issues. Overall, I’m confident in the programme, and I will continue to use it.

My equipment

I’m often asked what I use to do my IRDs. Giving specific brands doesn’t help as most of the things I use are backorder for months or longer. But I can give you a brief description of the basics. The most important part is my laptop. I recently upgraded to the latest, and it has helped to have a trouble-free and smooth IRD. I have four webcams and one digital camcorder connected to the laptop with an HDMI to USB adapter. Finally, I use my old iPhone wirelessly connected to the software on the computer. It’s great if I want to show something like how I grind one of my tools because it has no cables, so I can freely move it anywhere as needed.

Where are we headed?

For us here in the middle of the Pacific, IRDs have been around for four years and are here to stay. Our magazine is sponsoring the Woodturners Worldwide online symposium, which I’m part of. Thirty-five of the world’s best woodturners will be doing a virtual symposium this September. It’s already a success with the number of people who have signed up from all over the world. This will be a yearly, growing event.

Travelling for a professional turner is not only expensive, but it becomes harder to leave the shop, work piles up, the family waiting for his or her return. Mixing remote demos along with some selected travelling sounds very appealing.

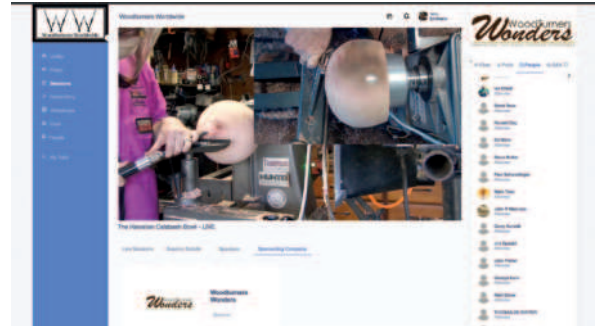
“Travelling for a professional turner is not only expensive, but it becomes harder to leave the shop, work piles up, the family waiting for his or her return. Mixing remote demos along with some selected travelling sounds very appealing”



An old Ipad above the lathe headstock use to control all the cameras

WOODTURNERS WORLDWIDE

Woodturning Magazine was a major sponsor for the first privately run international symposium. Matt Deighton of Woodturners Worldwide ran a very successful online virtual symposium. Over 1000 paid attendees watched more than 40 live demonstrations. They were all recorded, and you can access the recording for a full month. The consensus was a very positive one. Matt has stated that he will continue yearly with the online format. The AAW had to cancel its annual symposium. In its place, it had a very successful virtual symposium. Many people have expressed that they would like the option to log in and watch next year's symposium virtually.



Cindy Drozda outlines when and why she decided to start doing IRDs

I first became aware of the IRD movement when I met Alan Zenreich at the Atlanta AAW Symposium in 2016. His enthusiasm for the concept won me over. My original thought was that this would enable me to teach without travelling. What I found was that it won't actually replace the teaching I have been doing, but will add another dimension to it, or substitute for it if I want to start saying no to the offers of travelling to teach. The clubs that want me to come out for an all-day Saturday demo, and then a day or more of hands-on workshops, will still want to do that.

I had done 16 IRDs as of 1 March, 2020. Those were streamed to one device in a room full of people, and projected on to their monitor or screen. I would send them out a box of tools that I would be using, and an example of the demo project for them to pass around at the meeting.

I had a meeting scheduled with the Seattle Woodturners on 12 March. When lockdown was announced, suddenly 360 AAW chapters had to cancel their in-person meetings. I proposed to the SWT that we do our IRD to the members in their homes. They were concerned members didn't have the technology, but I was confident if they were communicating with members by email, everyone had the necessary technology. We did some practice sessions with the club officers, then with the membership, and decided to go ahead.

On 12 March, the first online-only, distributed, woodturning club meeting and demonstration happened. The attendance was about the same as they were used to at an in-person meeting, but with a difference. There were members who had not been seen at a meeting for months. Some were snowbirds who were at their winter homes. Some had moved away but kept up their membership. Others had not been able to drive to get to the meetings, or were house-bound. The technology worked flawlessly. We were all sold on the concept.

Since that first distributed IRD, I have done another 58 as of 8 November. From about one per month before the pandemic, I have done an average of seven a month since.

On 23 May, I did my first IRD to a group that was not made up of members of the same club. The attendees sign up on my website and pay by the virtual seat. I'm calling these Personal IRDs (Trent Bosch's term). This has been spontaneous and fun. I get to choose the subject, and go for as long as I want to. Most of my Personal IRDs are over three hours long, plus a social time before and after. Many of the participants have attended several, or even all, of them. There are a handful of others doing this, and I expect we will see a lot more.

