

Woodturning

THE WORLD'S LEADING MAGAZINE FOR WOODTURNERS

LES SYMONDS GUEST EDITOR



Turns a candelabra
Discusses the RPT's rebrand
Profiles turner Nick Simpson,
aka Professor Bergenstrauser

PROJECTS Kempston pot • Ambrosia maple platter
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THE HEART OF THE TURNER

Why do we turn? To many, it is as much about the process as the result. Some find a thrill throwing wet chips through the air. Others find reward in the meticulous arrangement of segments. The meditative qualities of sanding and finishing should not be ignored. Adding layers of color, carving and texturing further add to the creative experience. The results vary: perhaps an elegant utility piece to be enjoyed in the kitchen, or a shelf bound heirloom that passes through the generations. In all cases, the final result is a record of the turner's process.



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Guest editor's letter

Les Symonds

How's your ikigai?

A few months ago I acquired an injury that put me out of action, so far as woodturning was concerned, for a little over three months. In that period I had plenty of time to think on things, eventually coming to the conclusion that my life had been a little out of balance. That was a shame, because the lockdown periods of Covid-19 had previously resulted in a similar set of circumstances and yet, having reached the required age for the receipt of state pension five years earlier, I was once again teaching woodturning, writing about it and doing it for a full five days each week while trying to pack family and relaxation time into the remaining two. Thinking on these things, I discovered the concept of ikigai, a Japanese term for a sense of purpose and fulfilment.

For all souls, ikigai considers four aspects of life, namely the things that we do (or make), the things that we're good at, the things that we get paid for and, finally, the things that the world (or the society in which we live) needs. The whole idea of ikigai is that we address all four of these aspects and find a balance within them that promotes our sense of fulfilment. Indeed, if we fail to address all four aspects with some degree of equality, then life is out of balance and we should question its purpose.

What privileged people professional woodturners are. They automatically fulfil much of the above criteria and it is often the case that they follow a passion into a career, but what of those who are hobby turners? Can things be so convenient for them? What if a person is stuck in employment (or unemployment) against their choice and therefore not achieving their ikigai; well, this is where woodturning can help. We can easily

see how following a hobby can satisfy the

first aspect listed above, and if we become good at it, then the second falls into place and other aspects can surely be addressed with a little thought.

For my own part, unable to continue to make the items of the size and weight that I would normally choose to make, I made other, smaller things. A few local, worthy causes needed items that could easily be turned and, while such charitable causes do not help us to address the third aspect of ikigai mentioned above, they certainly can help us to achieve a balance between simply selling our work for the best price we can get for it and being charitable.

If you are able to turn, if you enjoy what you do and what you make, if you can gain some financial reward for your work and if you are providing something that people around you need or want, then you truly are blessed and your ikigai stands a good chance of being in balance. If these things do not apply to you as a turner, then see what you can do to get a little more balance in your life and use the skill of woodturning to your advantage to help you to achieve more.



生き甲斐 (ikigai)



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Contents

Issue 375



Cover image by Heledd Roberts Photography



12



6

Guest Editor

- 3 Guest Editor's letter**
Les Symonds welcomes you to this issue of *Woodturning*
- 6 Table-centre candelabra**
Les Symonds turns a six-branch centrepiece suitable as a project for beginners
- 12 Woodturning steampunk**
Guest editor Les Symonds enters the surreal world of Nick Simpson (aka Professor Bergenstrauser)
- 18 Rebranding the Register**
Les Symonds discusses the new look for the Register of Professional Turners

Community

- 53 Subscriptions**
Discover our latest offers for subscribers
- 84 Community news**
Take a look at what *Woodturning* readers have been making and find out about the latest turning news and events
- 103 Next issue**
A sneak peek at what's in store in the next issue

Features

- 78 Diary of a professional woodturner – part 16**
Richard Findley talks twists, catches, steam trains and web building in his latest diary
- 91 Torn loyalties**
In his latest Tales from the Headstock, John Holloway dissects his copy of *Woodturning*
- 104 Your inspiration comes from... ?**
Pete Moncrieff-Jury ponders the sequence of events in the creative process of turning



94



12



Techniques

- 28 Grain direction**
Pat Carroll discusses grain direction for beginners
- 48 Stone alternative**
Janice Levi explores surface enhancement using plastic pony beads
- 62 Kurt's clinic**
Kurt Hertzog answers readers' questions
- 72 Using Jesmonite**
Adrian Jacobs creates a bowl from a rejected project by adding a rim and foot in an eco-friendly casting material
- 92 Stop and measure**
Mark Palma offers some sage advice about discipline when it comes to assessing



Projects

- 20 Kempston pot**
Andy Coates once again decides to copy a copy of an original object – Graham Taylor's reproduction of the Kempston Window Urn
- 30 Little dipper**
A honey collector for Kevin Alviti is all about portion control for his little people
- 34 Blackwood and maple box**
Andrew Potocnik uses a halving technique for this stylish creation
- 42 Finial box with natural edge**
John Hawksell turns a yew log into an attractive footed, finial box
- 54 Ampoule bud vase**
Jim Duxbury creates a sophisticated-looking object with some salvaged glass ampoules
- 66 Art Deco-style vase**
Sue Harker shows how to turn a multi-function yo-yo vase
- 94 Ambrosia maple platter**
Mike Stafford highlights the figure of this piece with texture and colour



HEALTH & 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).

Table-centre candelabra

Les Symonds turns a six-branch centrepiece suitable as a project for beginners

This project has been designed specifically for novice turners. It might push you a little in that it might appear to be a complex arrangement of several pieces, but the processes used are quite basic. The step-by-step instructions have been written as a clear, simple guide for you to follow and the equipment needed can be found in most hobby workshops.

You do not have to use the species of timber that have been used here (mahogany and sycamore), but if you are substituting other species, ensure that you use a fairly straight-grained timber for the candlesticks, avoiding any cross-grained, burred or otherwise knotty timber. Furthermore, the diameter of the candlesticks has been kept to a thickness of 16mm, but you could reduce this if your skills are up to working with thinner, lighter spindles. If you wish to do this, take a look at the work of the American turner Rude Osolnik (1915-2001), whose candlesticks were exceptionally graceful with slender stems that many people attempt to copy. As a beginner, these would almost certainly be too slender for you and you might even consider them too delicate for regular use, so make a compromise that suits you.

Your centrepiece can be used with all manner of decorative items in its central recess. In our home we use fir cones regularly – especially at Christmas – blown quails' eggs at Easter and dried flowers in the summer. Please do read the health and safety notes with regard to the use of suitable candle inserts.



CANDLE CUPS



The candle cups used in this project are of solid brass, although cheaper, brass-plated versions are available. Most suppliers of accessories for lathe-turned projects stock one, or more versions of candle cups for you to choose from and they are also widely available through internet auction/sales sites. They are an essential aspect of this project.

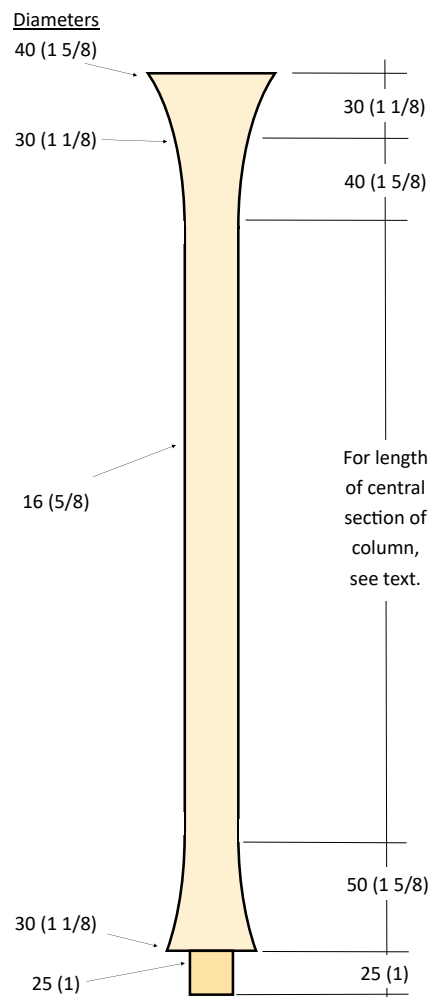
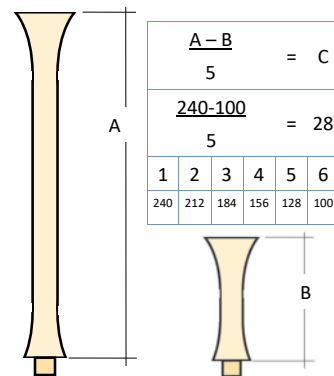
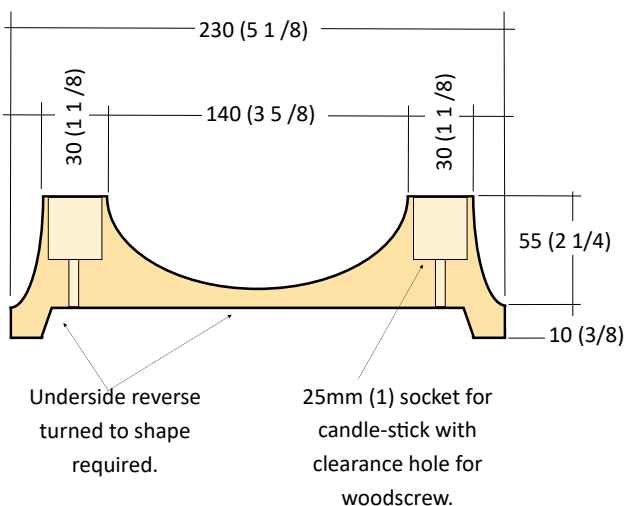
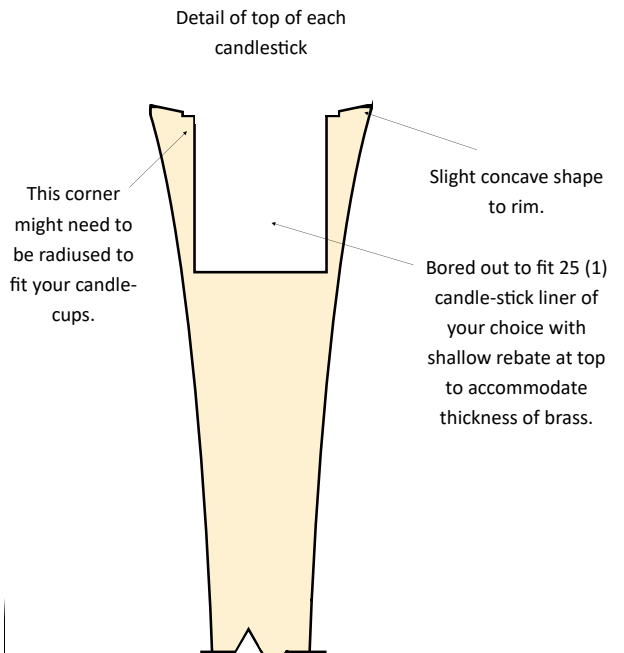
Plans & equipment

Tools & equipment

- PPE & RPE as appropriate
- Drive and live centres
- Chuck with 30cm and 50cm jaws
- 100mm faceplate
- Spindle roughing gouge
- Bowl gouge
- Spindle gouges
- Skew chisel
- Parting tool
- Round-end scraper (optional)
- Jacobs chuck with 25mm Forstner bit
- Drill stand/press
- Steel rules
- Callipers (dividers)
- Digital callipers for measuring
- Try square

Materials

- Mahogany, 6 pieces, all 40 x 40mm section
300, 270, 240, 210, 180 and 150 long
- Sycamore, 1 @ 250mm diameter x 60mm thickness
- Scrap wood pieces for reversing chucks and jigs
- Satin lacquer aerosol spray
- 2-part epoxy adhesive
- 6 screws, each 4 x 50mm
- Abrasives to 400grit
- 6 solid brass candle-cups to fit 25mm candles



◀ The six candlesticks

1 Set any one of the candlestick blanks between centres and use a spindle roughing gouge to reduce it to a cylinder, the diameter being the greatest that you can achieve out of your blank. As the workpiece becomes almost cylindrical and for the last few cuts, present the gouge at a slight angle rather than square to the timber. This causes a cut which shears the shavings away, leaving a cleaner surface.

2 Form a tenon on one end of the workpiece to fit your chuck jaws. Be quite precise with the profile of the tenon because the longest of the candlesticks will be projecting out of your chuck jaws considerably.

3 Use callipers to measure the diameter of each candlestick and make a note of the measurement on them. Often when rounding-down square stock, there can be slight variations in what we can achieve as a maximum diameter from our timber, so the purpose of this is to work, from this point onwards, to the size of the smallest one of the six pieces.

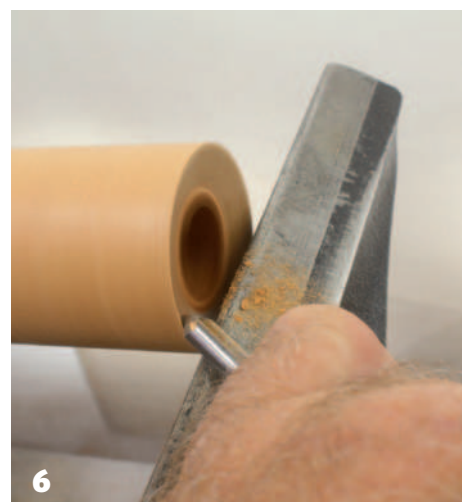
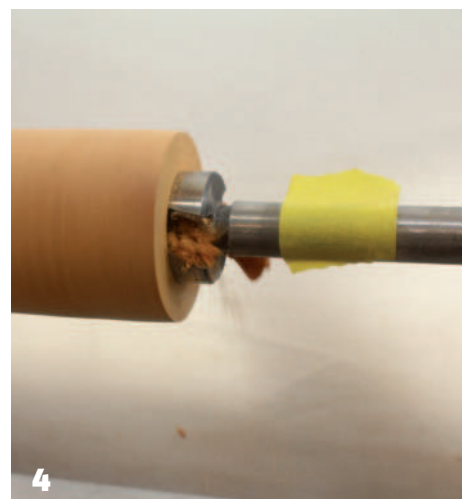
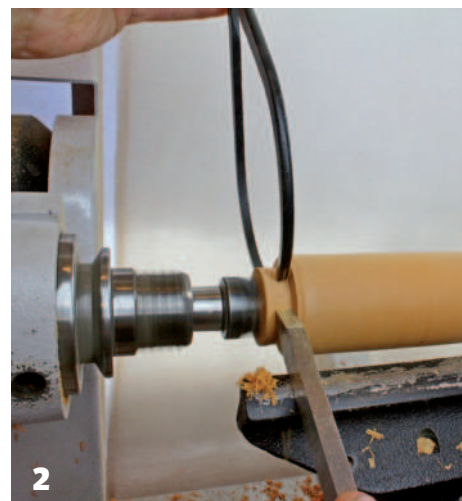
4 Set the longest of the six workpieces into a chuck with the jaws tightened such that it just barely grips the timber, then bring the tailstock up, engaging the live centre into the centre mark made in Step 1. Clamp and tighten the tailstock, then tighten the chuck. This will mean that your workpiece is mounted and centred accurately, thus ensuring the minimum of waste. Drill a 25mm diameter hole into the tailstock end to a depth suitable to accommodate the candle cups.

5 Re-engage the drive centre in the tailstock and skim the workpiece down to a millimetre or two below the smallest diameter you measured in Step 3. If you are unable to do this with a skew chisel, a well-sharpened spindle roughing gouge, or a sharp 12mm spindle gouge could be used.

6 Retract the tailstock, set the toolrest across the end of the workpiece and use a small spindle gouge to clean up the end grain, leaving a slightly concave surface.

7 Set the toolrest so a parting tool can cut at, or just above, centre height, then form a small groove immediately to the left of the central 25mm hole, to accommodate the flange on the brass candle cup. Hold the cup so it is effectively the wrong way around, check it for a good fit into the recess, then make any adjustments necessary.

8 Place a candle cup on to a fingertip and gently insert it into the aperture to check for a good fit. Note that candle cups usually have a radiused corner between the rim and the cup, so you may need to make slight adjustments to the aperture for the cup to fit. Also check for depth and adjust if necessary. If the cup is a tight fit and becomes jammed in the aperture, simply use a small strip of gaffer tape, pressing the sticky side against the brass to pull it back out.



9 Mark out a pencil line around the workpiece, 30mm down from the end. This indicates the position of the bottom of the aperture for the cup.

10 Use a live centre in the tailstock and engage it with the aperture in the end of the workpiece to give added support. Take a freshly sharpened parting tool and cut a shallow groove immediately to the left of the pencil line, to such a depth that you leave a 30mm diameter core of timber. Later cuts, when shaping the top of the candlestick, will be made down to and just a millimetre or so beyond this cut, so be quite accurate when cutting this groove.

11 Mark two more pencil lines around the workpiece, one at 70mm along from the end, the other 35mm to the right of the chuck jaws. The 70mm line marks the extent of the shaped top to the candlestick, while the 35mm section at the chuck-end will accommodate a tenon on the end of the candlestick, and room to part the workpiece off when you have finished shaping it.

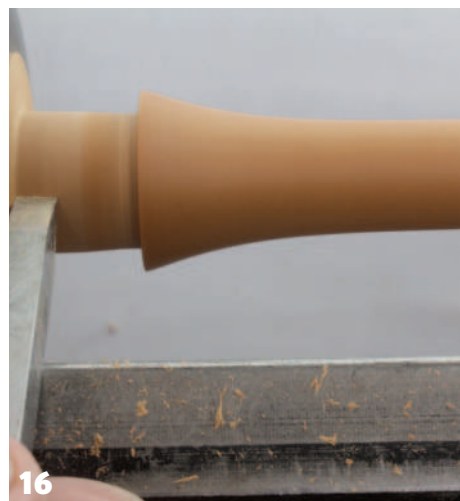
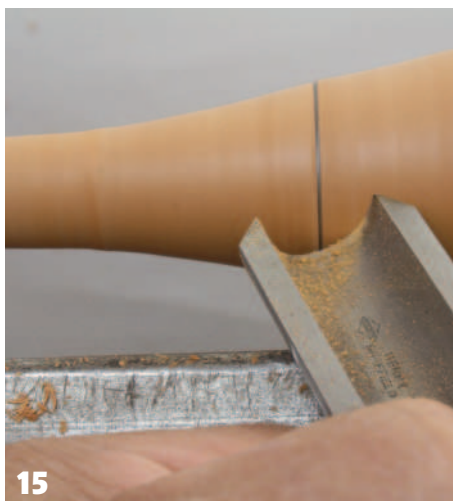
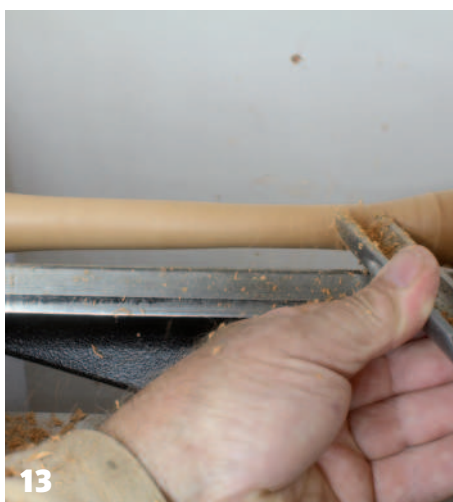
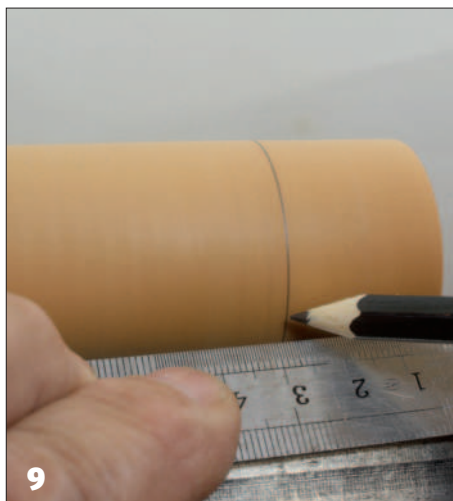
12 Immediately to the left of the 35mm line, use a parting tool to cut a groove, leaving a 25mm diameter core.

13 Use a skew chisel or a spindle roughing gouge to rough-out the general shape of the candlestick, taking care not to cut below the groove at the upper end of the candlestick, which you cut in Step 10. The central, cylindrical part of the stick can be reduced to about 16mm (or less if you wish) while the very bottom of the stick can be reduced to 30mm and the very top kept to the maximum diameter that you have chosen to work to.

14 Refine the shape at the bottom of the candlestick, blending the 30mm diameter into the central, 16mm shaft.

15 Repeat the process at the top of the candlestick, taking great care not to reduce the diameter at the position of the groove at the 30mm line, by more than a millimetre or two and aiming to have the blend from the very top, down to the central 16mm section, completed by about 70mm down from the top. Abrade the whole candlestick down to 400 grit. Note that you will be sanding across the grain, so check regularly to see if there is any excessive scratching from the coarser grits and remedy this by sanding along the grain if you need to.

16 Use a parting tool to finish cutting the 25mm tenon. It can help to use a 25mm Forstner to cut a hole as a sample mortice, in a scrap piece of timber, then turn a sample tenon on a scrap of timber to determine at exactly what diameter you get the best tenon-to-mortice fit. You will often find that the Forstner bit cuts a tiny bit oversized, so a tenon might need to be a little oversized as well. Make a note of the overall length of the candlestick, from the very top down to the point where the 25mm tenon commences – we will call this length A. Finally, use a fine-toothed saw to cut the candlestick off the stub which remains in the chuck.



- ◀ **17** Use the shortest of the workpieces and shape this in exactly the same way, forming the overall shape by working back from each end and note that there will be hardly any straight cylindrical section in the middle of the stick. Make a note of the length from the very top of the candlestick, down to the bottom, at the shoulder immediately above the 25mm tenon. We will call this length B.



- 18** Now some maths to determine the lengths of the remaining four candlesticks. Simply deduct B from A and divide by five, giving measurement C. Refer to the drawings to see how this all worked out for the table-centre made to illustrate this project, apply the maths to the lengths of your workpieces, then mount the second shortest workpiece on the lathe, mark out its overall length and shape it as previously described, repeating this process until all six are complete.

The base

- 19** You can now start work on the base by mounting it on a 100mm faceplate and skimming the edge to an overall diameter of 230mm. Start by roughing the shape down until all flats or saw marks are removed from the edge of the blank, and make your final cut from right to left to ensure that there isn't any breakout of fibres on what is to become the outer bottom edge of the base.

- 20** Form a chuck recess on the underside to fit your chuck jaws and make sure that you retain a central portion and centre mark for reverse turning the base after all the shaping has been complete.

- 21** Make a pencil mark to draw a circle of 160mm diameter on the underside, then use a parting tool to form a groove, about 10mm deep and 10mm wide, centred on the line just drawn. When the table-centre is nearly finished, six screws can be inserted up through this groove, one into the bottom of each of the candlesticks.

- 22** Remove the workpiece and unscrew the faceplate, then set the workpiece into your chuck and return it to the lathe before skimming off the top surface to a clean finish. A push cut or a pull cut could be used, as you prefer.

- 23** Mark two pencil lines, one on the top at 200mm diameter and one around the edge at 10mm up from the bottom. These two lines delineate the extent of the curved surface between the bottom edge and the upper face of the table-centre.

- 24** Use a bowl gouge to form an attractive, concave shape between the two lines. To ensure that you are cutting with the grain, cut from right to left to achieve the best finish. If you experience any difficulty finishing shapes like this, keep the curve fairly shallow so that you can fit your round-ended scraper into it and gently scrape the surface to a finish.