WAS THERE A LEARNING CURVE?

There was (and still is) a tremendous, and often intimidating, learning curve. At first, Alan hooked me by saying that all I needed was a camera and a laptop and I could do an IRD. Well, that's more or less true, but it soon became obvious that I



Cindy Drozda has done a record amount of IRD's during this Covid era. Here she is, hard at work

would need more equipment and more learning to do the type of presentation that was on par with my in-person ones. After trying, with Alan's guidance, to use the equipment I had already, I decided to upgrade.

CAN YOU TELL US A FEW PROS AND A FEW CONS OF THE IRD?

I feel that there are far more pros than cons. It is bringing more woodturning to more people. And it gives us a way to enlighten non-turners to what we love about it.

A club with an evening meeting lasting a couple of hours can now get any demonstrator in the world for its meeting. These are clubs that would not have been considering flying me out to do several days of teaching. And a small club that doesn't have the budget, or the meeting space, for a big event can now get an international demonstrator to its membership via IRD.

The biggest downside of IRDs is that it's not as good for hands-on learning. But I believe the technology and our use of it will continue to improve, and that we will be able to offer instruction

to more woodturners than ever before. Some demonstrators miss the ‘crowd feel’ of being there with the audience in the same room – there’s an energy that’s missing without an audience.

It’s not the same, for sure, to be unable to go up to the demonstrator’s table and get a close up of their tools. And we all love to handle the demo piece right after it was made. We also lose out on the social interaction that goes along with having the demonstrator in the area for several days, or staying at the same hotel as all our friends at a symposium. Chatting online is really nice, now that we have no other option, but it’s not as fun as going out to a brew pub with the club members after the demo.

WHERE DO YOU SEE THIS TREND GOING?

The pandemic has launched us into this realm of technology faster than would have happened without it. Many demonstrators and clubs were working toward what we are doing now, though slowly. I predict that, even once we can meet in person again, most clubs will get set up for hybrid meetings, where the group meets in a room, but the meeting is also streamed to members who can’t be there. A club can now have members who don’t live near the meeting place – they can be anywhere in the world. Woodturners who have had to do without the interaction a club offers can now join one (or more) and participate in mentoring, shop tours, show and tell, and live demonstrations.

This means the processes of soliciting members, and selecting a club take on a new dimension. Clubs can advertise their meeting programme to woodturners all over the world to gain new members. Woodturners will look at what a club has to offer and join based on that rather than on the meeting being within driving distance. Same with a symposium. Of course, it will still be better to have in-person interaction once we can do it – online won’t replace in-person friendship, it will just make woodturning available to more people, and at a higher level.

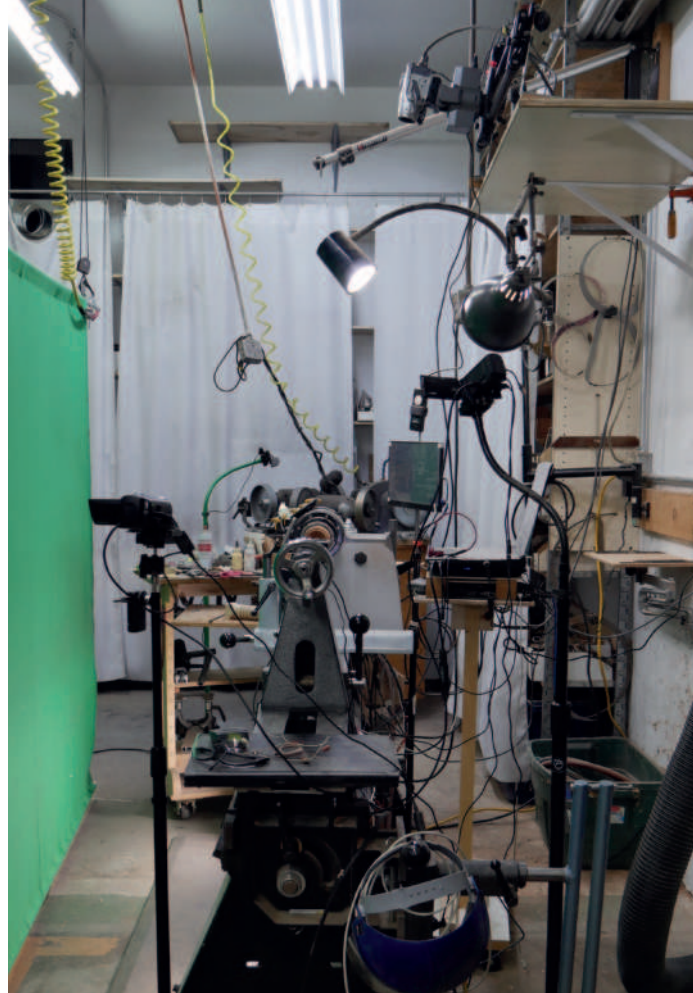
No longer will a club have to split into two groups because the venue becomes too small for the expanding membership. Clubs that are currently too small to have a workable budget can solicit members from remote areas, or who are unable to drive to meetings. Small clubs that typically can’t afford to bring in a nationally known professional demonstrator can now do it at a reasonable cost. Even a large club will typically not do more than one or two events a year with a non-local demonstrator. With IRDs, they can select from any demonstrator in the world for even their shorter monthly meetings.