HEALTH & SAFETY

There are no great issues of H&S with the turning of this simple project, but as ever, there are issues worth mentioning in any project which uses candles. First, suitable candle cups or stands must be used to absorb and displace the heat of the candle. Any wooden candlestick which does not have such hardware installed runs the risk of becoming charred and/or catching fire in use. While this might not happen with candlesticks which are used very infrequently, you must consider that the heat of the

candle dries the wood at the top of the candlestick to a lower moisture content than the rest of it. With repeated use it is quite possible that the moisture content will drop below that at which the timber can self-ignite under the heat of the candle.

Furthermore, this project is designed as a decorative table-centre. It is not a bowl and should not be used to hold items such as fruit or sweets that people might be tempted to reach into, past the burning candles.



25 Draw a third pencil line to form a circle of 140mm diameter on the upper face, then use your bowl gouge to hollow out a rounded, concave recess which will hold whatever decorative items you eventually choose to place into the finished table-centre. Abrade all surfaces down to 400 grit.

26 You should now have a flat, circular surface which is effectively a 30mm-wide ring (200mm outside diameter and 140mm inside diameter) but place a steel rule across it to ensure it is perfectly flat then make any adjustments. Mark a central circle (170mm diameter) to begin marking out the centres for the candlesticks.

27 Set a pair of dividers to 85mm (the radius of the central circle on the ring) and on the central circle, use the dividers to make six distinct, equally spaced marks, one for each of the six candlesticks. These will be the positions at which you can drill the 25mm sockets for the tenons on the candlesticks.

28 This is a good point at which you can apply aerosol lacquer to the workpieces. The base can be done on the lathe (with the lathe well-masked) and, for the candlesticks, use scrap wood pieces with 25mm holes in them as temporary bases.

Drilling the sockets

29 To drill the sockets for the candlesticks it is essential that your drill table is set up correctly. To confirm this, put a large twist drill (10mm or 12mm will suffice) into the chuck and then place a set-square against it such that the set-square extends out towards the front of the table. Repeat this with the set-square extending out to the side of the table and make any adjustments that you need to ensure that the drill bit is parallel to the set-square in each direction.

30 Set the workpiece in place such that any one of the six centre-marks is directly below the spur of your 25mm drill, clamp the workpiece then drill the hole to 27mm deep, this will accommodate the tenon on each candlestick, with a little allowance for excess adhesive. Repeat for the remaining holes and, if you are going to screw each candlestick into place, drill right down through the base with a drill of suitable size as a clearance hole for the screws, through the centre point of each of the six sockets.

31 Cut a piece of scrap timber such that it has a projection which fits into the central recess of the table centre, then mount the scrap and the workpiece as shown with a few pieces of soft paper between them, for reverse turning the underside to a finish.

32 With the lathe set at a suitably slow speed (around 100 to 200rpm will be plenty) refine the underside and abrade to 400 grit, then apply your chosen finish before gluing and screwing the candlesticks into place and gluing/ screwing the cups into the tops of them. ●



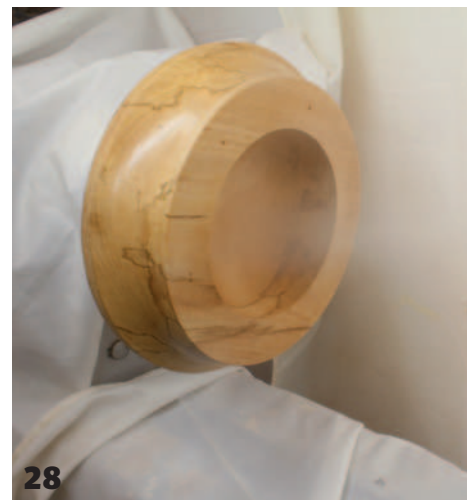
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“

*Design is a completely
immersive process.
My design/assembly
table is the focus
for this part of the
creative process*

”

Woodturning Steampunk

Guest editor Les Symonds enters the surreal world of Nick Simpson (aka Professor Bergenstrouser)



Many regular readers of *Woodturning* will have seen some of Nick Simpson's work as the basis of project pieces in previous months' issues, so may be familiar with the name. Here is the opportunity to get to know a little more about this fascinating person, relatively new to the world of woodturning.

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I first met Nick when he called in, as a tourist/customer, to my little shop and gallery in the market town of Bala in north Wales. Nick clearly showed a lot more than the passing interest in my work which many customers showed and we chatted for quite a while. Since then, I have followed Nick and admired his work from afar. While we both enjoy using fire and copper to embellish some of our work, our approach to our craft can be very different. While I work spontaneously and prefer to start and finish a piece in one sitting, so to speak, Nick plans meticulously and this is manifested in the attention to minute detail, which resulted in his winning 1st prize in the Amateur Turner category of the British Woodturner of the Year in 2019. I was fascinated to read the background to the man; I trust that you will be as well.

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You are a retired dermatologist, so when and how did you get involved with woodturning?

I had planned for an active retirement of cycling, horse riding and smallholding but was forced to stop work in 2007 because of debility following flu (what is now recognised in the new context as long Covid). During my slow recovery I looked for a hobby in which I could use the fine motor skills developed from skin surgery. Woodcarving and the traditional Northumbrian craft of stick dressing (crook making) seemed to fit the bill, so I bought a book and started carving animal heads. In 2011 I went to evening classes to learn to create stick handles from ram's horn and there I met Malcolm Howat who introduced me to the Northumbrian Woodturners Association (NWA) which meets at Blyth on the Northumbrian coast. Their warm welcome hooked me, but I was overawed by the members' high levels of skill. I owe a great thank you to the NWA for its teaching, support, friendship, and critique. There are too many individuals to mention but I must credit Chris Tait and the late Walter Vasey for the foundation of my ideas on critique and teaching woodturning.

I have been impressed by the kindness of professional woodturners. Their willingness to look at my pieces and then share and develop ideas has been powerful. Martin Pidgen has been a wonderful mentor and friend, his offer of a couple of hours in my workshop turned into an epic 12-hour session more than once.

The NWA held regular club competitions on specific subjects, and these did most to provoke my lateral-thinking approach to woodturned items as I shall explain later.

To what extent has woodturning dominated your retirement?

My approach to woodturning is all-consuming and I have to set aside an uninterrupted block of time. I find that the woodturning process is transcendental, and this has helped to build concentration and overcome much of my lingering 'brain fog' and original fatigue. In 2019 my wife and I moved from our smallholding in Northumberland to the Highlands of Scotland to be nearer to our family. We now live on a 20-acre croft with a one-acre garden, and these dominate most of the summer months, so winter is my peak turning time. Woodturning clubs have been very important in fostering the development of my craft and I am pleased to have been welcomed by the Highland Woodturners Club and I am on the committee as manager of the teaching and training programme.

How do you like to work? Is there a style that you favour?

I like to work with a predetermined plan on all projects, sometimes just outlining proportions but usually in greater detail. I stop the lathe frequently to examine grain patterns, bark inclusions and voids to make the most of these features. I may even re-mount several times a piece such as the 450mm monkey puzzle platter to find the plane of confluence of the branches. There is a zen aspect to woodturning, but I have no time for turners who claim to 'go with the flow' by allowing the piece of wood to determine the outcome – their result is frequently a huge pile of shavings on the floor and a rather small ugly bowl suitable for feeding the cat.

I prefer classical forms from ceramics and architecture as a sound base from which to extemporise and experiment. I have so many ideas that I rarely make more than three examples of anything – the first to test a design, the second to refine proportions and finish and then the third is the final item.

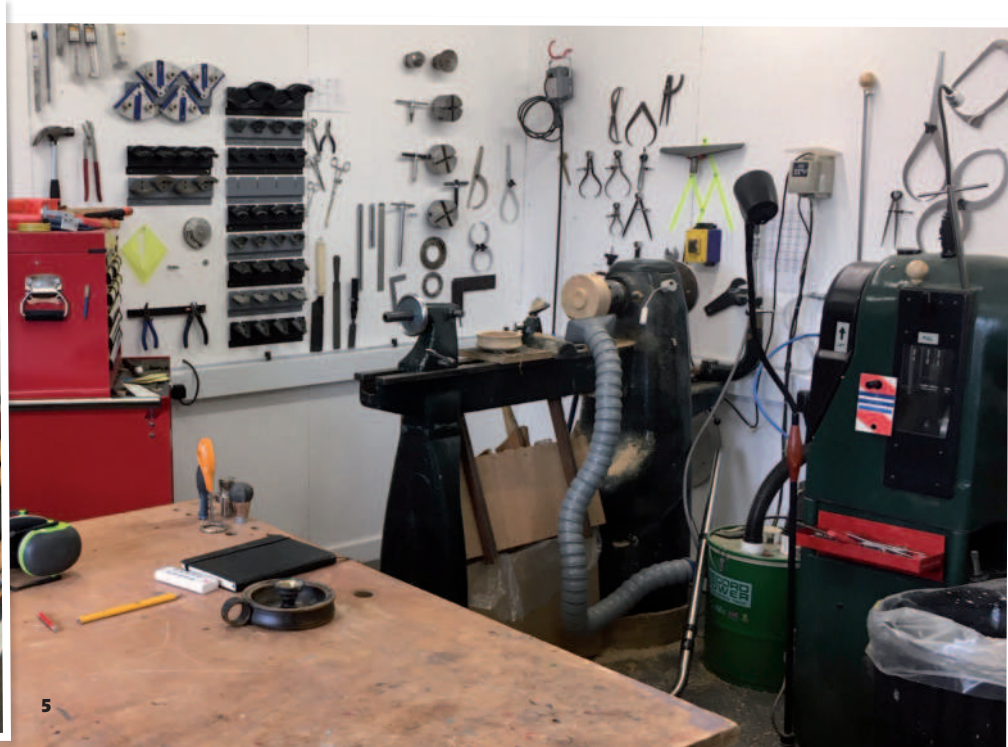
What are your favourite tools and why?

I have always been a collector of tools. In the '60s I owned lots of elderly cars and had to acquire sets of Whitworth, AF and metric spanners. Many of my turning tools and my lathes were similarly purchased second hand on the internet or at the NWA annual auction. I have fitted most of my gouges with adjustable handles, which allows me to change length and balance. I use secondary bevels on both deep and shallow fluted gouges of all sizes and grinds and this gives me flexibility on the inside of bowls and fine detail spindle work. My favourite non-standard tool is a 8.5mm convex-ground beading/parting tool which I copied from Martin Pidgen and use for detailed skew-type work on spindles.

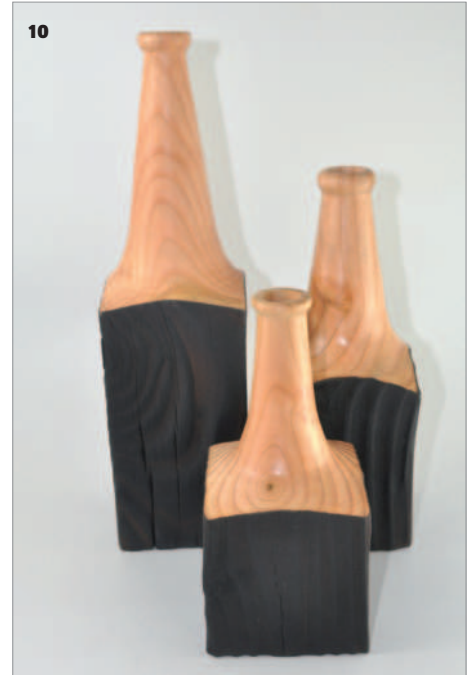
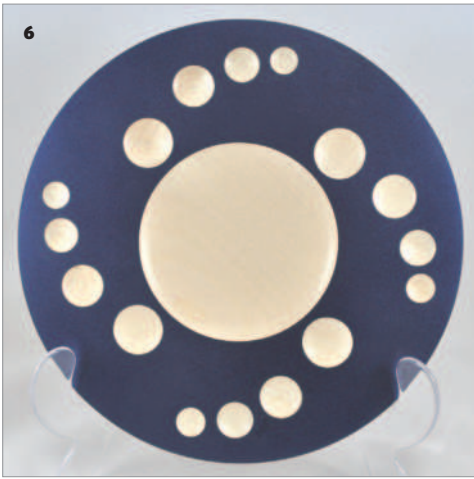
The only tools I do not use are freehand deep hollowing tools because of a shoulder injury and a set of captive ring tools because I've made three of those.

Describe your workshop – what is the set-up and how long have you been there?

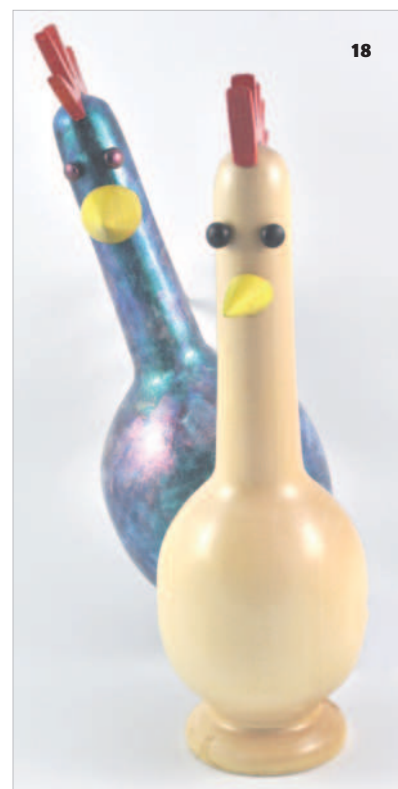
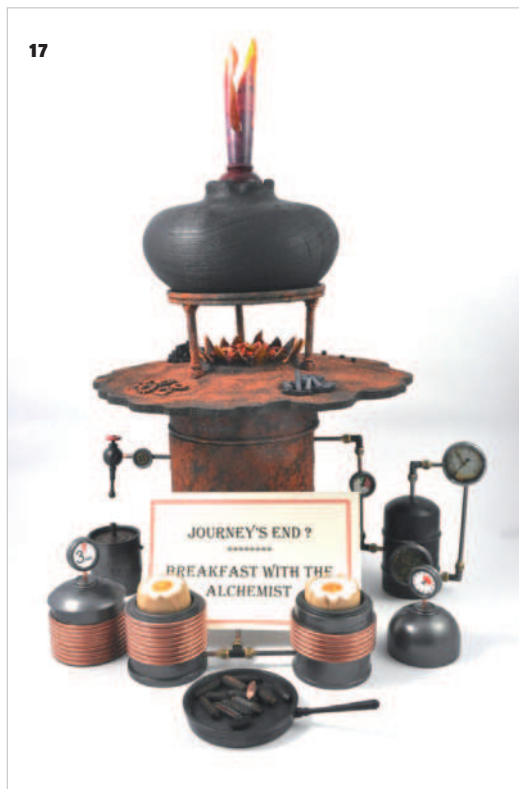
I created a new workshop in 2019. Our new property had an empty 9m sq metal shed with concrete fibre roof. This shed had to house my 1954 MG TF and sundry agricultural machines. I built a 4.5m square workshop with mezzanine on top for wood storage.



Previous page, **main image** In planning mode, and in character as Professor Bergenstrauser **1** A series of scorched and embellished flasks
2 Gone Over the Top **3** Nick's faux-antique treen items **4** Tool storage is well organised **5** Nick's well equipped workshop



6 250mm Archimedes Spiral platter **7** Steampunk chess King and Queen **8** 450mm Monkey Puzzle platter **9** Reflections of ... a work in pollarded wild cherry
10 Douglas fir bottles **11** Stick making **12** Douglas fir flask **13** Muffineers **14** Faux antique finish on a salt bowl **15** Firepit – the start of the Prof's adventures



16 The Max Brosi inspired Trimaginator **17** Breakfast with the Alchemist **18** The Chicken gate finials

The OSB walls contain 100mm insulation and there is electrical trunking with 40 sockets at waist height around the walls and a flexible spur to the worktable. My 1800 x 1200mm worktable is the pivotal point of the workshop and is next to the window with amazing views to the mountains. My Graduate and VB 36 lathes are along walls as are my planer/thicknesser, pillar drill and bandsaw, but the latter three are on casters. There is a further bench which hosts my flatbed sander and Sorby Proedge sharpening system. There are ex-kitchen cupboards on the wall for finishes and stains. All my turning tools and centres are stored in a two-tier moveable toolchest with silica gel sachets in every drawer to prevent rusting.

Dust extraction to a large Axminster vacuum situated outside the workshop in the large shed is by 100mm plastic ducting for the VB, planer/thicknesser and bandsaw. Dust extraction from the Graduate lathe is by 2.5in poseable Camvac hose and vented into the main shed to reduce noise. My compressor and sandblast cabinet are in the main shed just outside the workshop door.

How does your design process work?

Design is a completely immersive process. My design/assembly table is the focus for this part of the creative process. I usually start with a rough sketch and then draw detail on graph paper. The choice of wood depends on what I have in store but is influenced strongly by grain patterns. My test pieces are often in pine because it is cheap, and I can get offcuts.

Music plays an important part and must be relevant. For example, during my journey into Steampunk for the Alchemist series I would play Professor Elemental or Abney Park (often far too loud). I might don Prof Bergenstrauser's bowler to aid the thinking process.

Which woods do you most like working with and why?

I am very eclectic in my choice of woods and have worked with most sustainable and available species. I work a lot with wild cherry because it holds detail well and has a beautiful combination of colour and figure. The piece Reflections Of was made from two adjacent vertical slices through the crown of a previously pollarded wild cherry. North west Scotland is host to the remaining wych elm trees in UK, so this is another special favourite. I have recently turned a lot of Douglas fir to experiment with sandblasting and severe scorching.

Do you work with other materials and how do they compare?

I had a brief productive foray combining turning with willow work in 2018 in Northumberland but have not established links here yet.

What sort of finishes do you prefer and why?

I like my finished work to look and feel natural. I prefer matt or satin rather than gloss finishes.

The plastic feel of many synthetic finishes does not suit my output. I try to achieve an organic look and feel by using several coats of either cellulose or acrylic sanding sealer. My faux antique treen items need complex finishing regimes including distressing, fuming and patinating with waxes, as in issue *WT385*. I use acrylic paints and faux gold but only as embellishments.

What inspires you and where do you get your ideas from?

I am inspired by classical forms in woodturning, architecture, and ceramics.

I have found the stimulus of club competitions very rewarding in my search for different concepts to explore. But I rarely win because this attitude tends to produce 'off-the-wall' pieces such as Firepit, which I submitted as a lidded box with finial. This piece was the first in a series of pieces and tableaux which explored the Steampunk genre and in turn owes its origins to a meeting with Les Symonds who introduced me to severe scorching with copper wire embellishment.

I love a good story and am a fan of the *Boys Own*-type ripping yarns which I read in my childhood. I invented the character of Professor Bergenstrauser, Victorian/Edwardian romantic, inventor and part-time Steampunk engineer. This led to an illustrated series of adventures and exploits with the Prof. This story and the accompanying pieces called Breakfast with the Alchemist have been shown in this magazine (*WT352*). The Prof reappeared during my faux antique treen series. (*WT356*, *358* and *359*). The last hurrah in this Steampunk adventure was called Prof Bergenstrauser's Trimaginator (*WT354*) and was an adaptation of an idea from Irish woodturner Max Brosi. The final Steampunk creations were the 250mm King & Queen chess pieces which had hollow-form heads (to keep the centre of gravity low), sandblasted cloaks and cogwheel adornment.

I created the tableau *Gone Over the Top* in Trench Art style as an Armistice tribute in 2018. It is made entirely from turned wood and

was my entry to another club competition. The piece has until recently had permanent housing on the premises of Poppy Scotland in Inverness.

There is usually a back story to my creations; for example, I turned the chickens as gate finials for my son-in-law, but they have never left his sitting room.

Does the location of your workshop have any effects or influences on how you work?

Yes, how can you live in this part of the world at 820ft above sea level, surrounded by forests, mountains and glens and not be affected by it? A herd of wild red deer often graze our fields and pine martens, badgers and foxes live in our small wood. From the workshop window I can see golden eagles, red kites, buzzards, and the ubiquitous hooded crows. The view to the north and north west takes in Ben Wyvis and frequent stunning sunsets. My workshop is 100m from our house and this helps with the necessary isolation and creativity.

What is your favourite piece you have worked on and why?

This must be Breakfast with the Alchemist. This piece was the culmination of the Steampunk adventures of Prof Bergenstrauser. It was my entry to the British Woodturner of the Year (Amateur Category) in 2019 and won 1st prize. The whole piece developed organically over four months and shows a desolate post-industrial landscape with a crucible designed for alchemy but being used to fry sausages and boil eggs. The project was real fun and introduced me to severe scorching and new finishes such as faux-rust and metallic spray paints.

What is the most challenging piece you have worked on, and why?

In 2018 I was experimenting with the visual relationship between a spiral form and its background. The picture [6] shows a 250mm sycamore platter with a central bowl and four identical Archimedes spirals each defined by four mini-bowls against a blue spray-painted background. This required 17 very accurately positioned chucking points, some of which were so off centre that I had to take the bed bars off the VB 36 to accommodate the counterbalance arm.



What are your aspirations for the future?

I plan to work with more sandblasted and super-scorched (set-on-fire) pieces to develop a progression of shapes and forms. I am currently exploring the output of several ceramicists. Right now, I'm immersed in a book about the work of Lucie Rie, who produced wonderful organic forms in many types of clay and her concepts transfer well to woodturning.

I manage the teaching and training for the Highland Woodturners Club and look forward to developing a programme based on safety and the importance of form. A famous Northumbrian ceramicist alerted me to many woodturners' predilection for celebrating finish over form and that has become my mantra.

What do you do when you're not woodturning?

We work a 20-acre small croft, at about 820 ft above sea level in the most beautiful part of the UK. Our demesne includes a glen with burn and native trees, rough grazing with wildflower meadow and two hay fields. We keep horses and work about an acre of garden, which makes us just about self-sufficient in veg for a large part of the year. My other hobby is my beautiful red 1954 MG TF but we will only venture outside in dry weather.

<https://boglecraft.co.uk>

19 Wild red deer graze outside the workshop window **20** Nick's beloved 1954 MG TF, tucked away for a sunny day. The stairs lead to a mezzanine for wood storage



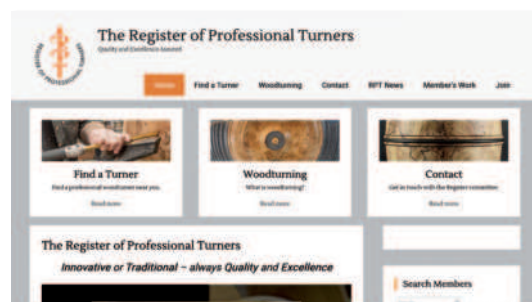
Rebranding the Register

Les Symonds discusses the new look for the Register of Professional Turners

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When I last wrote as guest editor, a dozen-or-so issues ago, I discussed my involvement with the Register and touched upon the fact that, as a member of a dynamic new committee, we were about to embark on a rebranding exercise. While our vision for the future of the Register is still developing apace, the first and most immediate sign of change has been our new logo and the launch of a new website. The logo aims to strike a note of gravitas through the use of graphics which reflect and suggest the skill of woodturning, while embracing the initials of the organisation.

Many UK-based turners may well recall seeing the RPT in past years at its trade stand at the UK's leading woodworking show in Harrogate. We will still have a presence there and at other prestigious venues, but if you manage to get there, or to the Woodturning Seminar held by the Association of Woodturners of Great Britain, you will hopefully notice a change in our attendance, with a professionally designed and constructed booth, and also through our emphasis on the RPT's professional approach to the craft.

In past years the RPT has placed much emphasis on attending events such as this, but we cannot escape the fact that there is a much wider audience out there, to which the Register could make representations and to which the output of its individual members could appeal. So, in future years our activities in the field of publicity will seek inroads not only into the world of interior design and to exhibitors and buyers of artistic and aesthetic work, but also into construction exhibitions where the work of our production turners could be highlighted.

Much of this work is aimed, understandably, at gaining new members for the Register and, in this aspect of the RPT's work, the whole process of application to join us and of our assessment of the applicant's skills and professional approach has been updated and streamlined. Clearly, issues associated with Covid-19 demanded that our former practice of visiting an applicant's workshop to conduct an assessment had to be changed and the use of internet-based interviews has proven to be very successful. The revised process is more efficient and certainly quicker, while providing the applicant with what we believe they will feel is a friendly, relaxed, but thorough process.

The foundations for a more prominent organisation are being securely laid as I write, some of the walls are slowly beginning to appear and the main structure of the newly branded Register of Professional Turners will become increasingly apparent as we head into the future.

www.registerofprofessionalturners.co.uk

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1 The new logo **2** Merchandising products and the new website **3** Artistic turning by Sandra Adams RPT
4 Production turning by Richard Findley RPT

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BE INSPIRED, BE CREATIVE

Kempston pot

Andy Coates once again decides to copy a copy of an original object
– Graham Taylor's reproduction of the Kempston Window Urn

The idea for this pot came after looking at the website of a potter friend, Graham Taylor. Graham is no ordinary potter, he is an experimental archaeologist and ancient pottery technology specialist, based in Rothbury, North Northumberland. He makes copies of ancient pottery for museums and for sale to the public, and wondrous pots they are too. He makes them, as far as possible, in the same way they would have been made originally, with tools he makes, and kilns based on original kilns.

Introduction

On the website is a copy of the Kempston pot. This pot is Saxon, 410-1066AD, and was discovered in Kempston in 1857, and now resides in the Bedford Museum. The pot is of a rare type known as a window urn, on account of the small piece of embedded glass in the base. The exact use of these vessels is uncertain, but they are beautiful objects.

It was the flutes that first caught my attention; I had just completed two articles on vessels with fluting, but this object has flutes that travel around a far more curved form, and begin at points and widen, eventually breaking a sharp edge at a larger diameter. It seemed a perfect object to attempt a wooden copy of.

Graham very kindly consented to me doing so and agreed to supply some images of his replica pot, so I was off again. A couple of things gave me pause for thought immediately: what could I use as the glass insert, how could I fit it, and how do I deal with the fluting? The matter of the glass was fairly easy to decide, and I ordered some green/blue cabochons, and would figure out how to fit them later. The fluting could be achieved with a fluting rig, or in the manner I previously used for the seed pots. Having considered these initial thoughts I set to making a maquette. It was at this point that the first problem came to light... and this issue needs to be addressed here.



Marking out the flutes

If you have a lathe that provides the facility to mark out 14 segments, you will have no problems. If your lathe, like many, only provides for settings of 12, 24, or 48, then you need to make an indexing attachment to enable marking out.

I should note here that, on the original pot, and I suspect the replica, the spacing of the 14 flutes was most probably eyeballed, and that was accurate enough for the needs and aesthetic of the time, but as turners we like accuracy, and a method of indexing is required. And this is where the problem resides.

I assumed, stupidly, that this would be a simple matter, achieved with a compass and rule, but oh, no. Apparently, it is 'impossible' to create what is known as a 14-gon, a 14-sided tetradecagon (from which you describe the 14 segments) using a compass and rule. I tried any number of methods, I dare not say how many, and none were satisfactory, resulting in a level of discrepancy that I found annoying. Then I discovered that you can construct one 'using neusis with use of the angle trisector'. After I got over losing the will to live, I continued in my search for another solution.

Having spent a weekend worrying about it, and trying to decide if I, therefore 'we', should just eyeball it, I had an idea. If I could work out the length of the circumference, then surely I could simply divide it by 14. Couldn't I? And, incidentally, the same problem exists if you go the degrees route... 25.7° is no easier to accurately mark out.

I scribed a circle 170mm diameter (large enough to serve as an indexing ring for this pot), and using the formula $C = 2 \pi r$ worked out the circumference length:

$$C = 2 \pi R \quad \dots \quad C = 2 \times 3.14 \times 70 \quad \dots \quad C = 439.82 \text{ mm}$$

A nice round number to work with! So the length of each segment edge would be: $C/14 = 31.42 \text{ mm}$

Another nice round number. And one I had to set the compass to. I marked the horizontal and verticals in the circle, and labelled



Reproduction of the Kempston Window Urn by Graham Taylor

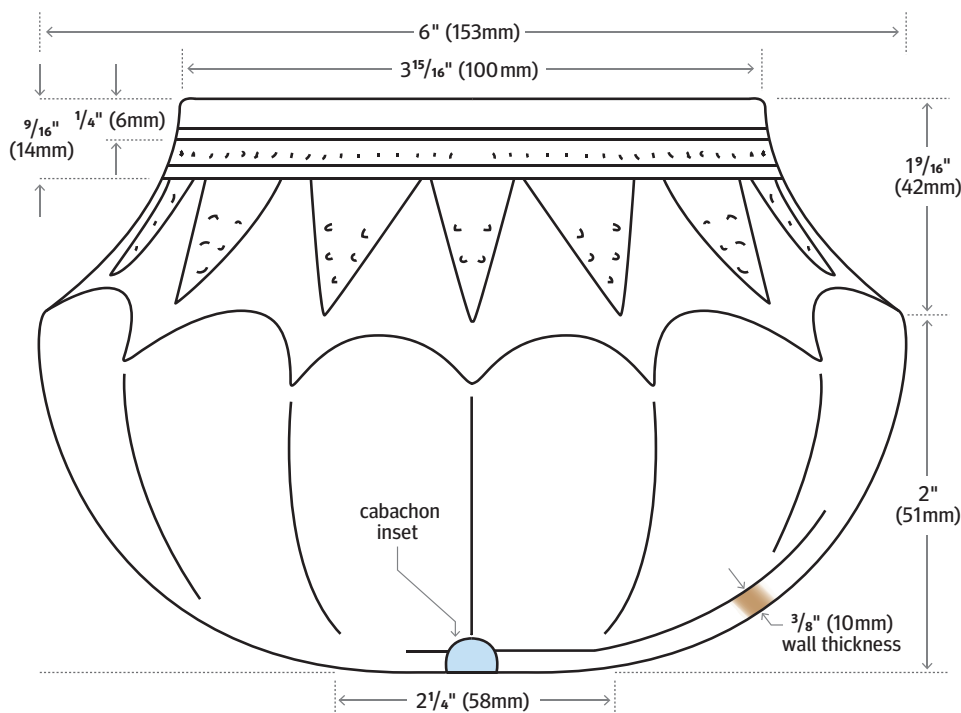
Plans & equipment

Tools & equipment

- PPE & RPE as appropriate
- 15mm bowl gouge
- 10mm spindle gouge
- 10mm parting and beading tool
- Crown deep hollowing system with handle extensions
- Figure-eight callipers
- Pyrography machine and ball and skew tips
- Rotary tool – Dremel, pendant or micromotor
- Assorted Kutzall and Saburrtooth burrs and 2in Buzzout wheel
- Corded electric drill and flex-shaft
- Shop-made abrading tools
- Carbon fume extractor and dust extractor

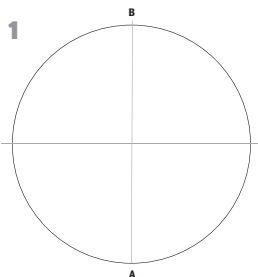
Materials

- Log of sycamore 6½in diameter by 4¾in long (165mm by 120mm)
- 1 x blue/green cabochon (size is not important)
- Acrylic inks – Burnt Umber and Ochre

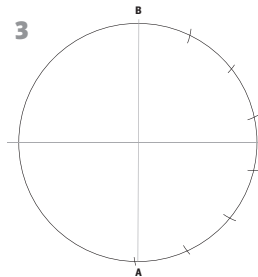
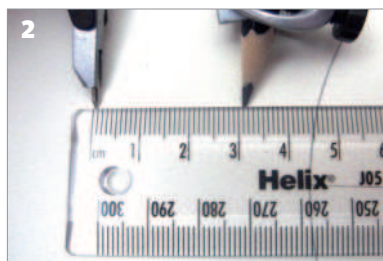


MAKING THE INDEXING RING

- 1 Scribe a circle 140mm diameter on to plain paper and, using a protractor, accurately divide it into four quadrants. Mark the bottom vertical A, and the top B.



- 2 Set your compass at as close to 31.4mm as you can.



- 3 Place the point of the compass on B and scribe a short arc through the circumference on the right-hand side. Move the point of the compass to the intersect created between circumference and the arc, and repeat.

Stop when you reach A. If it looks significantly out, try a minor adjustment to the compass setting and try again.

- 4 Once you are happy with the results, place the point of the compass on B again and work down the other side of the circle. You can see the degree of discrepancy where the two arcs meet at A. It is only a matter of a few degrees where the arcs intersect the circumference, and this can be averaged out between the segments to right and left.

- 5 Draw the lines to create the segments.

- Carefully cut the circle out and, using carpet glue, fix it to a piece of thin plywood (or plastic sheet).

- Mark the dead centre, scribe a circle the same size as the mandrel on your lathe and use a pillar drill to make a hole of this size.

- Using a bandsaw or fretsaw, cut out the plywood circle and scribe the segments on to it so they are permanent.

- The indexing ring can now be placed on the mandrel between the chuck and the bearing head.



PHOTOGRAPHS BY ANDY COATES

them as B at the top and A at the bottom. I then set the compass to as close to 31.4 I as I was able, and starting at A scribed arcs around the circumference to B, stepping each arc as it was made. And then repeated the process from A to B the other way around. But there was still a small discrepancy and the last arc slightly overshot its mark.

Irritating. I then tried using dividers, instead of a compass, 'walking' the dividers around the circumference in the manner which you will have seen mariners do on marine charts. The discrepancy was reduced to negligible. That will do. Please see box above for instructions on how to make an indexing ring.

◀ Making the pot

1 After taking some approximate measurements from the images I had I chose a log of sycamore to make the pot from. The log turned out to be slightly spalted, and soft in areas, but after roughing down to a 6in (152mm) cylinder I decided it would be fine; I did not want a fine finish on the surface, and I would be attempting to colour it to resemble pottery anyway.

2 Mark the cylinder at the headstock end to form a tenon, then mark $1\frac{1}{8}$ in (42mm) and 4in (100mm) from that mark. Turn tenons at both ends of the cylinder. At the headstock end make a second parting cut to a little over 4in diameter (100mm). This needs only be a narrow cut as it simply serves as a guide of the rim diameter for shaping towards.

3 You can remove some of the waste at the tailstock end at this stage, taking it down to well over the tenon size. The base will eventually be slightly less than the tenon size, at $2\frac{1}{8}$ in (54mm), and there needs to be a little extra material there to support the pot during hollowing out.

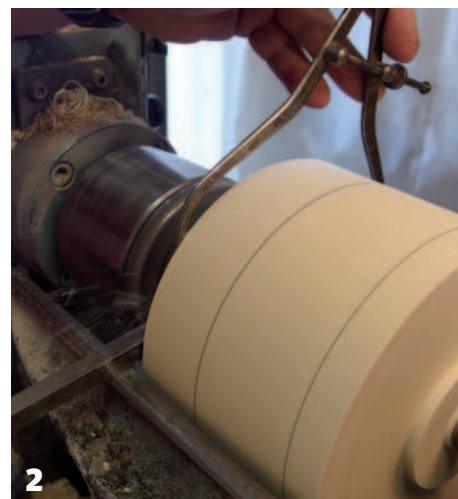
4 Begin shaping the pot from the $\frac{5}{8}$ in mark, down towards the base. A long-ground bowl gouge is perfect for the job, keeping the bevel running to lay the fibres flat after the cut. As this wood was ever so slightly spalted, a freshly ground tool was required to ensure the fibres did not pull too much.

5 Begin forming the shape from the waist of the pot to the rim, using the bowl gouge in the same way. Sweeping cuts, keeping the bevel rubbing. As this is an end-grain pot the cut is exactly as it would be for a half cove on a spindle. Work down until you just remove the flat created when you formed the 4in (100mm) guide cut earlier.

6 Fit the indexing ring, if you made one, and chuck and the pot can now be reversed and held on the tenon you formed at the tailstock end. I fit a flat table in the toolrest banjo for jobs like this, but if you do not have one, bring the toolrest parallel and set the height so that a pencil is dead on centreline. Using the table, or the left-hand end of the toolrest, set against a segment mark and scribe from the base of the pot to the larger diameter at the waist of the pot.

7 Increment the indexing ring and work around the pot, scribing carefully. You can see here that there remains a tiny discrepancy where the first mark was made. This can be averaged out by using the mid-point between the two scribed lines as the actual mark.

8 In order to provide a carving guide I prefer to mark over the fine pencil line with a permanent marker. Be sure to re-set the table or toolrest height to ensure that the extra thickness of the pen is accounted for. You can see here how much difference it would make if you did not. Draw over the pencil lines cleanly and accurately.



9 Next you need to draw in the scallops on the upper curved surface of the form. I found that a scrap of chuck waste 1½in (38mm) diameter worked perfectly. Scribe an arc between each pair of points. Now you should be able to visualise the flutes you will be forming.

10 I cut two pairs of V-cuts ¼in (6mm) and ⅝in (14mm) from the rim. These cuts do not need to be accurate, an eyeball cut will do. I did not have an accurate measurement so they are a guess at best. I scorched the cuts with Formica. Between these cuts and the scallops a triangular design was incised on the original, and replicated, pottery vessel, so mark a line from the point between each pair of scallops up to the V-cut line.

11 Draw in the triangles. I re-did these as they seemed too pointed to my eye. Just keep in mind that the triangles do not meet at the V-cut, but a small space remains between them. These features will be pyrographed in, but you could also carve them in, which in retrospect would have been a better option.

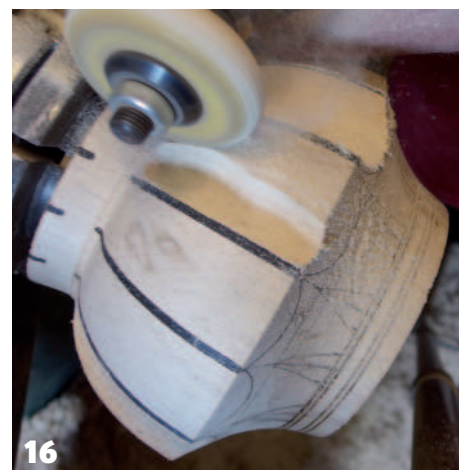
12 The scallops are quite deep, and a lot of material would need to be removed while maintaining a good profile to the flutes, so I decided against hand carving them and opted for using large ¼in shaft Saburtooth burs driven by a corded drill and flexi-shaft. Eye protection is an absolute must when using these tools, and at-source chip extraction is recommended.

13 I was not sure which burr would be the best to begin with, so tried a few shapes. The coarse ⅜in taper burr worked well, and despite being relatively easy to control and removing the waste quickly, I felt the surface was too damaged due to the light spalting making the wood soft.

14 Working with the chuck and pot held on a carving jig in the toolrest banjo made life much easier, and the flutes could be carved in two passes – one from the waist to the mid-point, and one from the mid-point to the base. I had to keep in mind that the flutes were not complete at this stage, and once the base shape was finally completed I would need to mark them again and complete the carving.

15 I decided to give the Saburtooth Buzzout wheel a try, and see how that compared to the taper. This is a scary looking tool, and I was slightly dubious about using it on this spalted wood, but it proved my concerns to be unfounded. The Buzzout proved very easy to control, and made a surprisingly clean cut on this difficult wood.

16 The most surprising thing was finding just how accurately you can cut with it. The Buzzout wheel was able to cut precisely to the marker lines, leaving a very clean surface. Its profile also made blending the first and second passes so much easier.



◀ **17** At the base of the incomplete flutes, the Buzzout proved to be too wide, so I changed to a fine flame burr to even out the shape at the base of the flutes. The carving jig really does pay dividends, as you are able to position the workpiece for best comfort and safety.

18 Once the flutes are done you can move on to hollowing out the pot. You will need to reverse the pot later to complete the shape at the base, so the inner rim is cut to $2\frac{15}{16}$ in (75mm) so that it can be mounted in the Axminster C jaws on an internal grip. Cut a recess to suit the jaws you have available.

19 The hollowing could be achieved with a long-ground bowl gouge on such a shallow pot, but use the hollowing tool of your preference. I chose a Roly Monro DHT for a cleaner cut on the soft wood. Use figure of eight callipers to ensure you do not cut through a flute wall. Wall thickness is nominally $\frac{3}{8}$ in (10mm), but this will depend on the depth you carved your flutes to. Internal depth is $3\frac{5}{8}$ in (92mm).

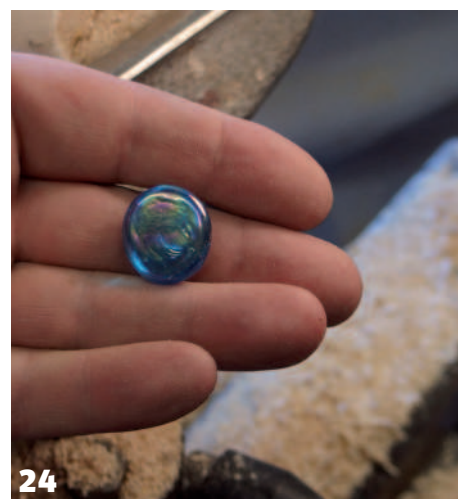
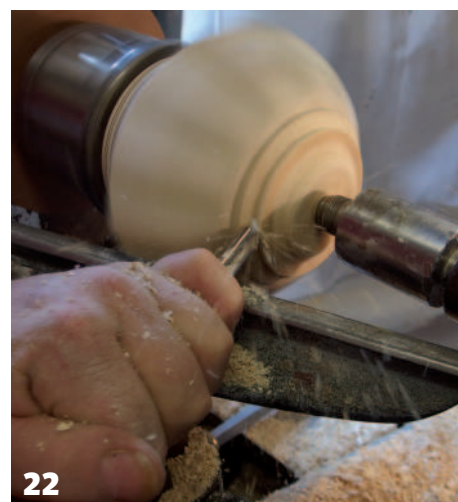
20 Once the hollowing is completed round over the outer rim with a spindle gouge. This is a gentle curve, and you can abrade it gently afterwards. Keep in mind that this is to imitate pottery, so a very fine finish is not prescribed.

21 The interior needs to be lightly abraded and a cylinder arbor works well. Just take away any dips and ridges and leave a surface suitable for taking colour and leaving a 'terracotta-like' surface.

22 The pot can now be reversed on to the chuck. The grip is expansion mode, so do not over tighten or you may split the pot. This is my least favourite method of holding work, and I only ever use it when no other method will do. Using a spindle gouge, begin to remove the tenon and then work backwards, completing the base shape, leaving a flat base of around $2\frac{1}{4}$ in (58mm) diameter. Be very careful not to cut into the already fluted area.

23 It will look like a dramatic change of shape at this stage, but remember that you will carve through most of this area shortly, and it will resolve nicely into a continuous curve. You can lightly abrade the area if needed. Remove the tailstock support and cut the nub away.

24 Rather than complete the fluting I decided to deal with the glass insert before moving on – it was a task with plenty of potential for ruining the whole project, so made sense to complete it before undertaking more work. I had chosen a cabochon as the glass insert, simply because the colouring seemed right and they are readily available very cheaply. The flat base of the cabochon would be set flush with the base of the pot.



HEALTH & SAFETY

Carving with burrs is a relatively safe occupation, but there are some commonsense precautions to take.

- Dust extraction is a must – fine dust is produced in large volumes and needs to be controlled as close to source as possible
- An out-of-control burr can tear into skin without any problem, so a heavy work glove or safety glove might be an advantage if you are unused to working with powered burrs
- Repetitive Strain Injury (RSI) is a very real issue, and you will feel the physical effects of using small handpieces for a prolonged period – take regular rest periods, stand up and move around, grab a coffee and relax
- If you are new to using burrs, take some time to try them out on scrap wood first and learn how they behave. You will reap the benefits when it comes to working on your carefully turned pot
- When using a pyrography machine it is important to use fume extraction. Fumes from burning wood are a potential health hazard, and they should be inhaled, especially for prolonged periods while working

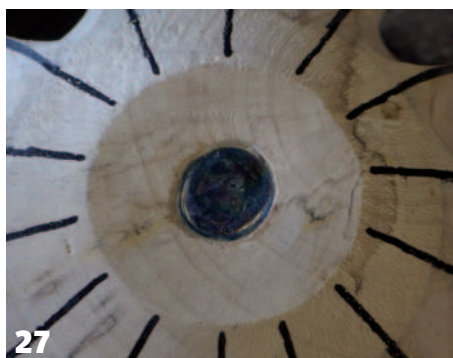
25 My idea was to scribe around the cabochon and carve out a recess using a small carbide burr. There are two important considerations here: first, the hole needs to be deep enough so that the cabochon lays flat to the base, and second, the hole needs to be wide enough to take the cabochon, but not so wide that it falls through. The base is around $\frac{3}{8}$ in (10mm) thick, so it should be fine.



26 Using a small cylinder burr, the marked recess is cut out and the cabochon tested for fit after each pass of the burr. It proved to be far less trouble than I had anticipated, and I could just as easily have done this as the last thing on the project.



27 The cabochon was set into the recess with CA glue. A little dust was pushed in around the edge and soaked with CA to act as a retainer. Check it is flush with the base before it cures. The flute marks are then continued to the base line, ready for completing the carving.

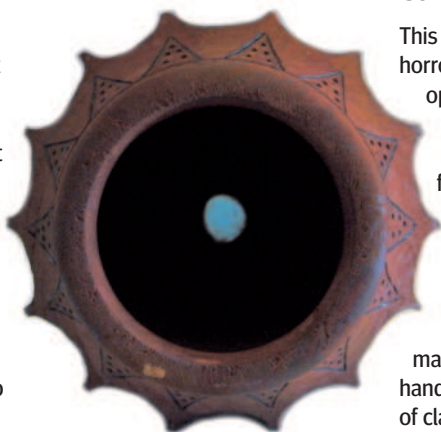


28 With the pot once again mounted on an expansion grip on the chuck, and the chuck mounted on the carving jig, a large flame burr was used to complete the flute shape. The flame burr is perfect for leaving a tapered end to the flute, just short of the base line. The flutes were lightly abraded to remove any heavy carving marks, but left with a slightly rough surface texture.



29 The triangular detailing, and the dots between the V-cuts, are all made using the pyrography machine. In retrospect I think these might have been better carved, and the dots formed with a ball burr cutter, but the final result was not actually bad. The flat areas between the flutes was lightly abraded to a rounded shape, removing the ink marks at the same time.

30 With the pyrography completed the pot was ready for colouring. The surfaces were all fine for applying colour, and required no further work. I had looked at all the different colour mediums I had to choose from and decided that I would make up some water-based stain from pigment. I chose Burnt Sienna and Ochre, thinking they would give a terracotta-like look. The colouring more represents the original object than the reproduction. This was simply painted on and allowed to dry before using the ochre to slightly highlight the high spots and edges.