We will begin to see a lot more people doing woodturning IRDs. Potential demonstrators who couldn’t or didn’t want to travel, or who don’t like big crowds, or who live in a remote area, can offer an IRD to any club anywhere. I expect to see a translation programme come out that translates our IRD into another language in real time!

Will the woodturning public still want to drive to meetings and symposiums if they can stay home? I predict we will see a blend. I expect the symposiums will have lower attendance – some of the small, local symposiums that have been struggling anyway might just call it quits or go virtual. As a community, we still love to gather in person. I have so many friends I have made while travelling for woodturning.

CAN YOU TELL US A BIT ABOUT YOUR EQUIPMENT?

In 2018 when I was first gearing up, some of the software and hardware available today was not out. I got into it the way I did because of what worked best at that time. I’m happy with how my set-up works, but if I were starting out today, I might go a



Cindy Drozda dedicated area in her studio for IRD’s, complete with a green screen for the background

“I predict that, even once we can meet in person again, most clubs will get set up for hybrid meetings, where the group meets in a room, but the meeting is also streamed to members who can’t be there”

different route. And I am constantly adding new equipment as I discover better ways.

I don’t think it’s the best idea for a new demonstrator to get my equipment list and buy all that exact stuff. It would get you a workable system, but it might not be the best choice at the moment. The quality, features, and availability of the software and hardware are changing rapidly right now.

Also, the equipment that makes sense for a professional demonstrator is different from what would suit a club that wants to stream in-person meetings.

Lucid Woodturners has a document library with equipment lists from several demonstrators, myself included. I, and others, have YouTube videos showing the IRD setups. My list from 2018 is different than the one from 2020.

Even better, and more up to date, is the personal assistance available from Lucid members. There are bound to be other members trying to do what you are, and we freely share advice and experiences. As with anything, there are many different ways to get to the same end. Equipment and methods are available to suit different budgets and goals. There’s no such thing as a one-size-fits-all IRD equipment list.

Because of the way I am, and how I do things, I have spent many thousands of dollars on high-quality video equipment, hardware, and software. It’s possible to spend a lot more. It’s also possible to do it for a whole lot less. Like everything in woodturning, there are many ways to do the same job. And many different tools that will get us to the same place. ●

Allan Calder's Ltd Sandpaper Supplies

Unit 2B Churnet Works, James Brindley Road, Leek, Staffordshire ST13 8YH



We are supplying top quality brands of sanding abrasives for all types of wood turners.

Web: www.sandpapersupplies.co.uk

**Email: sandpapersupplies@yahoo.co.uk
Tel: 01538 387738**

LINCOLNSHIRE WOODCRAFT SUPPLIES

Specialist in high quality
2", 3" and 4" lime carving blocks
The Old Sawmill, Burghley Park, London Road
Stamford, Lincs. PE9 3JS

Open 9am to 4pm - Monday to Friday
9am to 12:30pm - Saturday

Please call beforehand if coming from some distance

Tel: 01780 757825 Mobile: 07808 319280

www.lincolnshirewoodcraft.co.uk

**Next day delivery if ordered by 12.00pm
20% off sale over £20**



OakleaWoodcraft.co.uk

We specialise in supplying Woodcraft accessories and tooling for the Woodturner stocking both exotic and homegrown hardwoods

· Kits · Tiles · Accessories · Tooling



www.OakleaWoodcraft.co.uk | info@oakleaproducts.co.uk | 01952 884064

The Workshop, Calcutts Road, Jackfield, Telford, Shropshire TF8 7LG

Learn Finishing

Instructional DVD & Supplies

www.TedSokolowski.com

570 - 937- 9400 USA



Metal Inlay DVD & Supplies

Unleash your creativity!