Conclusions

This was actually quite a nice project, and ignoring the horrors of geometry, one I enjoyed making. There are myriad options for adapting this kind of process to other objects, and plenty of options for achieving the flutes even if you do not have the large burrs. Pyrographing the triangular features and the dots between the V-cuts was the wrong choice; I was unhappy with the look of it afterwards, and so backfilled the pyrographed areas with an acrylic medium tinted with the burnt sienna pigment. If I were to make another I would carve the triangles and make the dots with a ball burr. What is particularly pleasing is making a copy (of a copy) of an object that was made my hand over 1,000 years ago... even if the original was made of clay. Graham's is better, but this was fun. ●

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Grain direction

Pat Carroll discusses grain direction for beginners

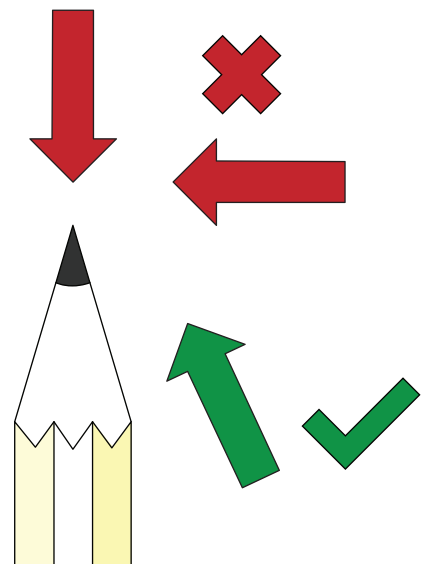


PHOTOGRAPH BY PAT CARROLL

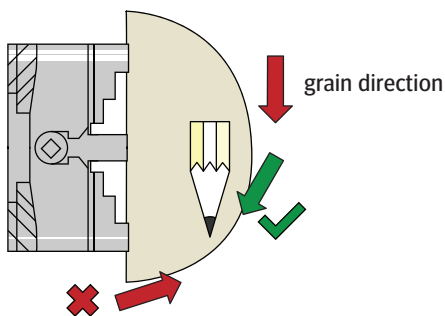
Introduction

Over the years, one of the things I have noticed beginners sometimes struggle with is grain direction in the workpiece. This then leads to the issue of cutting direction to achieve clean cuts and minimise tear-out. This is a general guide on cutting direction. If we had perfectly straight-grained wood for all our woodturning things may be simpler, but the diversity and uniqueness of every piece of wood is part of the beauty of making each piece special. A technique I use when demonstrating and teaching to explain this is sharpening a pencil. The diagrams will show how this is relative to our cuts. Please note that this is a basic guide – as we know, there are exceptions to every rule in woodturning. This explanation is aimed at the use of traditional woodturning gouges.

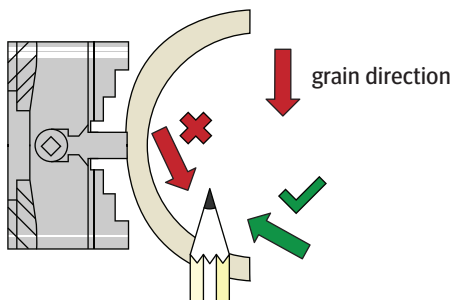
1 Sharpening a pencil is usually done from the solid portion outwards. This represents cutting in line with the grain. So, if we try sharpening a pencil in a different direction of cut, breakout will occur. These graphics aim to explain cutting direction to achieve the best results.



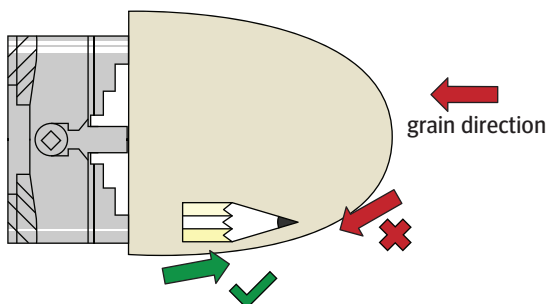
2 Working on the outside of a bowl the recommended cut on a piece with side-grain orientation is to cut from the smallest diameter to the largest, or from the foot to the rim. A lot of beginners tend to cut from the largest diameter to the smallest, rim to foot. Unseasoned wood and sharp tools may be forgiving with this cut, but on seasoned dry wood the unsupported fibres tend to tear out even with bevel support. If we look at the pencil representing grain direction, this indicates the recommended direction of cut.



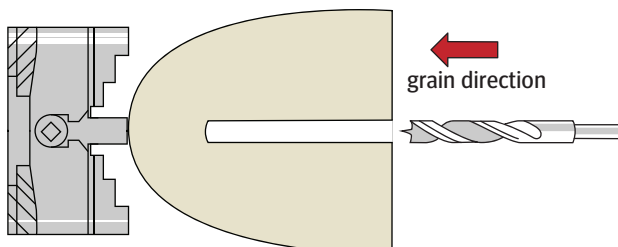
3 Working on the inside of a bowl with side-grain orientation, the cut generally works from the rim towards the centre due to the access of the tool.



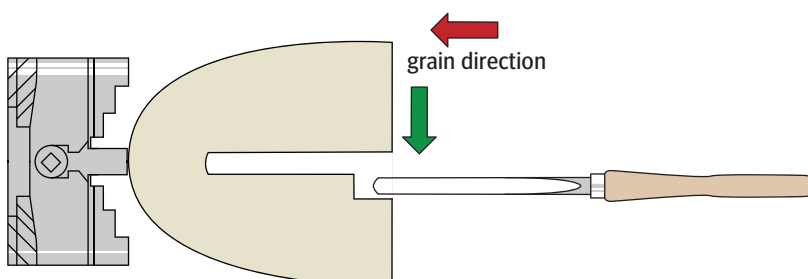
4 The grain running parallel with the bed ways is known as end-grain orientation. As displayed in the diagram, the recommended cut on the exterior of end-grain orientation is from the largest diameter to the smallest, or rim to foot.



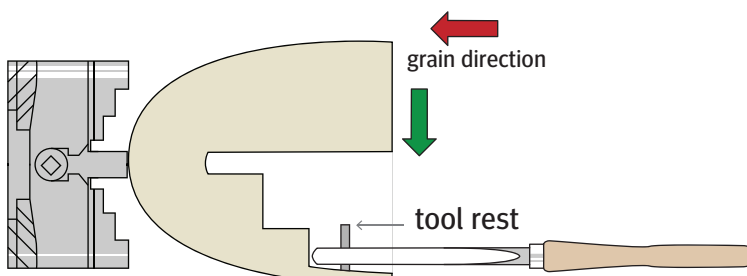
5 Working on the centre of end-grain orientation, it is very useful to drill a hole to the required depth.



6 With the hole drilled, a good technique to use is the tip of a gouge, flute slightly open, working from the centre outwards, then refining the side wall of the piece with the lower wing of the tool. This technique creates shavings which indicate a cleaner cut. Working from the rim to the centre on end grain usually creates dust and may not be as clean a finished surface.



7 This technique will work great on shallow vessels or where the tool rest can be inserted to support the gouge.



Little dipper

A honey collector for Kevin Alviti is all about portion control for his little people

During that first lockdown, while work projects were a little quiet, I decided to tick off an item I'd always wanted to make – a beehive. I have a friend who keeps bees and often I will go visit, don a bee suit, help him out and try not to get stung. I'd love to keep bees myself but I know I don't currently have enough time to give them the attention they deserve. My friend suggested that if I made him a beehive, one of a specific type he wanted to try, then he would share with me the honey and wax. The hive was a Warre hive, also known as the people's hive. It's a simple design, made to be close to the bee's natural conditions and to be built economically by anyone with a few tools.

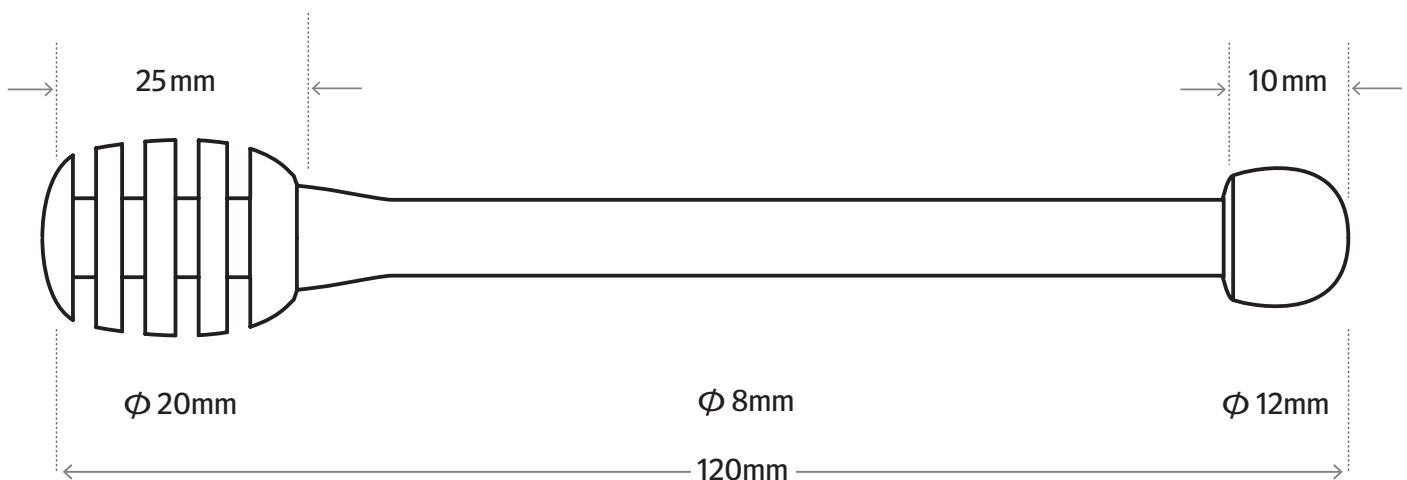
Since receiving some of the honey, one thing I hadn't banked on was how much we could use. In my defence, until now, I'd never had a six-year-old lad who can, at best, be described as 'a bottomless pit'. He can comfortably eat more than his older siblings and grandparents, and I've no doubt he'll be overtaking me soon. Then again, the high-octane life of a six-year-old involves running around with his friends, capturing bugs and playing Lego, so he needs a lot of fuel.

There was a particular morning when I watched him load a whole tablespoon of honey, which then slipped, quite innocently, in one dollop on to the middle of his toast. Without even a glance to me, he went back for a second spoonful and I decided there and then that maybe a honey dipper would be a good thing to make. He could then drizzle a light coating of honey over his toast rather than getting through a quarter of a jar at a single sitting. Well, that was the plan anyway.

It also makes a great between-centres project, is ideal to sell at craft shows or to make as a demonstration, and a great use of wood from the scrap pile.



Plans & equipment



Tools & equipment

- PPE & RPE as appropriate
- Lathe
- Spindle roughing gouge
- Skew chisel
- Thin parting tool
- Spindle gouge
- Sandpaper

Materials

Pick a piece of wood that is free of knots and straight grained. I chose some sycamore for this as it is food-safe and takes detail really well. I used a piece that was 20mm square and 150mm long. Of course, you can make a bigger dipper to hold more honey – this one will only drizzle a small amount.

The making

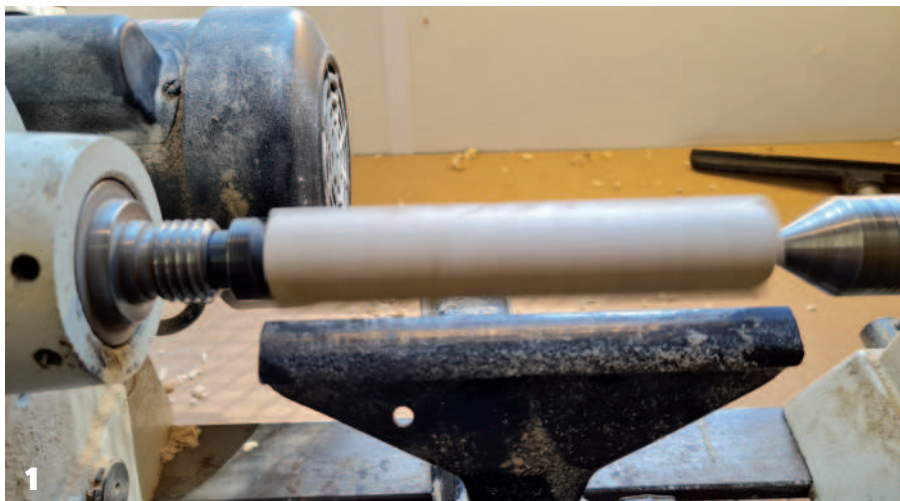
1 Dimension the blank to size, mark the centre on either end and mount on the lathe. For this project, I used my four-prong drive centre and a standard rotating tailstock drive. I also changed to my small toolrest so I could get close to the work without the tailstock getting in the way.

2 Check the workpiece can rotate freely, then rough down to a cylinder using a spindle roughing gouge. Mark out the low and high points from the plans.

3 With the points all marked, set a gauge to the correct measurement. Use a strong one-handed grip on a narrow parting tool to reduce the diameter of the wood to just over the correct width, holding a sizing gauge in the other hand behind. As it slips over you know you've reached the right size. Make sure your gauge is thinner than your parting tool here.

4 Here you can now reduce down the stem first if you prefer. I decided to reduce and shape the end of the dipper into the lozenge shape I had chosen. Use a small spindle gouge to shape it, reducing some wood on the handle side and waste side first to give yourself room to work. Concentrate on keeping the cutting edge of the tool supported to prevent it from catching.

5 Reduce the stem down with a spindle roughing gouge, then make some planing cuts with a skew chisel. I found it necessary to support the workpiece from behind with one hand while making light cuts with the other to prevent any chatter marks as the workpiece is so thin.



Top tip

Thin parting tool

One tool I seem to reach for again and again is this thin parting tool. It's obviously great when I've been a bit tight with the amount of wood I've allowed myself. But it's also great for grain matching when turning boxes and lids as not so much wood is removed. With the thin tool being so deep to make it strong, make sure you allow yourself enough room on larger projects, taking a couple of passes to make it slightly wider so the large metal surface doesn't bind with the wood.

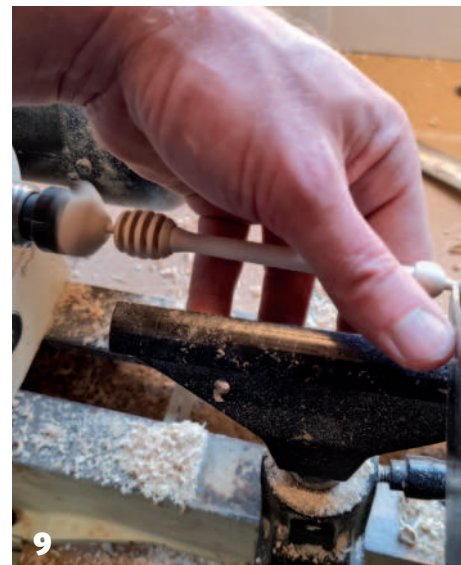


6 For the end of the dipper, I made a simple rounded shape that stepped down to the handle. Use a small spindle gouge again here to shape it, removing some wood from the waste end to make cutting it easier.

With the basic shape now formed, give it a light sanding, remembering to stop the lathe between grits and sand in the direction of the wood. Work up through the grits to about 320.

7 Take the narrow parting tool and reduce cut slots into the end of the dipper, where the honey will sit. The bigger you make the slots the more honey it will hold and the quicker it will come off.

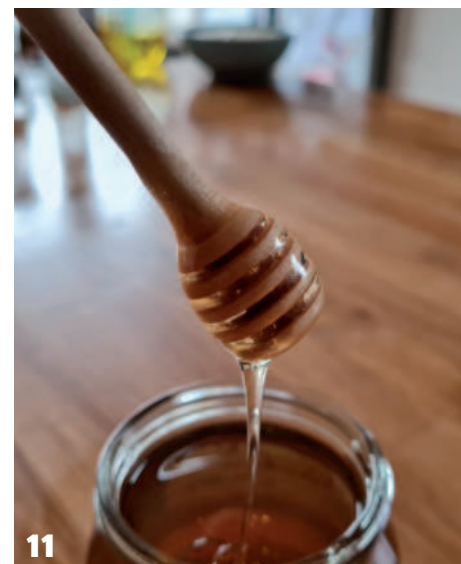
I spaced mine out by eye, using the thickness of the tool as a gauge with a hit-and-miss pattern. I reduced it down to roughly the stem thickness, but not using a gauge here, just by looking down vertically and seeing when it lines up.



8 Sand between the ridges you've just cut. Make sure there are no rough edges or wispy bits.

9 Part from the lathe. I used the narrow parting tool in one hand and caught the dipper in the other. Don't do this cut too near to the workpiece as it can sometimes pull out the end grain. Then, using a bench hook and tenon saw, cut the stubs off and sand them to the same finish as the rest of the piece.

10 It's always difficult to know what finish to use for an item. As this needs to be food safe I used some pure tung oil, making sure I got right into all the notches. I built up a couple of layers and then made sure it was completely dry before using it.



11 Get dipping. ●

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Blackwood and maple box

Andrew Potocnik uses a halving technique for this stylish creation

Turning two identical components requires a fair bit of skill, very careful measurements and maybe some well-prepared templates. However, if you turn a disc and split it in half, you'll end up with two identical parts. The process is simple, and this is how this project is made. I'm not the first person who has used this technique, but here's my take on making a box using this process.

I've long admired this technique and have used it to create some simple projects, but with a couple of more complex ideas in mind, it took me a while to work out how to bring them to fruition. Previously I cut a fine groove into the surfaces that were to meet and inserted a sliver of veneer to ensure the two halves met perfectly when glued. This led me to realise that by widening the veneer, I could increase the volume of the box.

Cutting the form in two introduces another aspect, exposing the cross-section or profile of the shape. This will require you to imagine what will be seen once the form is cut apart. Indiscriminately uneven wall thickness can ruin a piece, but used creatively, it can add a flourish of visual interest to what could otherwise be uniformly even walls.

My foray into this technique provides a wonderful example of how a concept shows great potential in the mind's eye, but when bringing it to fruition, you realise the technicalities will not allow the idea to work. After some reflection, I discovered that I had to reverse the design for it to work – another lesson learnt and added to the armoury of experience and knowledge.



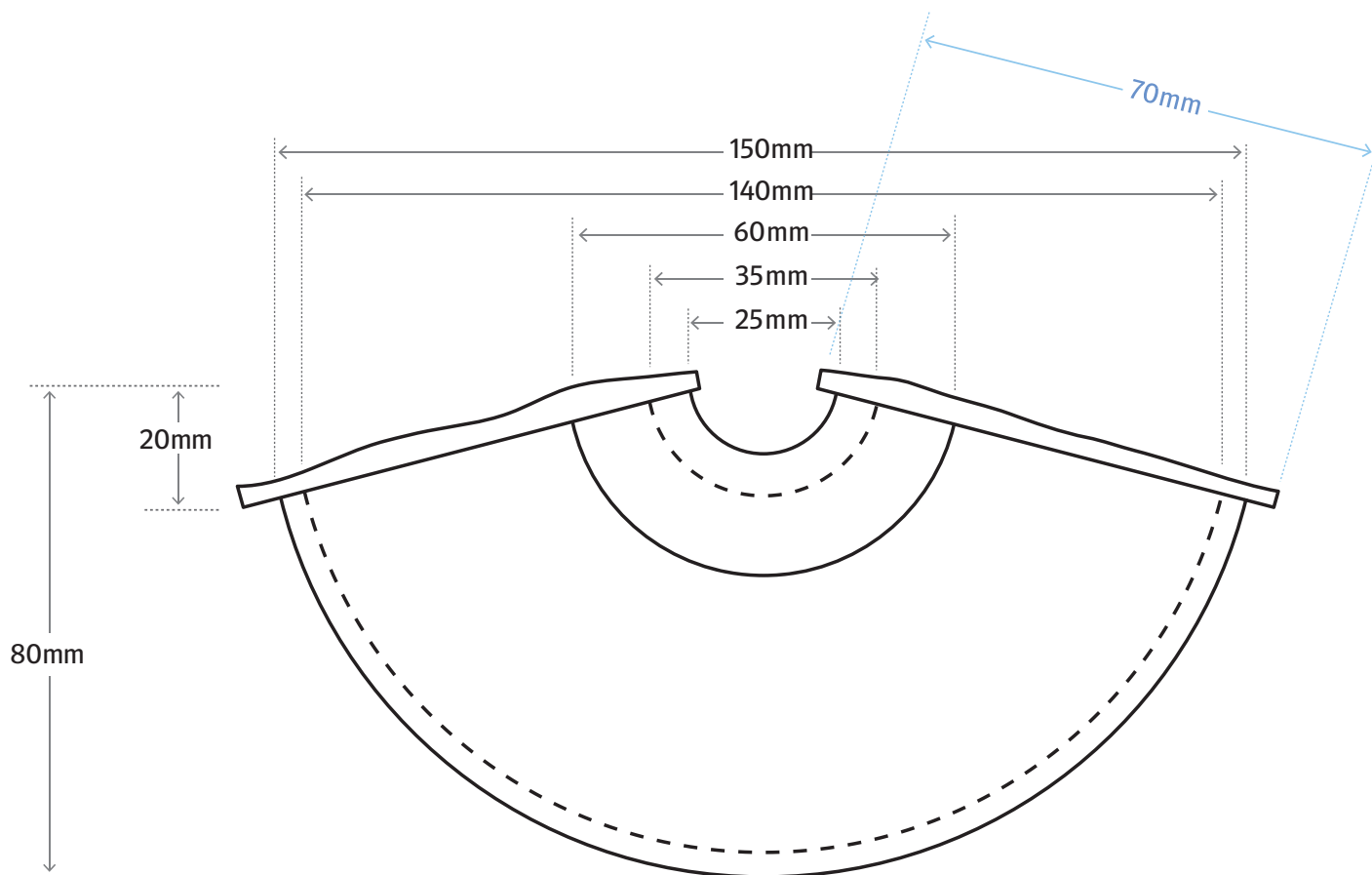
PHOTOGRAPHS BY ANDREW POTOCNIK

Plans & equipment

Tools & equipment

- PPE & RPE as appropriate
- $\frac{3}{8}$ in bowl gouge
- $\frac{3}{8}$ in fingernail spindle gouge
- Homemade parting tool

- Flat curved scraper
- 19mm fingernail-shaped scraper
- 12mm fingernail-shaped scraper
- Vernier callipers
- Heat-sensitive glue gun



The making

1 Rather than diving straight into this piece, I began with a trial made of two scraps of wood glued edge to edge, which was attached to a carrier using heat-sensitive glue. Although you can start with a large disc which is later cut in half diametrically, you can make use of narrow pieces of wood, as I have here. Likewise, if you only have thin boards available, an insert added between the two halves will enlarge the box. I used laminated veneer; however the insert could be made from a turned sleeve made of staves, again allowing the use of small pieces of wood. This opens the opportunity to add shape to what will be the profile of the box, but you'll need to be very accurate in ensuring the edge matches the groove it will fit into.



◀ **2** To simplify the process I didn't add veneer between the two halves, especially as this was just a trial and I had planned to cut away some of the wood from the middle. This is where I realised the idea wouldn't work – even though the shape was okay, it wasn't what I had intended.

3 After a while, I realised I needed to cut away outer parts of the box, so another trial piece was made to test my theory. The key point of the design was to retain the central sleeve, but to do so with the two sides sloping in, I would need to make two full identical discs, which defeats the purpose of this project. Therefore, the outer sections would slope down, and the idea that looked good on paper will have to wait for another day.

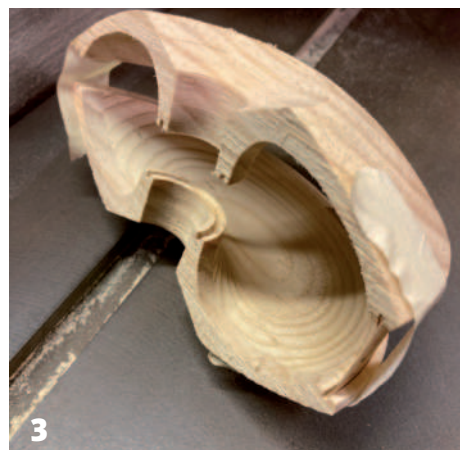
4 Confident that the trials had fulfilled their purpose, I began work on the proper piece. There are a number of ways to mount your timber to the lathe. On this occasion I pressed the disc of blackwood up against the jaws of a scroll chuck, holding it in place with the tailstock and live centre so a rebate could be cut for remounting.

5 Reversed and held in place with the jaws fitted into the rebate and held in expansion mode, the disc was rough shaped with the tailstock kept in place as long as possible to provide maximum support. It is best to err on the side of safety, no matter how experienced you are, rather than becoming complacent and getting a catch and the wood coming off the lathe.

6 With the bulk of the face turned, the edge was cut back on an angle and excess material removed from the back of the disc. By viewing the shape side on, I could begin to imagine the profile I'd see once the completed form was cut in half. Unfortunately, I did waste wood; however, if I'd used the full thickness of the blank (50mm), the resulting form would have been too wide.

7 The tailstock was moved away, the centre section shaped with a flat curved scraper, and a hole turned right through the disc with a fingernail-shaped spindle gouge. Again, I was thinking of the profile that would be exposed once the disc was cut in half. Once I was satisfied with the shape and proportions. I sanded the face, hole and edge through to 320 grit.

8 Next, a carrier was turned from some scrap pine held in the scroll chuck. The tenon fits into the hole and the domed section shaped to match the blackwood form so temporary adhesive could be applied for extra support. I had a choice of using double-sided tape but opted for heat-sensitive glue. I allowed the glue to heat enough that it was runny, then warmed the two surfaces to be bonded with a heat gun, applied dabs of glue, quickly pushed the blackwood into place and pressed it firmly on to the carrier. To separate the two later, apply some methylated spirit (also known as denatured alcohol) and the glue will release.



9 Provided the glue was hot enough and the two pieces pressed together correctly, the form should run truly and you can begin to hollow its interior. I removed the bulk of material with a $\frac{3}{8}$ in deep fluted bowl gouge, then refined the shape with a fingernail-shaped scraper. As the wood thinned, I rested the heel of my left hand on the toolrest and lightly supported the back of the disc with my fingers to reduce any vibration and prevent a catch.

10 Two grooves were made with a homemade parting tool, leaving a groove of about 2mm, one at the outer edge of the rim, the other in the inner rim. These grooves will house the laminated veneer sections that were to come. I then completed hollowing, curving the edges on either side of each groove to provide extra visual impact once the form was cut and the profile exposed.

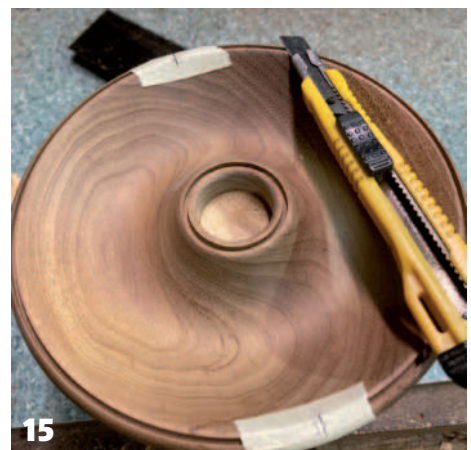
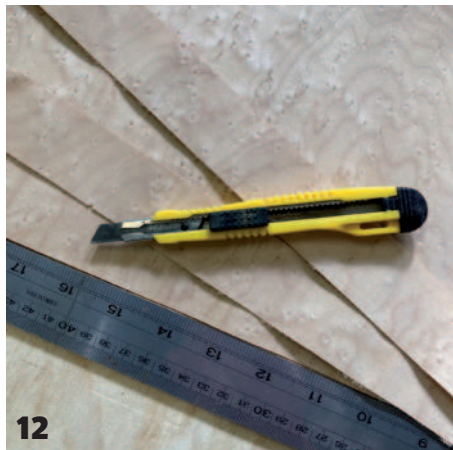
11 The interior surface was sanded through to 320 grit and rounded right up to the edge of both grooves. If I was to glue these surfaces without incorporating veneer, the two mating surfaces would need to be perfectly flat; however, in this case, I wanted a gentle flow in the exposed form.

12 Four strips of veneer were cut with a sharp knife and steel straight-edge ruler, cutting so grain ran across each strip, that way they will bend with ease. The only veneer I had in stock that was wide enough was some bird's eye maple which goes well with the colour of blackwood.

13 To laminate the veneer I needed a former with a circumference that matched the outer groove, so I laminated three pieces of plywood which became a little wider than the veneer strips. Once dry it was cut to a circle, mounted on the lathe and trimmed to the correct diameter. Vernier callipers were used to measure the disc, while a square was used to ensure the face and edges were at right angles to each other. If not, the resulting lamination would taper and not fit into the turned grooves.

14 A thin coat of PVA glue was applied to the veneer strips, which were then bent around the former. A strip of thick plastic was placed around the outside, followed by as many rubber bands as I could fit, covering the whole surface of the veneer. The plastic was used to flatten the veneer as much as possible. Alternatively, a band of metal could be used along with clamp; however, this project was too small to go to that extent. The assembly was left to dry overnight in a warm space before the rubber bands were removed and both faces sanded. I needed to be very careful as the cross-grain band was quite brittle, especially when sanding the edges flat on a disc sander.

15 Before cutting the disc in half, two small pieces of masking tape were applied, guide lines marked and two lines scored with a sharp knife to begin the saw cut.



◀ **16** To cut the disc in half I opted for my Japanese pull cut saw, due to its narrow saw kerf and minimal grain tear-out. I kept the disc attached to the carrier so it was easy to hold and the cut couldn't go astray.

17 Once cut, both halves were removed from the carrier and could now be checked to see how the profile looks when placed face to face. Keep in mind, the overall look will change once the veneer inserts are fitted.

18 I found that a piece of copper pipe almost matched the diameter of the inner groove, so I laminated three pieces of veneer in the same way as before. Rather than use four layers, which resulted in a tight fit, one layer less was still thick enough to fill the groove but just loose enough to slide into place. You can see marks on the copper pipe where I sawed through the dry sleeve to reduce the width to size.

19 Masking tape was applied so I could draw guide lines and saw away a wedge of the form, again using the pull saw. Fabric was placed on the bench top so I didn't damage the sanded surfaces of the box.

20 The newly cut surfaces were sanded flat to the marked lines on a disc sander. Many years ago I made a 400mm diameter sanding disc and table that fits my lathe, which worked perfectly for this part of the process.

21 Rough sander marks were sanded out using a sanding board fitted with 120 grit sand paper, followed by another that had 320 grit, ensuring both surfaces were flat and even from the outer edge to the inner rim of the form.

22 To make a pair of lids, I cut a piece of highly figured maple in half and attached the flat sanded surface to a carrier using double-sided tape. Although the tape provides excellent grip, I used the tailstock and live centre to give extra support, especially as the wood was mounted slightly off centre. The over-sized carrier was used so that the four corners were enclosed within the outer edges and not spinning in free space.

23 An undulating surface was turned to highlight the figured grain; however, I didn't want the two lids to be identical, so the undulations were different but the same thickness. Each was sanded through to 320 grit.

24 The profile of the box was traced on to each lid, excess material sawn away and the top surface covered with masking tape to protect it from the metal table of my belt sander. Both lids were sanded to about 2mm outside the marked lines in preparation to their fitting.



25 I decided to use pins to hold the lids in place, so four holes were marked in the thickest parts of the box and a 1mm hole drilled in each spot. A matching diameter brad was fitted into each hole and snipped so that about 3-4mm protruded from the hole.

26 Each lid was placed in position and pressed on to the two brads which marked the spot where I needed to drill matching holes. I didn't space the holes identically for each lid because I wanted each to be dedicated to its own side of the box.

27 Two millimetre holes were drilled into both lids (and those in the box were also enlarged to 2mm) using the drill press. A small piece of masking tape attached to the drill bit enabled all holes to be drilled to identical depths.

28 Pins of about 12mm length were cut from stainless steel bicycle spokes using wire cutters. One end of each pin was filed flat and a slight chamfer added to the same end before being pushed into the holes. Although the fit was snug, a small amount of cyanoacrylate glue was applied inside the hole to ensure the pins would not pull out.

29 Black acrylic paint was added to the top surfaces of the box to emphasise the shape and to block the difference in colour between the blackwood and maple. I used my fingertip to reduce the chance of paint being spread to the sides of the wood.

30 A fine pencil line gave me a guideline to sand the lid's perimeter down to, after which I hand sanded edges of the two lids and then added a wipe on, wipe off finish and the project was complete.

Although this was my first major trip down this method of production, I can see potential for many more outcomes. Likewise, I'm certain you'll see ways of creating wonderful new items exploring this quite simple method of turning. ●





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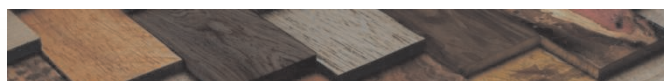
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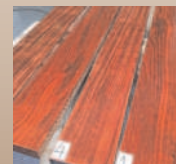


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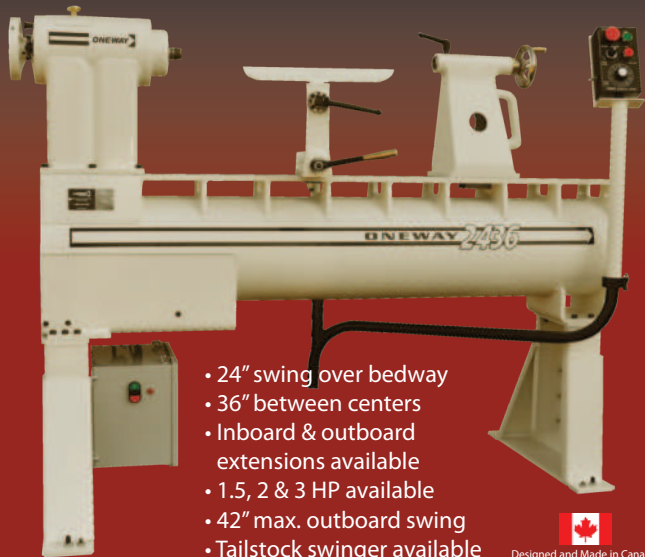
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Finial box with natural edge

John Hawkswell turns a yew log into an attractive footed, finial box

My woodturning club has regular sales of wood and I like to keep an eye open for interesting native timbers. When I spied a yew log with a good mixture of heart and sapwood and with the bark apparently intact, I knew there had to be a natural edge vessel lurking inside just waiting to be released.



The design idea

The starting point was a design that preserved some of the bark, although this is normally the first thing removed when working on a blank. This is a pity because it can add interest and character to the project. Having decided to keep some of the bark, the dimensions of the vessel more or less determined themselves. The shape of the foot and finial needed a bit of head-scratching before I arrived at a design I thought was right.

The ogee-shaped foot is sufficiently deep to reveal the curve of the bottom of the body but does not try to dominate the overall design. If you look at the photo you will see that the shape in the foot is actually a scaled-down version of the bell-shaped lid.

I tried several finial designs before selecting the one used here. I know at least one woodturner who keeps a box of different designs ready for any occasion and selects the most promising one. What a good idea if you like to try out different designs before you start turning.

In selecting a piece of yew for the finial I was after a good colour match with the rest of the vessel. Alternatively, an ebonised finial would have been a good choice since the retained bark already introduces a darker colour.

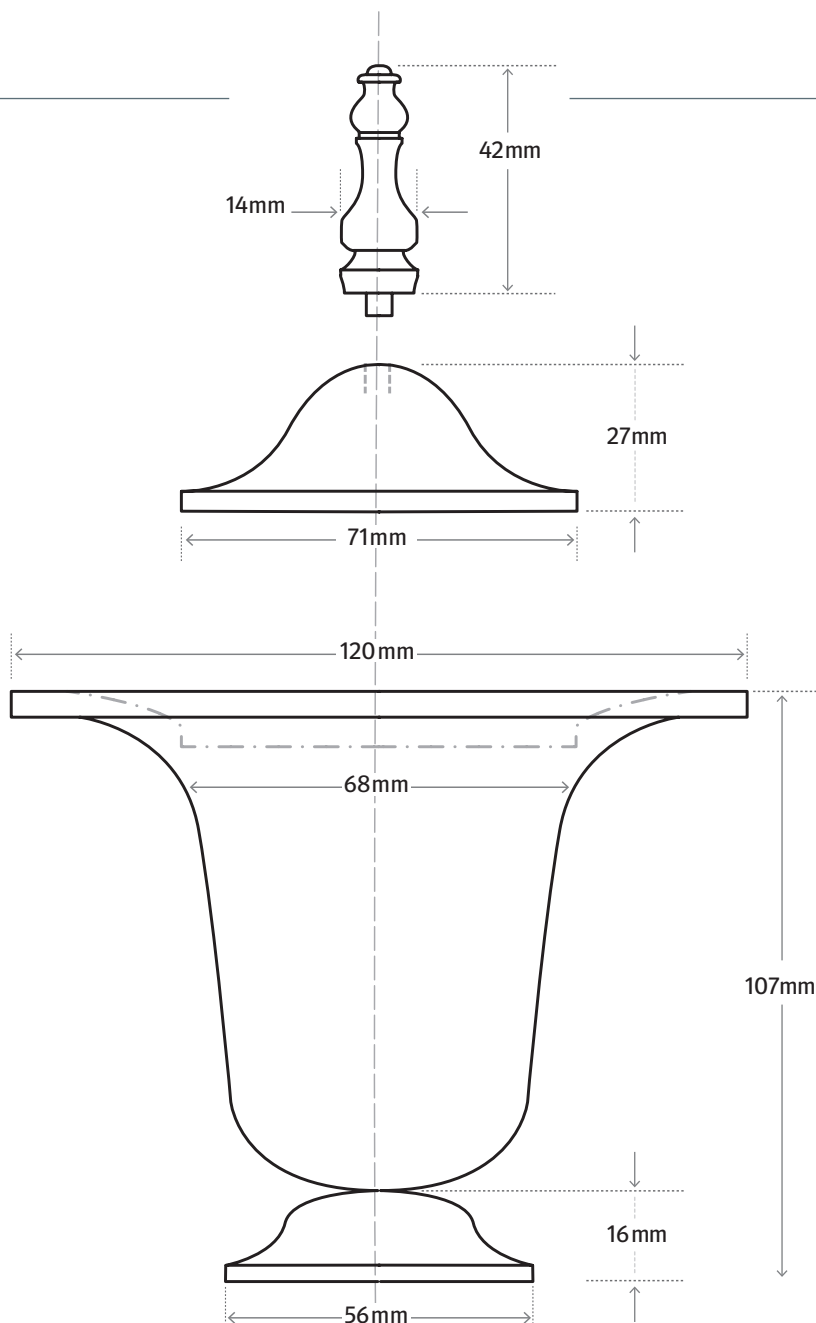
Plans & equipment

Tools & equipment

- PPE as appropriate
- RPE recommended (especially when using yew – see details over the page)
- Spindle roughing gouge
- 6mm spindle gouges
- 10mm bowl gouge
- 13mm round skew
- Pillar drill
- Narrow parting tool
- Diamond parting tool
- 25mm drill bit
- 4mm drill bit
- Vernier callipers

Materials

- Yew log 200mm long with a diameter of 75mm
- Piece of yew 40mm long with a diameter of 15mm
- Pine for various homemade chucks
- Various abrasives
- Hot-melt glue
- Polystyrene sphere
- Finishing oil



Getting started

1 Select a suitable log which still has its bark intact and cut to size. Cutting round stock on a bandsaw can be dangerous due to the tendency of the blade to snatch the wood. This can lead to injury and/or a damaged blade because the forces can be difficult to resist. To cut the log safely I use some hot-melt glue to stick the log end to some flat timber. This stops the tendency of round stock to roll.



2 Mount between centres and make a tenon to fit your scroll chuck. The width of the natural edge finished is about 8mm. This thickness depends to some extent on how confident you are of retaining the bark as the support gets thinner and of course personal choice. (Loose bark can sometimes be re-attached with super glue.) The external shape is created using a spindle gouge with light cuts being taken to preserve the bark.



HEALTH & SAFETY – TOXIC!

Yew wood is toxic and can cause a mild to severe reaction in some people, so should never be used by anybody without care. Respiratory protection should be used at all times when turning, and especially abrading. Yew is a sensitiser, so intolerance can build up over time, even if you are not initially troubled by it. If you experience any of the following symptoms, stop working it and remove it and any shaving or dust created from the workshop.

Type of reaction; irritant, direct toxin, nausea

Affected area; skin, eyes, cardiac

Frequency and strength of reaction; common

Source; dust, wood, leaves, aril (but not the fleshy part)

So what are the signs we need to look for that might indicate potential problems?

- Sneezing and an itchy, runny or blocked nose (allergic rhinitis)
- Itchy, red, watering eyes (conjunctivitis)
- Wheezing, tightness in the chest, shortness of breath, coughing
- A raised, itchy, red rash (hives)
- Swollen lips, tongue, eyes or face
- Stomach pain, feeling sick, vomiting, diarrhoea
- Dry, red and cracked skin

For a more complete understanding of the potential dangers, please see the article **Is Wood Dangerous?** in *Woodturning* issue 357

3 At this stage, before too much wood is removed, it is a good idea to make the recess in which the lid will sit. A parting tool is used for this job. Ensure that the depth of the recess is about 4mm so the lid sits level or only slightly proud of it.

4 When hollowing it is generally easier to pick up the cut from the centre outwards when you have made a central hole.

This can be done with a gouge or a drill bit. The one shown here has a diameter of 25mm. In judging what depth to drill make some allowance for the clean-up operation.

5 The 10mm bowl gouge shown here makes short work of hollowing out the vessel. Steady cuts help keep ridges and irregularities to a minimum. A pimple in the centre can be difficult to remove; it is better to avoid creating one. By pressing the tool down on to the toolrest and rotating the tool from this fixed point when starting the cut you can usually avoid creating a pimple.

6 Once you are happy with the inside shape it is possible to reduce the amount of sanding required by taking one or two light shear cuts with a scraper. The tool is held at a slight angle as shown. Before taking a shear cut, a visit to the grinder may be helpful to create a burr on the edge of the tool.

This allows a very fine cut to be taken. The burr doesn't last long but it can survive long enough to take you well on the way to a smooth surface. Sand and finish the inside. Note that prolonged sanding of yew is best avoided since it is a timber prone to heat checking. This is why good tool work pays dividends since it reduces the need for heavy sanding.

7 Attention can now be turned to the base. Reverse chucking a vessel with a natural edge requires a little ingenuity. Prepare a softwood jam chuck and form a depression that allows a polystyrene sphere to be centred. The vessel is pushed into the sphere and the tailstock keeps everything in place. As an added precaution, and to discourage the sphere from turning in the depression, some hot-melt glue is deployed as shown.



8 Using the witness mark created at the bottom of the vessel when the blank was between centres the wood is easily centred when the tailstock is deployed. With this arrangement the ogee shape of the base can be developed with a detail gouge. Any waste in the intersection between the foot and the main body can be removed by means of a skew chisel.

9 The bottom of the foot is left flat or slightly concave and a little decoration added if desired, using a parting, or point, tool. When the finished vessel is inspected this shows you have considered every aspect. Now is the time to sand and apply the desired finish to the outside of the vessel. Once you are happy with the foot and base part off.

10 Now we can make the bell-shaped lid. Timber from the same log section provides the best colour match with the body. In this photo a piece of softwood has been turned between centres to fit the scroll chuck and the yew blank has been stuck to it using hot melt glue.

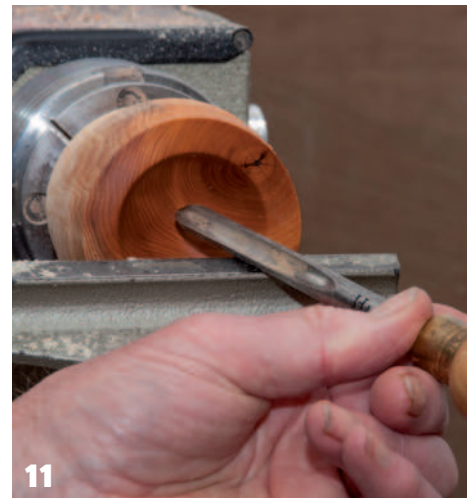
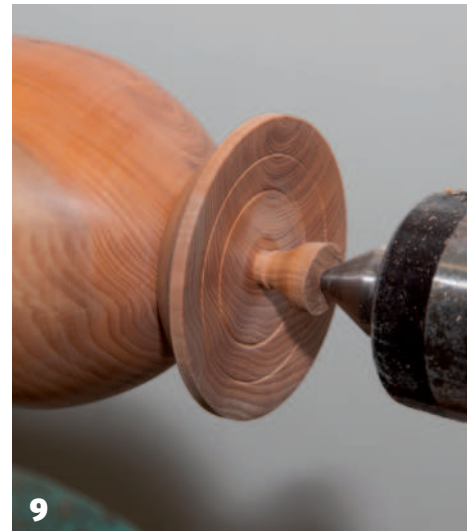
11 The first job after truing up the blank is to turn the inside of the lid with a bowl or spindle gouge. Sand and finish before the next stage.

12 Having completed the inside of the lid we need to form the outside shape. Reverse the blank and create an interference fit with a jam chuck in a soft wood such as pine. The tailstock picks up the witness mark that was left in the chuck at Step 10. Gradually turn away the waste wood at the tailstock end as you shape the outside of the lid. Ensure you leave sufficient thickness at the top of the lid to accommodate the 4mm deep hole required to attach the finial.

13 The bell-shaped lid is nearly finished. Sand and finish. Drill a 4mm diameter hole about 4mm deep to accommodate the finial.

14 The photo shows the timber selected for the finial is glued to some waste wood which has been mounted in the chuck. First form the spigot at the tailstock end and test the fit in the lid. As the spigot is only 4mm long a tight fit in the lid is advisable. Once you are happy with the fit undercut the base of the finial so that it sits on the curved surface of the lid without gaps, sand and finish.

15 Glue the finial to the lid and there it is. ●



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Turning and Images by Brad Herrington & Alan Morrison

Stone alternative

Janice Levi explores surface enhancement using plastic pony beads



PHOTOGRAPHS BY JANICE LEVI

Natural stone to enhance buildings, furniture, boxes, vases, and the like has been used for centuries. In the 16th century, the Italians introduced what they called 'pietra dur' to much of their art. The use of inlaid stone then spread rapidly and eventually it was introduced to the woodturning world. The effects of the stone are stunning but the use of it can also be quite expensive. But there is an inexpensive option – plastic pony beads.

All woodturners have faced that age-old problem; the wood starts out beautifully, then crack! Or, a natural void just won't do for the vessel you are turning. Many have used less expensive options to fill these voids – coffee grounds, woodturning sanding dust, brass filings from the local lock and key store. But let's face it, those just don't add the dazzle element you were going for. You need real stone. However, apart from the cost, there's also the tool torture – one brief cut with the tool, re-sharpen, one brief cut... repeat, repeat. So here is an alternative approach that offers very similar results.