Web site: **www.TedSokolowski.com**



MAIL ORDER
NARROW BANDSAW BLADES
MANUFACTURED TO **ANY** LENGTH
PHONE **NOW** FOR IMMEDIATE QUOTATION
OR WRITE TO US FOR A PRICE LIST

TRUCUT

Spurside Saw Works, The Downs, Ross-on-Wye,
Herefordshire HR9 7TJ

Tel: 01989 769371 Fax: 01989 567360

www.trucutbandsaws.co.uk

Now Available Hunter Tools Europe

Made in the USA shipped from the UK

www.HunterToolsEurope.com



THE WOOD SHED

11 Lowtown Road
Temple Patrick
Co. Antrim BT39 0HD
02894 433833

www.wood-shed.com

The Wood Shed

native and exotic woods

woodturning tools

accessories • finishes

woodturning courses for all abilities



**WESTCOUNTRY
machinery 4 wood**

sales@machinery4wood.co.uk
www.machinery4wood.co.uk
01726 828388

**ISCA
WOODCRAFTS**

The Craft Units,
Tredegar House
Newport NP10 8TW
Mob: 07854 349045
www.iscawoodcrafts.co.uk
iscawoodcrafts@yahoo.co.uk

Suppliers of quality blanks,
spindles and boards in
native hardwoods and
exotics. Also abrasives and
finishes. We will cut to
customers requirements.
Visits to clubs welcome.
Mail order available.

Toxicities of woods

Pete Moncreiff-Jury looks at the hazards of poisonous timber

One of the perennial questions that crops up is whether woods such as yew, laburnum etc. are suitable for goblets, salad bowls and the like. In other words, are they poisonous? The simple answer is yes, they are poisonous. The fact is that most woods contain toxins of one potency or another and if we wish we can scare ourselves away from using any and all woods apart from a few, such as sycamore or beech – though sycamore has toxins in the seeds that can be fatal to horses and other animals. Some woods, such as yew, are definitely toxic and the only part of the tree that doesn't contain the potentially dangerous taxine alkaloids is the flesh of the berries. There is a long history of the yew being part of the druidic culture and it has always been associated with death in pagan culture. The main toxicity is found in the leaves, the bark and the seeds, but the danger to woodturners is more to do with the fact that the minor toxins found in the wood can seriously affect some people more than others and the results can be bad. This is the problem with the whole matter of the toxicity of woods. Personally,

I find the only woods that have affected me have been mahogany and sapele – both make me sneeze. Apart from that I have had no problems with any woods I have used in my career. That does not mean that I can say, as some do, that such and such a wood is safe. To do so would be irresponsible, in my opinion.

Sycamore, an acer, has long been advocated as ideal for chopping boards because of its supposed antibacterial properties, yet the two woods that proved most effective in killing bacteria on testing were pine and oak. Acer can be used and does have some antibacterial properties, but is by no means the only wood or even the best. As with so many things, a lot of so-called knowledge that gets spread around is like Chinese whispers and needs to be properly researched before being believed.

What I am saying is quite simply that we need to be responsible, to ourselves and others. This means not spreading ideas and theories about what is good or bad based simply on our experience or what Jim next door says. All woods in dust form, as when

sanding, can be hazardous, but some can be seriously dangerous, if not to you then to others. Some turners never use a face mask or any form of protection and never seem to come to harm, but hopefully wouldn't advocate we all throw away our PPE.