Plans & equipment

Materials

- Coloured plastic pony beads – opaque, translucent, metallic
- Coffee grinder (one you can dedicate to pony beads)
- Sieves – two sizes are preferable, one with openings about 3mm, one with 1-2mm openings
- Thin and thick cyanoacrylate (CA) glue
- Small containers to hold each colour and grit (little plastic jars are available in craft stores)

The making

1 That's where the magic of plastic comes in. It's inexpensive, it's relatively soft, and it's available in every colour imaginable. I use plastic pony beads, the kind of beads that parents buy for their children to make play jewellery.

2 Let me add here that this technique is not my own creation. I was introduced to the process by two members of the Gulf Coast Woodturners Association in the Houston, Texas, area. Bill Berry and Dave Mueller have both been using this technique for years and they introduced it to me. I can't say where they first learned of the process.

3 There are two general applications for using inlay – one is to fill a crack or natural void, the other is to purposefully enhance a piece by creating an area to be filled with 'stone'. In this article, I will talk specifically about creating an area within the turning to be enhanced with the pony beads.

4 The first step is to prepare the pony beads for the inlay process. The beads are readily available at hobby and craft stores; even some large supermarkets have them in the art section. You will need several items for processing the beads: a dedicated coffee grinder (there is a lot of static electricity and the dust clings to the grinder), two sizes of sieves, small containers to hold each colour and each grit, a variety of bead colours, both opaque and translucent.

5 Add a few beads to the grinder and pulse the beads so they don't melt. There will be a lot of noise. Stack the two sieves with the coarsest one on top and a small bowl beneath the stack. Empty the contents from the grinder. The result will be three sizes of 'stone'. Store each size in a separate container. You may have to re-grind some of the beads that remain too large to use. Repeat the process until you have enough to fill the void. It's always wise to grind up some clear beads and some black beads as many natural stones will have a smattering of these colours.

6 Whether you are using the beads to fill a natural crack or to enhance a pendant, you will need to protect the surrounding wood by sealing it with sanding sealer or wax to prevent the CA glue from staining the wood outside the inlay area. To add a bit of extra colour and pizzazz, especially if some of the beads are translucent, use hobby-grade acrylic to paint the area where the beads are to be added with a colour that matches the beads.





7 With this pendant, I've chosen to create the effect of turquoise stone. I'll use a colour mix of turquoise, clear, and black beads. If applying the beads to a fairly flat surface like this pendant, generously fill the area with the largest of the beads. Apply just enough thin CA glue to hold the fragments in position. Next, add some of the middle-sized turquoise beads plus a small amount of the clear and an even smaller amount of tiny black bead dust. Add more CA glue and then a bit more of the bead dust. It's okay to use CA accelerator because if it does bubble, the glue will take on the look of clear crystals in the stone.



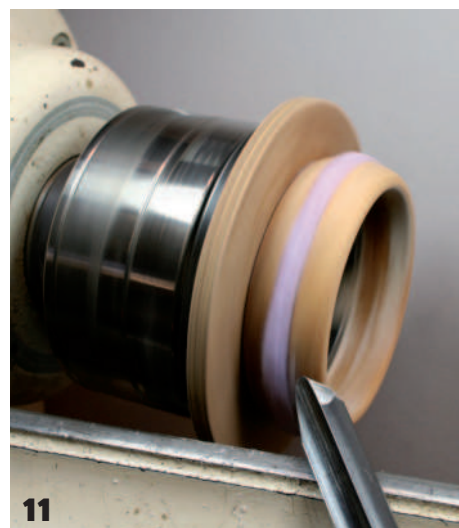
8 When applying the beads to a curved surface like this bracelet, it is easiest to work with the bracelet on the lathe.



9 After adding sanding sealer or wax to protect the wood surface and optional acrylic paint to the trench area, add a few drops of thick CA glue into the groove cut along the top of the bracelet to act as a little dam. Quickly add a few of the large stones. Secure these into place with thin CA glue.



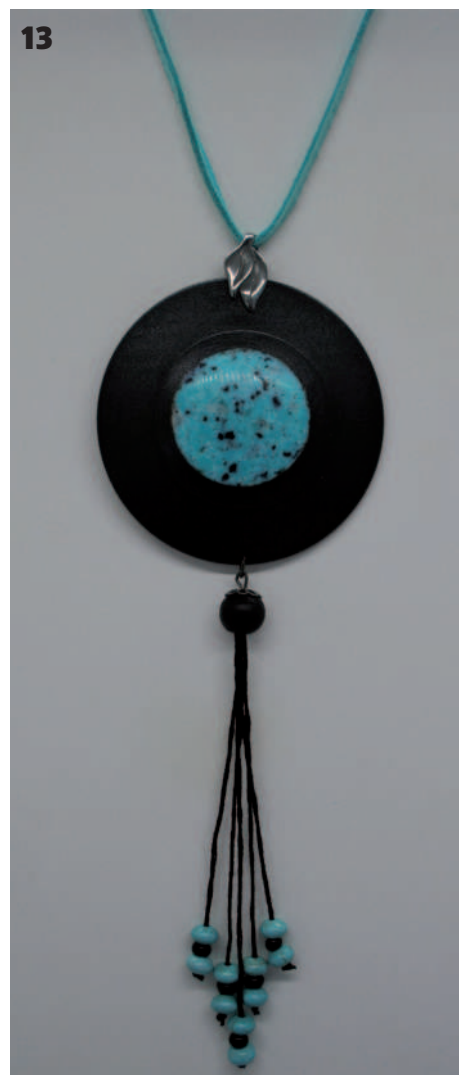
10 Rotate the bracelet slightly and add more large stones and thin CA glue. Complete this process around the circumference of the bracelet. Now start again with the next size of stone, as in Step 7.



11-12 When the CA glue is completely dry, turn the bracelet and the pendant surface with your usual turning tools, either a bowl gouge or a spindle gouge. If small holes develop, add more bead dust and thin CA glue. Continue the process until all holes are filled and you are satisfied with the end product. Because the pony beads are relatively soft, your turning tools will not suffer from the process.



13 Sanding through the grits with micro-mesh sanding pads will create a beautiful shine to the pony beads. Or buff the beads using a Beall buffing system. You can now carefully add the finish of your choice to the pendant, bracelet, or hollow form, and sometimes the finish is a coat of contrasting acrylic paint. Avoid getting the finish on the newly buffed beads.



14 Now for the real test. Show your item(s) to friends and see if they can guess whether or not you've used real stone. ●





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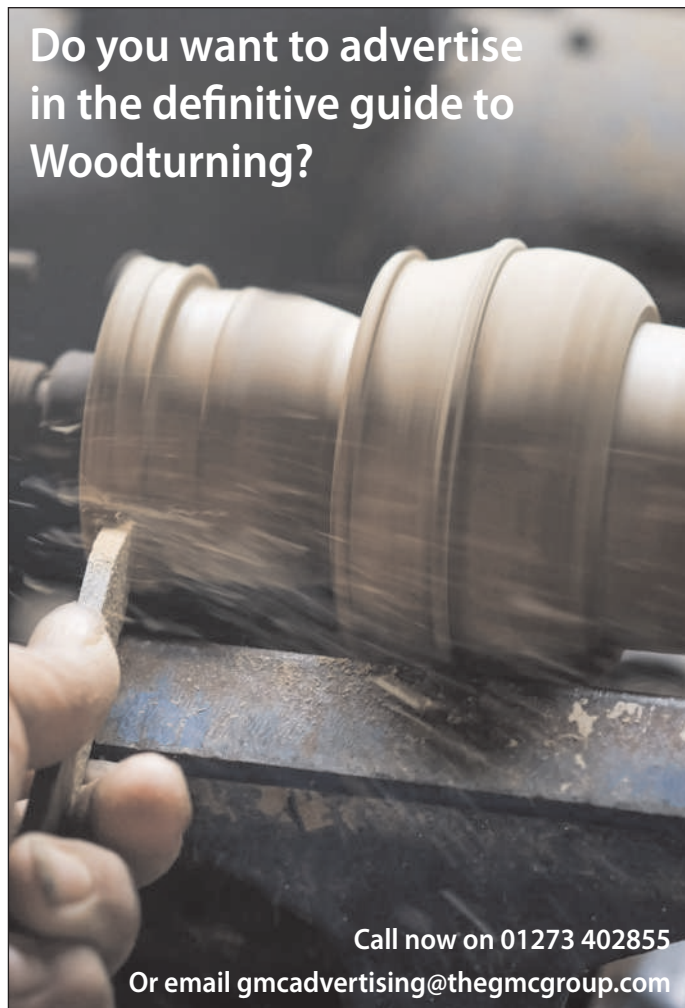
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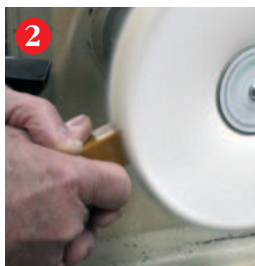


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2 If using a stick wax, load the wheel as before. Be careful when using the Microcrystalline Wax Stick, you don't need too much of this. If using the Carnauba Wax Stick (supplied in the kit) you can't overload the wheel, although it's wasteful to apply too much.



3 Offer your work up to the wheel as before, working in the bottom quarter of the wheel, and carefully buff the entire surface.



4 The finished bowl; bright without looking plasticky, protected by a coating of hardwearing wax.



5 The C Wheel can be used to buff both Carnauba and Microcrystalline Wax Sticks.

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Ampoule bud vase

Jim Duxbury creates a sophisticated-looking object with some salvaged glass ampoules

A couple of years ago I picked up a box of very strange-looking test tube-type glass treasures that were being discarded. The shape was so unique there just had to be a special use for these odd little vials. They seemed to lend themselves to being a bud vase. I have turned offset wooden spindle-type bud vases with glass test tubes in them and they work fine, but these small vials were just waiting for some creativity to show off their detailed form. Maybe a thick, round disc with the vial set into it and some strategically cut viewing holes? On to the drawing board.



Most of my work is drawn first. It is much easier to draw a piece and scrap it rather than to make the thing and find out it is not exactly what you want. Often once the design is perfected and the drawing is complete, the next problem is how to turn the actual piece on the lathe. This ended up being the most difficult challenge and a number of scrap pieces were made in the process, but the final piece resulted in a fun turning and is probably adaptable to many other situations.



PHOTOGRAPHS BY JIM DUXBURY

The making

1 After showing this unique bud vase design to other turners, finally it was explained by a retired chemistry professor that the vial is an ampoule. An ampoule (also ampul and ampule) is a small vial which is used to contain and preserve a sample, usually a solid or liquid. Ampoules are generally made of glass. This type of ampoule would be filled and the stem heated to melting point then twisted off to leave a permanently sealed glass container.

If an ampoule is not available, a similarly sized test tube $\frac{3}{4}$ in dia and about 5in long could be substituted.



2 To make this bud vase, begin with two pieces of contrasting hardwoods 6 x 6 x 1in (152 x 152 x 25mm). In this case a piece of jatoba was used for the centre with a piece of maple for the outer trim. Flatten and sand all surfaces.

3 Mark lines from corner to corner to find the centre and drill a $\frac{1}{16}$ in (2mm) hole through each piece. The holes will be used for alignment during gluing and as a reference later. Next, on the maple blank, mark the centre of a 1in side with a dark black line.

4 With a bandsaw, cut the maple block in half to yield two 6 x 6 x $\frac{1}{2}$ in (152 x 152 x 25mm) pieces. This cut can be made with a regular bandsaw fence or with a 90° floating fence detailed in my article, *The Perfect Match*, on page 58 of issue 368. With the floating fence, clamp the piece to the fence and carefully cut up to the clamp. Stop the saw.

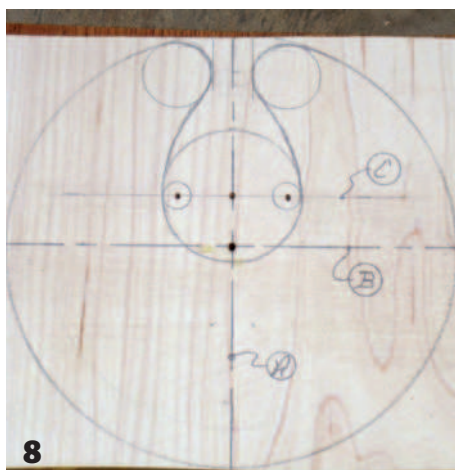
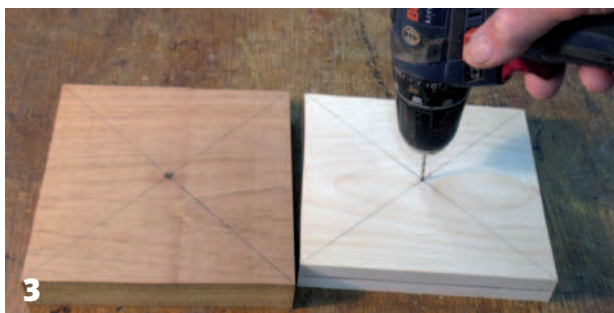
5 Remove the clamp and put it on the cut side of the piece. Start the saw and complete the cut.

6 Now it is time to glue one piece of maple to each side of the jatoba. The bandsawn surfaces are not good glue surfaces, so spread yellow wood glue on both sides of the jatoba and the smooth side of each maple square.

7 Take a stiff piece of wire or a $\frac{1}{16}$ in (2mm) drill bit and insert it into the drilled centre holes of all three pieces for alignment. Align all the grain in the same direction and securely clamp the pieces on all four corners. Let the blank cure at least overnight – longer is better.

8 Once the glue has cured, remove the centre wire and clamps. Lightly sand and clean up one maple side. With the aid of the dimensioned plan, draw the shape on the maple piece.

9 Drill two $\frac{3}{8}$ in (10mm) holes on line C tangent to the $1\frac{3}{4}$ in (44mm) circle and a $\frac{1}{16}$ in (1mm) hole where lines C and A intersect. These holes are shown drilled on a pillar drill and that does ensure accuracy, but if care is taken they can be drilled by hand.



10 Turn the blank upward 90° and clamp it securely. Note: The 90° floating bandsaw fence works well here too. Then in the centre of the 1in jatoba wood (not the centre of the total piece thickness) and on a line perpendicular to line A, drill a $\frac{3}{4}$ in (19mm) hole the depth of your ampoule. It is wise to drill this hole about $\frac{1}{4}$ in (6mm) shy of its total depth and drill to completion after the piece is turned. This allows a fine adjustment to the height of the ampoule after the piece has been completed. Sometimes an eighth of an inch is a mile.



10

11 Now back to the bandsaw. Using a $\frac{3}{8}$ in (10mm) or less blade, carefully cut out the $5\frac{1}{2}$ in (140mm) OD of the piece. Cut just outside the line to leave some wood to finish turn.



11



12



13

12 Note: It is unwise and unsafe to make a bandsaw cut part-way into a piece and then back out of the cut. Read both step 12 and 13 before proceeding. Then take your time on these next two cuts and leave the line. Cut from the OD of the piece down into the $\frac{3}{8}$ in (9mm) hole.

13 Once the blade gets into the hole, carefully turn the piece around in the hole and with the saw running follow the saw cut out of the piece. Again, take your time and stay in the existing cut.

14 This piece is designed to be mounted on a screw chuck, a small faceplate with a wood screw in the centre of it. So, on a pillar drill enlarge the $\frac{1}{16}$ in (1mm) centre hole to fit the screw and mount the pin chuck.



14



15

15 Mount the piece on the lathe, bring up the tailstock, set the speed to about 700rpm then bring it up to whatever you're comfortable with, and with a $\frac{1}{2}$ in spindle gouge turn the piece round.

16 Now that the piece is fairly balanced, remove the tailstock and face off the flat surface. Pull cuts work well for this.

17 With the piece rounded and flattened it is time to start the design. For this piece measure out $1\frac{1}{4}$ in (32mm) from the centre and, turning the lathe by hand, draw a $2\frac{1}{2}$ in (64mm) circle. This will make one large ring in the final piece but two or more rings could be another option. The only limitation is your imagination.



16



17



18 Using a $\frac{1}{8}$ in (3mm) parting tool cut a slot about $\frac{3}{16}$ in (5mm) wide, down to the contrasting wood.



19 Then with a $\frac{3}{8}$ in (10mm) spindle gouge start to round over the slot sides.



20 Continue to cut deeper, exposing the drilled ampoule holes. If you drilled them perfectly, both holes will be the same size, but it is no problem either way – beauty is in the eye of the beholder.

21 Do not go too deep. Carefully cut a partial ring into the centre disc, lowering the centre area about $\frac{1}{8}$ in (3mm).

22 Turn the lathe speed down. Take a long strip of sandpaper, hold one end in your left hand, and press the tailing end into the piece with your right hand. This eliminates the possibility of the sandpaper getting caught on the cuts and holes in this surface. Bend the paper to fit the surface configuration and details.

23 Similarly sand the outside of the piece. This also has holes and cuts in it so be careful. When completed, stop the lathe and hand sand any areas needed.

24 Remove the piece from the screw chuck and turn it around to be mounted on the finished side. Turning the second side starts to make the piece thin in the centre. Remember there is a $\frac{3}{4}$ in (18mm) hole right through the piece, so wood in the centre that the screw chuck threads into is getting very thin. Just to be safe, insert about a 5in (125mm) length of $\frac{3}{4}$ in dowel into the ampoule hole, drill it for the screw chuck centre and mount the piece firmly on the screw chuck.

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22



23



24

25 Turn the lathe speed down and make sure the piece is running true, then face off the final surface.

26 Cut another 2½in (63mm) slot similar to Step 18. However, this surface presents a new design opportunity, a new canvas so to speak. Use your imagination but keep in mind the ampoule size and shape.

27 Similar to Steps 18 and 19, roll over the edges and cut into the jatoba wood. Notice now the sacrificial dowel is exposed and not just an open hole.

28 On this side I am cutting into the jatoba a little wider and deeper to artistically expose more ampoule. Cutting the centre area lower adds a different look too but much of this centre will be cut out with the bandsaw later.

29 When the surface has been shaped some accent trim can be added. In this case, two grooves are cut with a ¼in (6mm) three-sided point tool. Small beads or burn lines would work well here also.

30 Final sand all surfaces as in Step 22. Be sure to shape the sandpaper to the surface being sanded and into the details. Sanding removes wood and can ruin the crispness of details.

31 Remove the piece from the lathe. Set a compass to 7⁄8in (22mm) and from the centre hole where lines C and A cross, not lines B and A, draw a 1½in (44mm) diameter circle. Mark a black line so you can easily see it over all the details.





32 Before placing the piece on the bandsaw remove the $\frac{3}{4}$ in (19mm) sacrificial dowel. Then carefully cut into the existing saw cut. Continue to completely cut out the entire centre. Take your time and stay just inside the line.

33 With the centre removed, place a long length of $\frac{3}{4}$ in dowel in the ampoule hole and, with the dowel at 90° to the sanding disc, sand a flat surface to form the piece bottom.

34 From here the centre area can be sanded with a small drum sander on a rotary tool. Place the ampoule in the piece and final drill the $\frac{3}{4}$ in hole to the desired depth.



35 After a final inspection the piece is ready to finish. Spray lacquer works well or use your favourite choice of finish. Holding the piece on a $\frac{3}{4}$ in dowel clamped in a vice allows you to coat most areas.

36 When the piece is completed set it upright, add the ampoule, sit back and admire your work.

37 Now if I could just figure out how to use this neat little centre cut-out piece. There has to be something – it is too nice to dispose of. Hang on, this might be my next article. •



The design can be used in a number of variations, using whatever contrasting wood you have

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Kurt's clinic

Kurt Hertzog answers readers' questions

I am having a terrible time getting my castings to release from my moulds. I'm using 2in PVC pipe and I've tried clear PVC too. Regardless of the different mould releases I've tried in either PVC, I often have to freeze the mould after casting, then pound out the casting. Is there an easy way to fix this?

Any non-flexible mould with insufficient draft angle will always be difficult to demould. The deeper the mould, the more difficult demoulding will be. Your PVC moulds, with zero draft angle and inflexible side walls, will be problematic at best. Especially if the aspect ratio, depth to width, is high. From good mould design perspective, probably only rough side walls would add much more to your woes. I'm assuming your selection of 2in PVC is based on it being the closest to your needed size and you aren't relying on the as-cast sidewall for exact sizing, shape, or surface finish. If you'll be cutting away some of it for final sizing and shaping, I can suggest several simple ways to solve your current mould release problems. The quickest and easiest solution I can offer is to line your pipe moulds with a throw away liner for each use.

Aluminium foil will work wonderfully. Use it inside your cut-off pipe mould to contain the resin while being poured and cured. Obviously,



you can have no seams that will allow leakage when you are forming your aluminium foil liner. Essentially, you'll be putting an aluminium foil cup that is sized to sit inside your PVC pipe. With no resin leakage, only the friction between the outside surface of the foil and the pipe inside wall is holding it in place before, during, and after curing. The foil is now acting as the mould with the PVC merely providing extra side wall support for the foil. If you are a pressure pot caster, a matrix of PVC pipe mould 'supports' can be hot-melt glued together or directly to a board that fits into your pot for mass production. Leave long enough 'tails' on your aluminium foil mould to lift the cured castings out of your support pieces on completion. I doubt you'd ever need them, but you could drill a small hole through the bottom of the board in the centre of each mould location just in case a dowel or punch is needed to assist with any difficult removals.



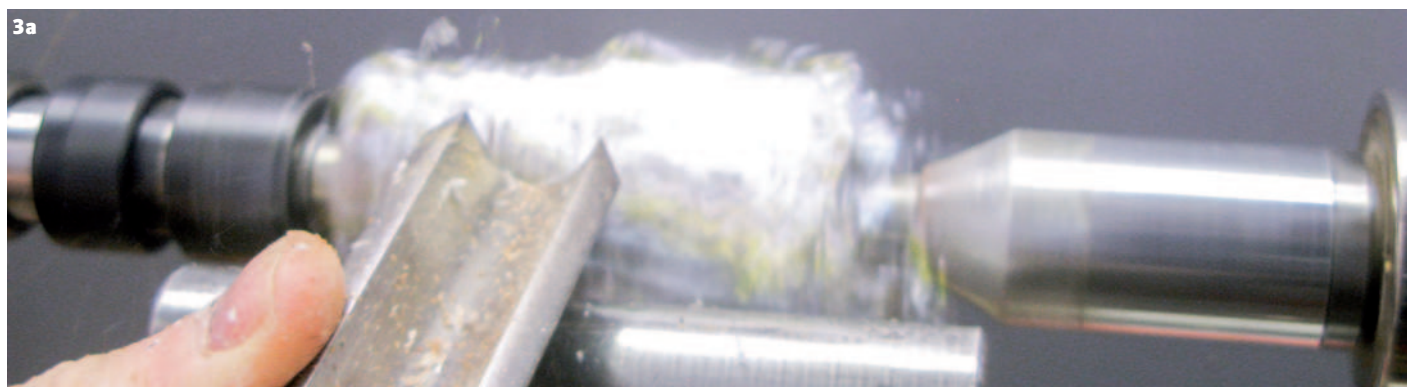
1 A cup (or whatever) used as a form, that formed foil mould as a liner, a stand-alone mould reinforced with some tape, and a sacrificial mould (after testing for inertness) of the desired size. **2** No need to remove the foil mould from the casting. Continue to process your blanks as if it wasn't there

PHOTOGRAPHY BY KURT HERTZOG

I own an assortment of flexible moulds, properly draft wall'd polyethylene moulds, and cobbled up plastic food service items I use as moulds. Even having all of those other moulds available, I almost always use just aluminium foil alone. It's fast, easy, infinitely adaptable, and inexpensive. Personally, I'd suggest you skip the PVC supports altogether and just use some masking tape around the foil formed as a mould to maintain shape while casting. Use a bottle, cup, piece of pipe or something of the correct size as a pattern, form the foil around it, tape around the outside of the foil for support, and slide it off to use as a stand-alone mould. Better yet, put the foil into the cup and use it as the mould. For your round castings, you can use a coffee or drink cup of the proper size as a wall support for your foil mould if you wish. There is certainly a cup size available that suits your needs. You'll be able to mould 2in or any other size you wish. The draft angle on the side of the cup makes removal easy. Sliding out the foil with the casting allows you to reuse the cup. You can skip the foil altogether if you find a cup material that won't be attacked by the resin you are using.

Something like wax-lined paper cups might work depending on your specific casting resin chemistry. Test this on a small scale before you bet the ranch. In my opinion, peeling off the foil and/or the cup after casting solidification accomplishes nothing other than wasting time. Pretend the foil isn't there and simply work with the casting as you normally would through the rest of your process. When the time comes, turn the foil away with your regular woodturning tools once you mount your blank on the lathe and do the rest of the shaping.

I cast a variety of materials and shapes but tend to do more pen blanks than other items. Because of their aspect ratio, foil pen blank mould side walls want to flex out from the weight of the resin. I usually stack my pen blank moulds side by side to support each other or stack them in a shoe box or the like. I also have a support jig made of pen blanks I've hot-melt glued on to a board. I use this foil casting method almost exclusively except when I want to cast in brass tubes. Then, the silicone moulds designed expressly for that purpose work best.



3 Aluminium foil cuts away so easily, I never waste time removing it prior to turning on the lathe. **4** What size blank do you need? You can make any size you want with no investment but pennies-worth of aluminium foil. **5** Just some of my moulds. These, my purchased moulds, and my 'on-demand' create my own foil moulds, and let me cast any resin material we hobbyists might use in any size desired. **6** When I'm casting pen blanks, I use the desired size blank as the pattern to fold my foil around when making the mould

While certainly the least attractive alternative from my perspective, you can continue to use your existing method of casting directly into the PVC pipe. Castings that release properly get processed and those that are stuck get processed with the PVC stuck in place. You could also just skip the release and let each moulding stay stuck in the mould.

The PVC will turn away quite nicely in only moments on your lathe. Or you could make a few bandsaw cuts to remove the stuck mould sections like staved barrel pieces. Either way, that length of PVC mould is now a perishable in your process so simply factor it in as material cost. Where I live, the retail price for a 10-foot length of 2in

diameter, schedule 40 PVC is \$8.84. At less than 90 cents a foot, you can turn away any stuck PVC mould sections without breaking the bank. I think it would be quite silly and certainly extra work using this method compared to a roll of aluminium foil, but it's your call. See my column in *WT275*, January 2015 for a more exhaustive coverage of casting resins.

The available casting materials continue to change over the years but the principles of mould design, mould release agent use and techniques, workable draft angles, and good casting practices all still follow the same fundamentals.



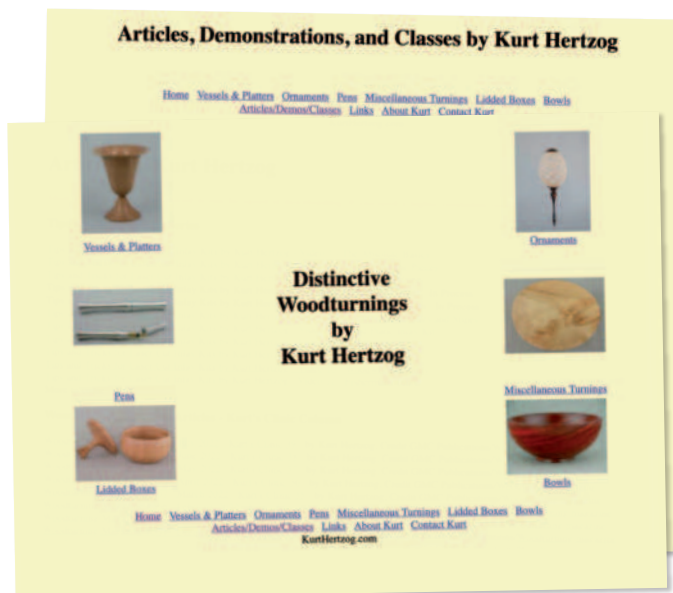
7 Foil pen blank moulds want to bow out in the middle. An easy way to support the side walls of pen blank moulds while casting. **8** The silicone mould works great but only does one size. Can you see the infinite flexibility of using the foil mould idea for diameter, wall sizing, and depth of casting for any application size? **9** I usually post mould bake my polyester resin castings. Not required but it reduces tackiness of the outside of the blank. Done outside in an old, shop only, toaster oven at minimum temp. **10** Ready for cutting and drilling. Foil left on until it gets turned away on the lathe. Notice the cut marks, interface indication, and blank matching. Just a good habit regardless of material

You often include other material sources in your answers. Most of it is from years ago. How am I supposed to find that stuff?

I include those references for convenience for those who want to follow for more information on a specific topic. For the most part, the references are for my material. I know what content is pertinent and support it as accurate and safe (always provided the reader does follow safety protocols).

There are a variety of sources for you to follow up with. Your club or club members may have a collection of the turning magazines and books I point you to. Back issues of *Woodturning* magazine are available through its website. My local public library has a collection of various magazines but purges them every few years. The AAW references are always available online for members.

As an effort to continue sharing the information, I keep all my created content on my website after it has been published. I don't monetize or get any benefit from the site traffic. You can find my 250 or so as published woodturning-related articles on my website at <http://www.kurthertzog.com>.



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Art Deco-style vase

Sue Harker shows how to turn a multi-function yo-yo vase

I have been intrigued by this style of Art Deco vessel for some time now and have finally had a reason to turn my interpretation of it. In this article I explain and illustrate how this can be achieved using sycamore, which has a subtle grain pattern and lends itself to decoration.

I prefer my turnings to have some form of practical use where I can, so I have turned one of the cones into a candle holder and the second into a bud vase so the vessel can be used for different purposes. You could leave the ends solid, continue the painted patterns over the top and use it purely for decoration. The colours I have used are in keeping with the vibrancy of decoration used during the Art Deco period, however, colours to suit your home decor could be used instead.

As with so many turning projects, how to hold the timber on the lathe to achieve your goal can be a challenge. With these cones having holes drilled in each end for a bud vase insert and candle cup insert respectively, the natural progression was to use these holes for remounting each piece on the lathe with the use of purpose-made, tight-fitting jam chucks.



PHOTOGRAPHS COURTESY
OF SUE AND GRAHAM HARKER

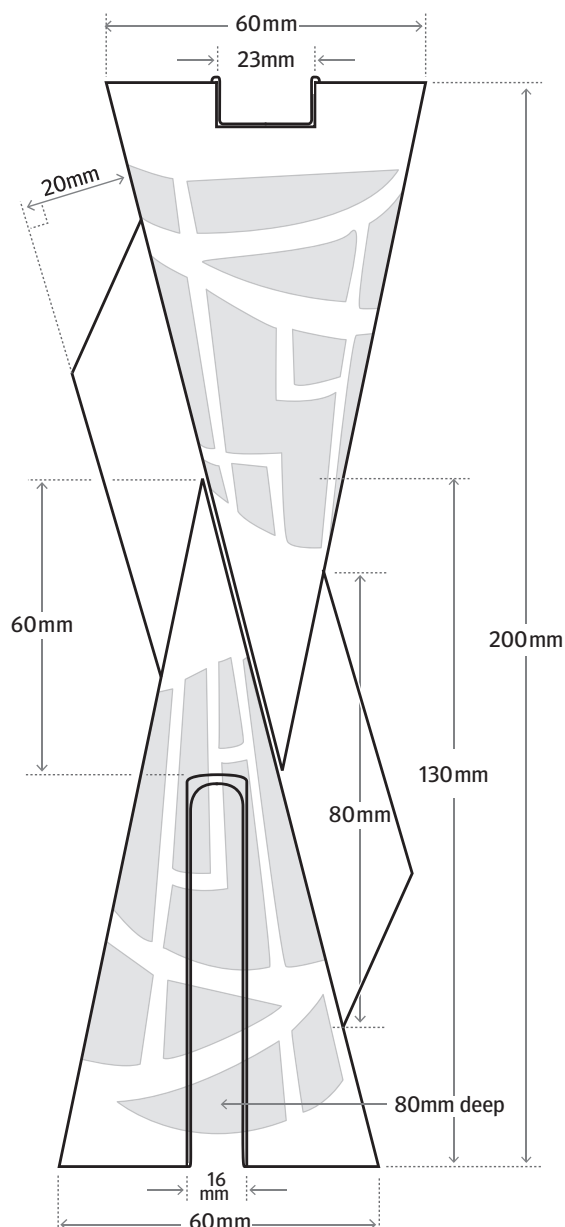
Plans & equipment

Tools & equipment

- PPE & RPE as appropriate
- $\frac{3}{8}$ in fingernail profile spindle gouge
- Spindle roughing gouge
- $\frac{1}{8}$ in parting tool
- Flat shaft $\frac{1}{8}$ in skew chisel
- Jacobs chuck, $\frac{7}{8}$ in drill bit, 16mm drill bit
- Instant bond superglue
- 120, 180, 240, 320 and 400 grit abrasives
- Steel rule
- Pyrography machine with medium wire tip fitted into the pen
- Low-tack tape
- Masking tape
- Small paintbrush
- Sanding disc jig
- Bandsaw
- Shape finder

Materials

- Candle cup insert
- Bud vase insert
- Two pieces of sycamore measuring 65 x 65 x 150mm long
- 1 piece of scrap timber 60 x 60 x 60mm long
- 1 piece of scrap timber 60 x 60 x 75mm long
- 1 length of timber 200mm long x 20mm wide x 8mm thick (thicknessed)
- 4 assorted colours of acrylic paint
- Chestnut spray acrylic sanding sealer
- Chestnut spray acrylic gloss lacquer



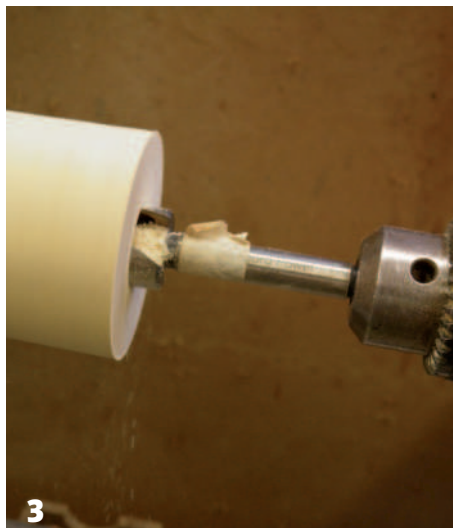
The making

1 For the first cone, mount one of the pieces of sycamore measuring approx. 65 x 65 x 150mm long on the lathe between centres, using a revolving steb centre in the tailstock and a steb drive in the headstock. Turn the sycamore into a cylinder using a spindle roughing gouge. Next, cut a chucking tenon, the correct size for your chosen jaws at one end. A $\frac{1}{8}$ in parting tool is used for this. Here I am cutting a dovetail using a flat shaft skew chisel laid on its side.

2 Mount the timber on the lathe using the chucking tenon cut earlier, bring the tail drive up and locate into the hole already in the end of the cylinder. Using a $\frac{3}{8}$ in fingernail profile spindle gouge, true up the top face, coving in slightly. Cut as close to the tail drive as possible without catching it.



◀ **3** Secure a Jacobs chuck, with a $\frac{7}{8}$ in drill bit fitted, into the tail drive. Turn the speed of the lathe down to approx. 500rpm and drill a hole to the depth of the candle insert being used. Check the candle cup for fit and adjust if necessary. The candle cup I am using requires the opening of the hole to be slightly wider – this can be achieved by rolling a piece of 120 grit abrasive into a tube and sanding the area to refine the fit.



4 To assist with turning the taper, cut a recess approx. 1in deep x two widths of a $\frac{1}{8}$ in parting tool. This is done at the headstock end of the cylinder, leaving a small amount of timber the full diameter, so the integrity of the chuck hold is not compromised.



5 Draw reference marks around the timber at approx. 10mm intervals and use a spindle roughing gouge, starting with the reference mark nearest to the chuck, to begin to create a taper. Work each reference mark in turn, taking a cut from the mark towards the recess cut in the timber. By using this method, more timber is removed from the bottom section and less from the top, creating a parallel-sided taper. Moving the tool rest in line with the taper as you progress will also help.



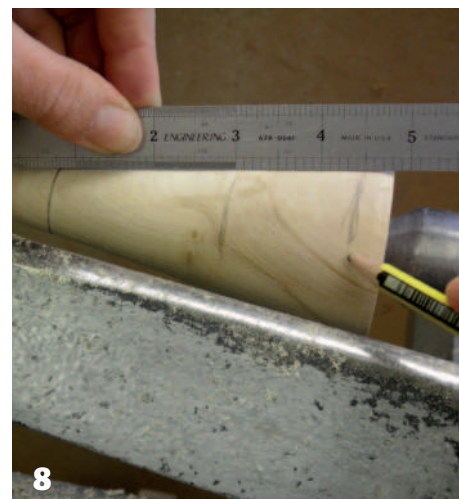
6 Deepen the earlier-cut recess as you progress to create more room for further shaping. Repeat the reference marking along the timber to assist with the tapering process.



7 Continue with the tapering method shown above to refine the shape. Change to a $\frac{3}{8}$ in fingernail profile spindle gouge when the area becomes too confined for using the spindle roughing gouge. Reduce the taper point to approx. 10mm diameter.



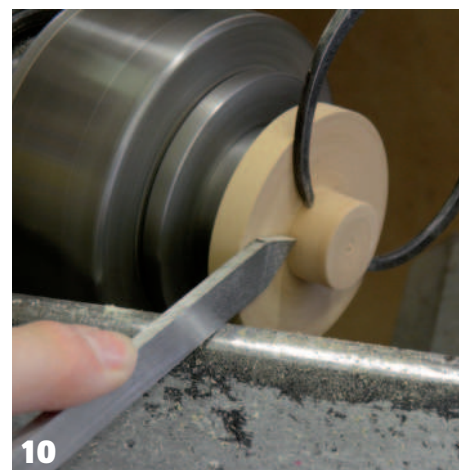
8 Check the surface of the taper to make sure it is parallel. To do this, hold a steel rule along the cone to check for high and low spots. Mark the high spots with a pencil and refine the shape, as necessary.



9 Sand the top of the candle holder cone using abrasives grits 120, 180, 240, 320 and finishing with 400. Next, spray the sanded surface with acrylic sanding sealer. The remainder of the cone will be sanded when the tenon has been removed and the point finished.



10 Turn a jam chuck for the candle cup hole to fit on to. For this a piece of timber approx. 60 x 60 x 60mm long is mounted on to the lathe between centres and turned into a cylinder. Cut a chucking tenon at one end. Mount the timber into the chuck and cut a tenon the correct size to fit into the candle cup hole. A pair of spring callipers set to $\frac{7}{8}$ in and a $\frac{1}{8}$ in parting tool are used to achieve the correct diameter.



11 Push the cone on to the jam chuck and bring up the tail drive for support. Using a $\frac{3}{8}$ in fingernail profile spindle gouge, start to remove the chucking tenon.

12 For shaping the cone's point, take gentle cuts towards the tail drive, blending into the existing taper, checking the taper is still parallel as you progress. For the final few cuts, release the tail drive pressure but leave the tail drive located in the hole. Remove the tail drive completely when the final cut has been made.

13 With the timber still attached to the jam chuck, sand the cone, working through abrasive grits 120, 180, 240, 320 and 400 checking the surface finish between each grit. Try to avoid applying too much pressure to the timber when sanding as this may loosen the jam chuck's hold. Spray the cone with acrylic sanding sealer and, when dry, remove from the lathe.

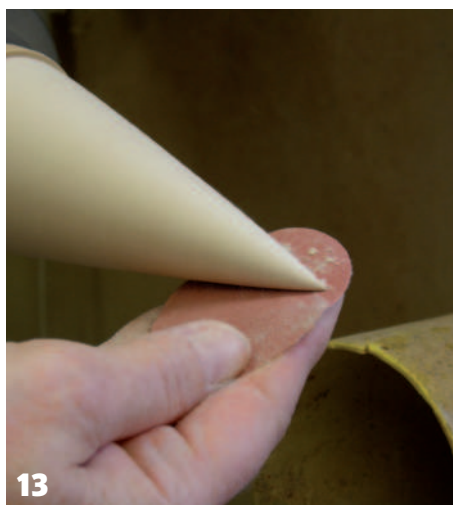
14 For the second cone, mount the second piece of sycamore on the lathe between centres and repeat Steps 1 to 13, making the following adjustment to Steps 3 and 10. For Step 3, use a 16mm drill bit to drill a hole into the cone to a depth of approx. 85mm to receive a shortened bud vase insert. For Step 10, mount a piece of timber 60 x 60 x 75mm on to the lathe and, when cutting the tenon, set the spring callipers to 16mm diameter, making a tenon approx. 50mm long.

15 Mount a sanding disc jig, as described in Top Tips (over), on to the lathe and, with the lathe running no more than 1000rpm, sand a flat surface at both ends of the cones, approx. 60mm long. Take care not to push into the outer edge of the disc as this will sand an unsightly ridge into the timber. Should you prefer, the sanding can be done with the lathe stationary, lock the spindle and use the sanding disc to manually sand the flat areas.

16 Check the two flat sections make a neat joint and, using fast-drying superglue, glue the cones together. Hold in place until the glue is dry, avoiding any surplus glue adhering to your hands.

17 Next, cut two 'fins' 20mm wide x 80mm long, the correct shape to fit the area where the two cones are glued together. A piece of timber a minimum of 200mm long and 20mm wide is used for this. By using a shape finder, you can transfer the required angle to a piece of card so the shapes can be drawn (see Top Tips over for photos). Cut out the cardboard shapes and try them for fit, refine if needed. Place the cardboard templates on the wood and draw around them. Using a bandsaw, cut out the shapes, taking extra care not to get your hands near the blade. Here I am using a scrap piece of wood, a push stick, and the rip fence to feed the timber through the blade.

18 Using a wood vice or similar to secure one of the fins, with the face needing working on facing upwards. Using a round rasp, remove some of the centre of the cut edge so it fits the cone more snugly. Try the fins for fit and refine where necessary.



Top tips

When sizing the jam chucks, initially cut them slightly larger than required and reduce in size a little at a time. It is better to have a slightly tight fit, locate the tail drive and wind in to secure the cone on the jam chuck. When refining the tip of the cone, leave the tail drive secured in place for as long as you can.

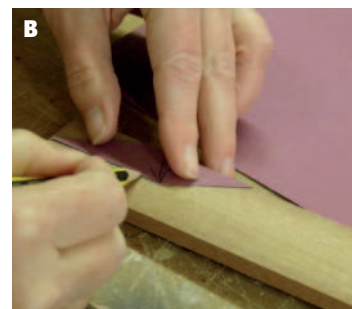
When using a bandsaw to cut out the fins, extra care needs to be taken due to their small size. Use the bandsaw's rip fence as a guide and a push stick and a long piece of timber to guide the timber through the blade.

Making a sanding disc jig

Attach a faceplate ring, or glue on a sacrificial chucking tenon to a piece of plywood or similar. Mount on to the lathe and turn into the round to fit your chosen adhesive sanding disc.

Making the fins

Use a shape finder to take a template of the angle required. Transfer the shape finder profile to a piece of card and draw the shape required for the fins. Cut them out and draw round them on to the piece of planed timber. Carefully cut them out using a bandsaw.



A Using the shape finder. **B** Transferring the fins' shape to the timber

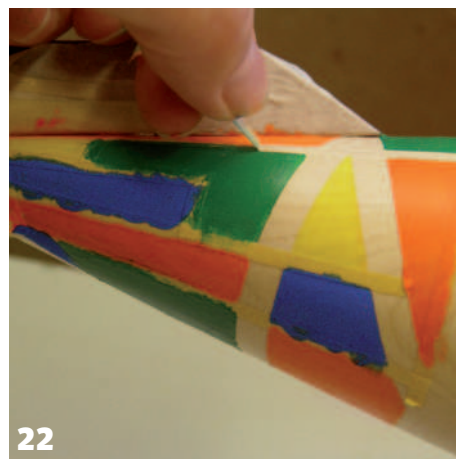
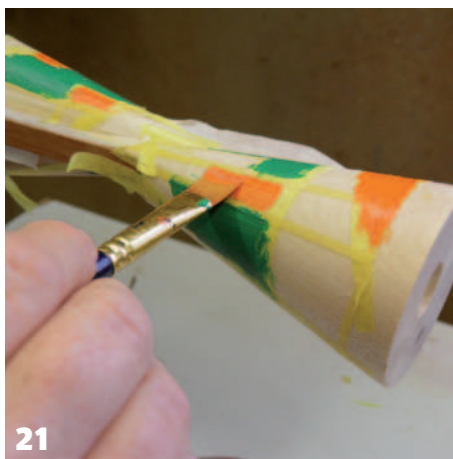
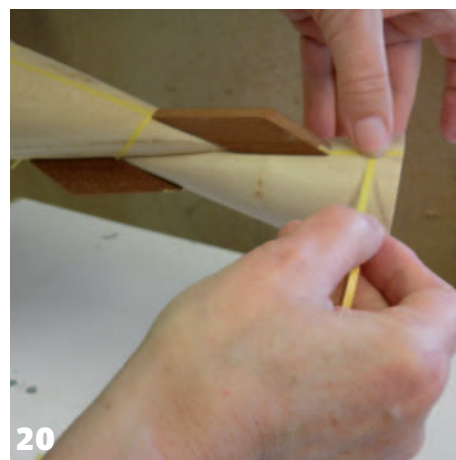
19 When both fins fit correctly, glue them in place with quick-drying superglue, holding each fin in place until the glue is dry. Next, spray the finished piece with acrylic-based sanding sealer.

20 For the Art Deco-style decoration, the sections need to be masked so the paint can be applied leaving a crisp edge. Use low-tack tape approx. 2mm wide to create assorted sizes and shapes for added interest. Firmly smooth the tape down to ensure adhesion and prevent the paints from seeping.

21 For the decoration I am using vivid colours of acrylic paints, in keeping with the vibrancy of the Art Deco period. Using your chosen colours, paint all the taped shapes in random order, taking care to keep the paint within each taped section.

22 When all the paint has dried, peel away the low-tack tape to reveal the crisp edges of the painted shapes.

23 Next, using a medium pyrography wire tip fitted into a pyrography pen and the machine set to a medium heat, carefully draw burned lines around all the painted shapes. The burner wire tip may clog, so have a wire brush handy to regularly clean it.



24 The final decorating process is to paint the fins black to match the pyrography outlines. To do this, apply masking tape all around the fins and rub down firmly. Next, apply a coat of black acrylic paint using a small paintbrush. When the first coat is dry apply a second coat and allow to dry before applying a spray sanding sealer to the entire project. Allow the sealer to dry before spraying several thin coats of acrylic gloss lacquer, allowing each to dry before applying another. To finish the piece, glue in the bud vase insert and candle cup insert. Superglue can be used for this. ●





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Using Jesmonite

Adrian Jacobs creates a bowl from a rejected project by adding a rim and foot in an eco-friendly casting material



PHOTOGRAPHS BY ADRIAN JACOBS

Every Saturday, my local village hall has a small market where the locals can sell their produce and artisans can set up craft stalls. On a recent visit, I came across a young woman selling jewellery and trinkets made from a substance that I did not immediately recognise. She told me she was using Jesmonite; a new product that is a two-part, water-based, eco-friendly resin that, among other things, uses plaster of Paris as a base. Fascinated, I did some research and concluded I had to have a try at this and use it to enhance turned items. Some years ago, in *Woodturning 145*, I wrote an article on how to use a variety of substances (including ground-up tapioca) to enhance polyester resin coloured with powder paint. I thought that Jesmonite would be ideal and a more flexible way to put ceramic-like rims on bowls and inlays into wood.