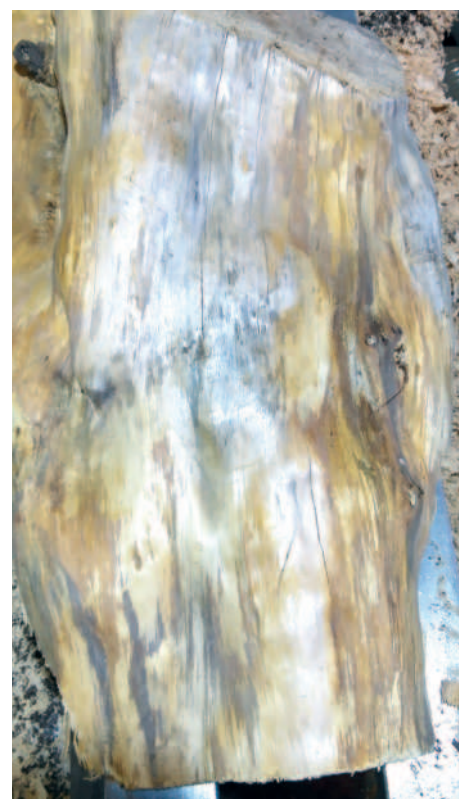
Toxicity of wood, then, is not a thing to ignore, pretend is myth or be casual about. As woodturners we are perhaps more likely to suffer from dust inhalation than actual poisoning and hopefully we take suitable precautions, but we do need to realise that all of us could be prone to serious problems from some woods. To try to decry the dangers in woods such as yew, laburnum, rosewood, and even walnut is to take a risk with your health and perhaps even your life. If you are willing to do that then that is your personal choice, but I encourage all not to try to portray the potential dangers as minimal and limited. One person on social media dismissed the dangers of yew, saying that you would have to start chewing it to get any problems. True, unless you had some form of allergy and get sick or develop serious rashes or even ulcers.



Rosewood dalbergione



Laburnum cytisine



Yew taxines

PHOTOGRAPHS BY PETE MONCREIFF-JURY

GO MICRO WITH AXMINSTER WOODTURNING

THE PERFECT TOOL FOR PRECISION WORK

Designed for precise work and projects, the stainless steel handle is made in Axminster and features a contoured grip with light knurling, designed to give you maximum comfort and control when you turn.

Axminster Woodturning Micro Handle & Set of 6 Tools



720763

Supplied with six interchangeable HSS chisels and tools, you'll be able to complete all your precise work and projects!

- Round nose scraper cleaning inside bowls and coves
- Swan neck scraper reaches difficult areas
- Diamond side scraper for finishing the bottom of boxes
- Round side scraper for undercutting
- Plus a 6mm skew chisel and 6mm spindle gouge

Only £94.98

Buy the handle on its own for just £19.98!

Axminster Woodturning
Micro Handle - 106781



A GREAT SET OF MICRO TOOLS!

"The handle is comfortable and heavy allowing firm and positive contact with the tool rest. The individual tool blades are well made from HSS and arrived sharp. Each fits firmly in the handle with two allen screws to lock and are surprisingly quick to change"

MORE MICRO TOOLS AVAILABLE - MADE EXCLUSIVELY FOR AXMINSTER WOODTURNING.

Choose between a variety of tools; each one fits directly into the Micro Handle.

MORE MICRO TOOLS
COMING SOON!



CROWN GOUGE
107127

The shallow flute is perfect for cutting coves and beads.

£26.78



CROWN SKEW CHISEL
107128

Use for fine planing cuts, rolling beads and cutting vee grooves.

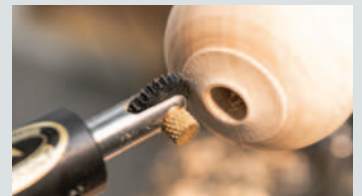
£18.98



CROWN PARTING TOOL
107129

The ideal tool for parting off or sizing.

£18.78



**CROWN SPIRALLING
AND TEXTURING TOOL**
107125

Add a variety of decorations and patterns to your turned work.

£51.68

AXMINSTER TOOLS

We share your passion.

To find out more, **visit one of our stores**, search **axminstertools.com** or call **03332 406406**.

For the complete Axminster experience and to keep up with projects, how to's, news and much more, browse knowledge.axminstertools.com and follow us on social media.

Prices may be subject to change without notice.

Axminster • Basingstoke • Cardiff • High Wycombe • Newcastle • Nuneaton • Sittingbourne • Warrington



Rated 'Excellent' on



Trustpilot

Robert Sorby

PROUDLY MADE IN SHEFFIELD, ENGLAND



THE No.1 CHOICE

For Woodturners!

THE MOST COMPREHENSIVE CHOICE OF WOODTURNING
TOOLS ON THE MARKET...

- Core Woodturning Tools
- Woodturning Sets
- Specialist Woodturning Tools
- Sovereign System
- Woodturning Accessories
- Measuring Tools
- Sharpening Tools

ProEdge
The Ultimate Sharpening System



Visit our website to find your nearest stockist

www.robert-sorby.co.uk

Robert Sorby, Athol Road, Sheffield S8 0PA ENGLAND

Tel: +44 (0) 114 225 0700 E-mail: sales@robert-sorby.co.uk

FOLLOW US ON SOCIAL @ROBERTSORBY



Made In Sheffield Mark, a symbol of the City region's ongoing commitment to quality and excellence.