Jesmonite is available from a well-known online shop and costs £32.93 for a 3.5kg kit (readers outside the UK will need to find a local supplier from the manufacturer's website). It comes in a large tub with a separate bottle of liquid. The two are mixed in a ratio of 2.5/1 powder to liquid by weight and can be coloured with a variety of agents, including acrylic paint, alcohol inks, and bespoke pigments from the manufacturer. Undoubtedly the manufacturer's pigments are the most effective, but a starter pack of three primary colours plus black costs around £55 and, as I was at a trial stage, I opted to use acrylic paint, which seems to have worked reasonably well.

My video showing the process in action is available here...
<https://www.youtube.com/watch?v=7JKpYWtwVp0&t=2650s>

The manufacturer's website is: jesmonite.com.

Plans & equipment

Tools & equipment

- PPE & RPE as appropriate
- Mixing vessels (I used cardboard coffee mugs)
- Stirring sticks
- Scales to weigh the ingredients
- A straw to help blow out bubbles after the mixture is poured into the mould
- Disks of MDF to make the mould
- I also built a vibrating table to help shake bubbles out of the Jesmonite before it set (more of that later)

The making

1 Jesmonite as supplied.

2 The first step in the process is to assemble all the kit you will need to make a mould and to mix the Jesmonite.

3 You need to decide how to make a mould for the Jesmonite, and I quickly decided to adapt the method I use to cast pewter to make rims and feet for wooden bowls (see *Woodturning 337-339*). This involves cutting a channel in an MDF faceplate into which the Jesmonite mixture can be poured. I decided to do this by using a 12mm-thick MDF backing plate with an 8mm disk screwed to it. I did this for two reasons: the 18mm MDF gives the mould rigidity when turning the Jesmonite, and the 11mm MDF is then used as a sacrificial mould and will be turned away after the Jesmonite rim had been glued to the bowl. Using 11mm MDF meant less material to be turned away and therefore less dust in the workshop.

4 Two-piece MDF mould ready to cut a channel for the Jesmonite. The 18mm MDF has a 6mm wide recess turned on the back so that it will fit over my O'Donnell jaws.



1



2



3



4

Tips and hints

- Be accurate when you weigh out the powder and the liquid but it does pay to use a very little extra of the liquid to help the mixture to flow well.
- A drop of washing-up liquid in the mixture helps to reduce surface tension and this in turn makes it easier to 'chase' the bubbles out of the mixture.
- Pour the Jesmonite into the mould as soon as you are able – do not let it sit around and start to set.
- Use TCT tools when working the Jesmonite if you can. The Jesmonite peels away easily if you do this, but if you have to use HSS tools, be prepared to make frequent visits to the grinder.
- There are lots of videos on YouTube that will help you to mix colours and create a range of effects.
- Pour any excess Jesmonite on to a polythene sheet and spread it out thinly. When it sets you can break this up and use it to create other effects with Jesmonite – see the next article in this series.
- Jesmonite AC100 is not waterproof.
- Jesmonite adheres very well to wood, it is almost as if the liquid is PVA adhesive.

◀ **5** For this test run, I decided to use a very dry, pre-turned yew bowl that had a major fault on the rim and that I was going to discard as unusable. The advantage of adding a new rim is that the Jesmonite will cover the fault and make an otherwise unusable blank a saleable item. It is important that whatever wood you use, it should be very dry and very stable because I suspect that Jesmonite, once set, is not flexible enough to resist any movement in the wood after the bowl has been completed.



6 The next step in the process is to turn the blank to a shape that will be ready to accept a Jesmonite rim. This image shows the almost finished bowl where I am turning a tenon on the rim to accept a groove that will be cut into the Jesmonite rim after the moulded Jesmonite has set.

7 The next step is to remove the bowl from the lathe – taking care to mark it so you can put it back in exactly the same position in the jaws – and measure the outside diameter of the tenon you created on the rim. This will be the same measurement for the outside diameter of the groove to be cut into the mould with the addition of 2mm to ensure that the rim will be larger than the bowl.

8 The MDF faceplate mould is then mounted on the lathe, the outside diameter marked off and a groove cut for the rim and the foot. The diameter of the foot is not critical at this stage, it just has to be in keeping with the overall diameter of the bowl (i.e. not too large and not too small). The bowl is fitted into the mould to check that the sizes are correct. To help minimise potential absorption of moisture from the Jesmonite, I have also given it a couple of coats of cellulose sanding sealer before removing it from the lathe.

9 The next step is to prepare the Jesmonite. First, weigh out an appropriate amount of powder – for this project I used 100g of powder and 40g of liquid. Mix this up well to ensure there are no lumps and separate out a small amount for colouring. I put around 30ml of the Jesmonite mixture into a small cup to which I have added a small amount of red acrylic paint (about 3mm squeezed from a tube).

This red mixture is then gently poured into white Jesmonite and stirred with no more than two or three strokes to swirl the red into the white to give a marbled effect. It is important that you do not over-stir this mixture or all you will end up with is pure pink Jesmonite.

Top tip

Removing bubbles from Jesmonite

My initial trials with Jesmonite resulted in a set mixture that had many pinpoint holes in it caused by trapped air bubbles. The classic way to prevent this is to tap the side of a flexible mould to encourage the bubbles to rise to the surface. This is not really possible with a rigid mould so I had to devise my own way of dealing with this.

The first step is tap the beaker firmly several times on the work bench to help dislodge any of the bubbles before pouring and then to tap the moulds again when the Jesmonite has been poured. I thought that it would be a good idea to find a way to vibrate the moulds so I built a small vibrating table for the mould to sit on while the Jesmonite set.

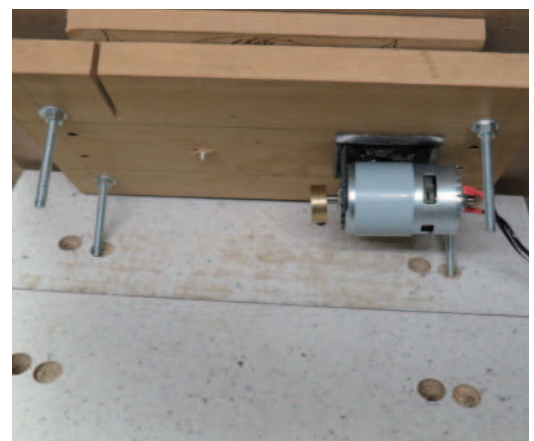
The table sits on four long coach bolts with a small electric motor screwed to the underside of the table. The bolts on the table sit in small recesses drilled in some old kitchen worktop that also has adjustable feet to level the table. The motor has an off-centre weight attached to the drive shaft so that when the motor is switched on the whole table vibrates and the recesses

prevent the table from wandering off the workbench.

The other way to encourage bubbles to break up is to blow on them through a straw (see picture 10).



Vibrating table



Underside of vibrating table



10 Jesmonite in the mould and being blown at through a straw. The two round moulds contain the excess Jesmonite that I did not need and will be used on other projects.

I did use the vibrating table for this project and I left it vibrating for about five minutes to help bring other bubbles to the surface.

The Jesmonite takes around 25 minutes to set and in theory it can be worked at this stage. Despite this, I decided to leave it for a few hours to ensure it would be fully set before I started to turn it.

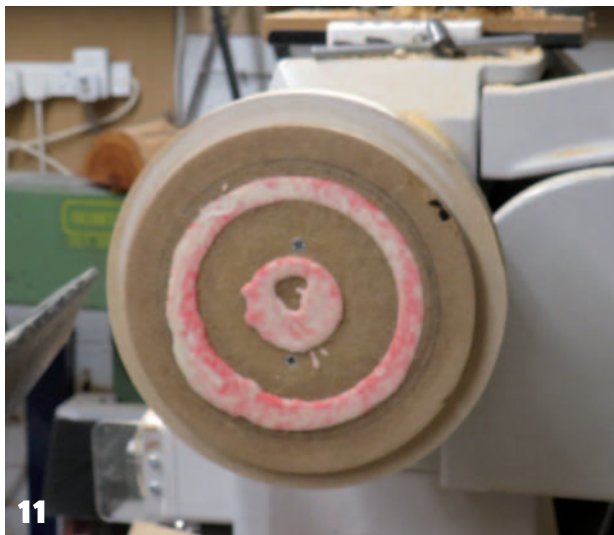
11 Once the Jesmonite had set, I returned the mould to the lathe and cut a channel to fit the tenon on the bowl. When doing this, aim for a tight fit so that the bowl will sit in the Jesmonite without the need for adhesive. The Jesmonite foot is also trimmed at this stage so that there is a clean surface for it to mount to the wooden foot on the bowl.

12 Testing the fit of the bowl on the Jesmonite rim. It was a good fit and held in place by friction alone prior to gluing.

13 Glue the rim of the bowl to the wood and bring up the tailstock to hold it in place. I use Fastgrab adhesive that goes off very quickly and the bowl can be worked in about 20 minutes. You will also need to remove the centre of the mould with the foot on it at this stage, making sure that you do not cut into the Jesmonite before turning away the remaining MDF.

14 The MDF disk with Jesmonite foot parted from the mould.

15 Turning away the redundant MDF leaving the Jesmonite exposed. Now remove all of the remaining MDF and trim any excess glue before turning the Jesmonite to a suitable depth and thickness to match the bowl. I use TCT-tipped tools to do this because Jesmonite is very hard and quickly blunts HSS tools.





16

16 Power sanding the Jesmonite. The final step at this point is to sand and polish the Jesmonite and the inside of the bowl. I started with 120 grit and finished with 600 grit before adding a final polish with 0000 wire wool. (Note: Extreme care needs to be taken when using wire wool on a rotating object. Keep the wire wool tightly wadded.) I then sealed it with a coat of 50% diluted cellulose sanding sealer followed by a coat of beeswax applied by friction.

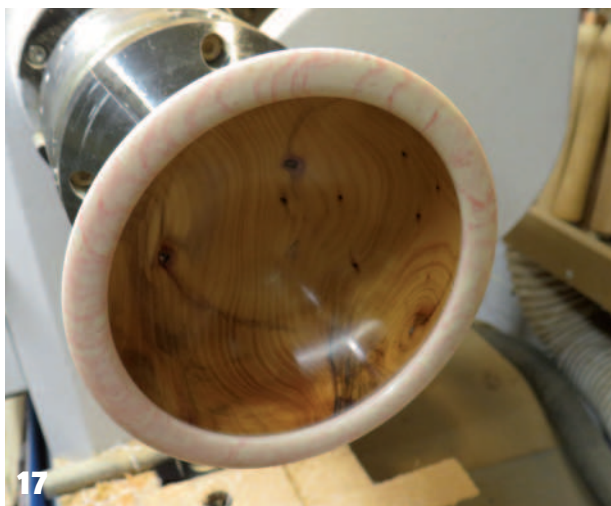
17 The inside and rim of the bowl after sealing and polishing.

18 The next step is to remove the bowl from the lathe and use your favourite method to reverse chuck it so you can work on the foot. For this project, I used a home-built vacuum faceplate.

Once you have it set up, measure the inside of the Jesmonite foot, transfer this to the wood and turn the wooden foot away to fit the small Jesmonite ring. As for the rim, aim for a tight fit and then glue the foot in place and hold the assembly in place with the tailstock until the glue sets. Once the glue has set, turn away the excess MDF leaving the Jesmonite exposed for a final shaping and finishing. Turn away the bottom of the bowl so that it flows into the foot, and sand and polish the foot.

19 The finished bowl ready to be removed from the lathe.

The finished bowl. ●



17



18

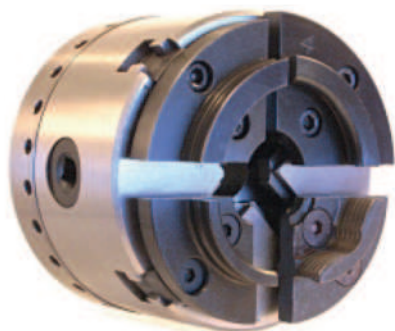


19



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Two Technologies Giving Unequalled Performance

Diary of a professional woodturner – part 16

Richard Findley talks twists, catches, steam trains and web building in his latest diary



As I work through my jobs each month, I make notes and take pictures of things I think might be interesting to add to my diary in the magazine. At the same time, I take pictures and videos to post on my Instagram account and, while there is some overlap, I try to keep enough variation so people who follow both my diary and my posts on Instagram don't get bored of me repeating the same thing. Earlier in the month, something happened that was worthy of mention in both places...

Twisted spindles

I was making two replacement twisted spindles in sapele for a customer. I wouldn't usually use sapele for painted spindles but the originals were some sort of 'mahogany' type wood and the customer wanted to keep to it, so sapele was a good option. I'm careful not to say 'a pair of spindles' because despite them belonging to the same staircase, they were completely different. The spindles on this particular staircase alternate between a ribbon twist and a four-start twist and both have an urn-shaped detail at the base with a twist detail carved into it. I always enjoy the challenge of carving twists to match originals, so I was looking forward to this one. Before the twisting could start though, the spindles needed turning to match the shape of the originals.

Turning and matching spindles is everyday work for me so I had no concerns about doing it. As I was turning the shapes I decided it might make for an interesting video to post on my Instagram account, so I set up my phone on the shelf behind my lathe (the phone sits jammed into a cardboard tube that my abrasive comes rolled around – very low-tech) and started recording. As I turned the urn shape – that would later have a twist carved into it – using my Signature beading and parting tool, I managed to get an impressive catch and caught it all very clearly on film.

Catches

The fact that I got a catch is not particularly noteworthy in itself, because despite what you may have been led to believe by some professional turners, catches do happen from time to time, they just tend to be much less frequent as experience builds up. The fact that I had filmed it so clearly was of interest though, and left me with a bit of a conundrum: should I delete the video and pretend it never happened, which would be the easiest option, or should I post the video and say 'look, it happens to pros too!'

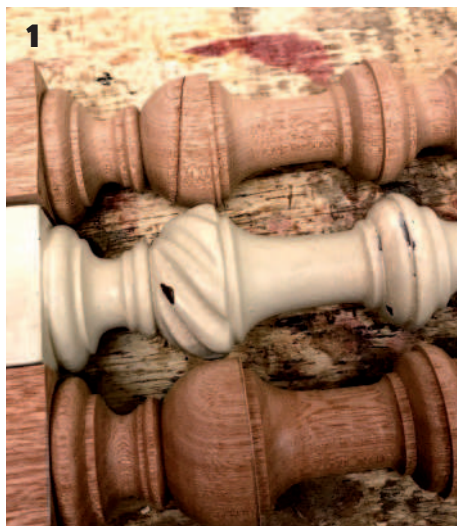
After giving it a little thought I decided to post it. I edited it slightly so it was shown at full speed and then again in slow motion, and added some music to give a little comedy to the situation. The response was surprising to me and overwhelmingly positive, with comments thanking me for my honesty, people saying how seeing it so clearly helped them to understand why some catches happen and from fellow professional turners sympathising and enjoying seeing me get a catch. You can watch the video here: www.instagram.com/p/CgMSRhCjY96/

One of the main reasons I post on Instagram is to help people with their turning, so the fact that my mishap had helped so many people, either to understand some of the hows and whys of catches or just to reassure them that everyone gets catches sometimes, really made my day and flipped a negative into a positive.

Twisting

The catch was quite a big one and as the detail was a feature part of the spindle I couldn't turn it down or hide it so I had to cut a new piece of timber and start again. Thankfully, I do the turning before the twisting so it wasn't too bad.

With the spindles turned I, set about marking out the twists and cutting them. I have done both ribbon twists (which look a little like a series of coves running around the spindle) and four-start twists (which look more like a series of small beads running around the spindle) before, so was able to get them done without too much trouble. I had never done the little twist detail on the urns before though. It is only when you closely study something that you realise how complex, or in this case simple, a detail really is. At first glance, it appeared to be an intricate detail, but when I looked closer it was just a series of grooves running part way around the urn which were easy to cut once I had them marked out. I was very pleased with the end result.



1 The catch on the spindle



2 The finished twisted spindles alongside the originals

Chestnut Weekender

Over the last weekend of July, I was one of the four main demonstrators at the Chestnut Products Weekender in Swindon. It was an event I had been looking forward to since I'd been booked for it several months before. Since the return to some kind of normality after the pandemic, I have done a lot of club demos, but this was the first seminar/symposium type event I have done since I was in the US in March 2019 for Totally Turning.

These events are always a lot of fun (although I have to stress to my wife that they are 'work events' and absolutely not an excuse to drink beer with friends and talk turning). During the weekend I had a two-hour demo slot, which is the same length as an evening demo to a club, and the demonstrators had an area with a lathe where we could chat to the attendees and show techniques and give pointers or mini demos as requested. As a 'headline act' at a main symposium, it can be as many as six 90-minute demos over two and a half days, so a single demo was lovely and gave me a chance to watch the other demos and get to meet a few people I'd only ever spoken to online.

I think this was the fourth Weekender that Chestnut has organised so it was a very slick set-up, with a stage and professional lighting, cameras and sound, all projected on to several large screens giving the audience a great view of everything being shown. The event was set in a wonderful venue of the steam sheds of the Great Western Railway museum, so we had access to the museum of steam trains

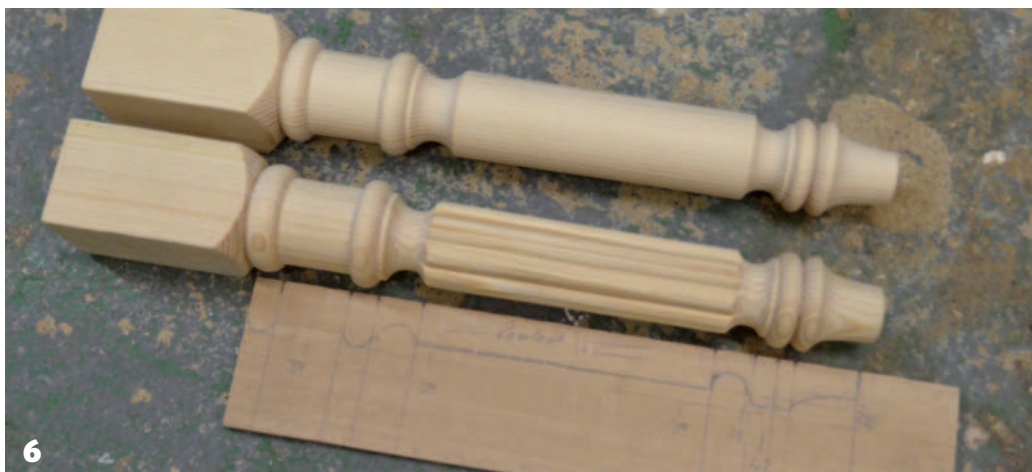
on the Saturday evening before having a meal alongside a large steam locomotive and then being treated to more entertainment, laid on by Terry and the team.

My demo was a small turned table leg with routed reeds running along it. All went well until I came to cut the reeds when I had a little trouble with the in-built indexer on the lathe provided. It may have been me and my unfamiliarity with the machine, although many people spoke to me afterwards and said they have the same lathe and can't get on with the indexer either. While I struggled to line up the indexer to allow me to cut the reeds exactly where I wanted them, I had lots of banter with the lively audience and there was a lot of laughter and barracking which everyone, including myself, thoroughly enjoyed. As you will have read in my previous diary articles, sometimes things in demos don't go entirely to plan but, rather than panic, I have learned to just go with it and turn it into a learning opportunity, or at least an entertaining part of the demo if nothing else.

By the end of the demo, I had a leg with slightly uneven reeds cut along it and a happy audience. I wrapped it up by turning another leg at something close to production speed. When demonstrating it takes me an hour to turn a leg as I go into detail about cutting beads and coves and using skew chisels properly. I turned the leg against the clock and did it in a little over five minutes, which was warmly received by the audience.



PHOTOGRAPHS 3 & 4 BY NATHAN SAVORY



PHOTOGRAPHS BY RICHARD FINDLEY

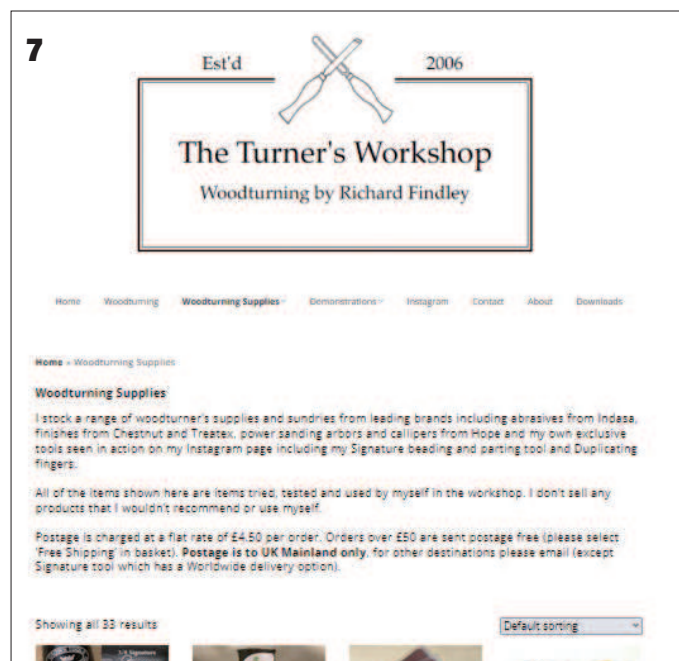
3 Demonstrating at the Chestnut Weekender **4** The evening meal alongside the locomotive
5 One of the other steam engines on display at Steam **6** The leg I turned at the demo, showing the uneven reeds

Website

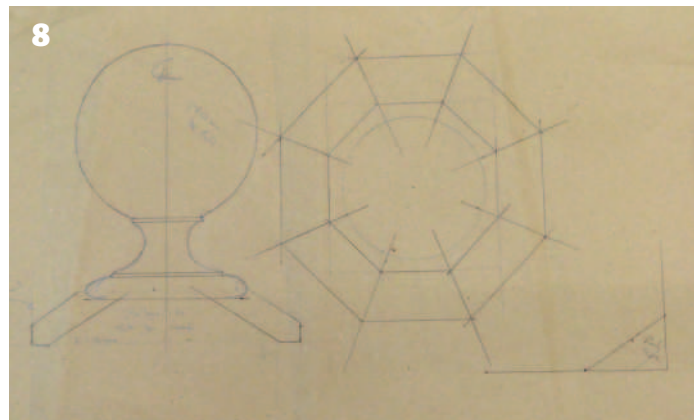
During the month I finally got a chance to work on my website, something I've needed to do for too long. The website itself is fine but the shop page needed a bit of work. First the prices needed updating because, as we're all too aware at the moment, the price of everything seems to be increasing dramatically and the items I sell through my website are no different. The problem was that the technology behind the shop part of the site was a little outdated and needed an overhaul, so I set about learning some new web-building skills.

I first built my website back in 2006 to advertise my business. I bought a book, downloaded the recommended free software and went from there. Soon after I added a shop page to sell a few basic woodturning supplies, but in those days I simply had the products listed with a description and a picture and asked people to email me an order, I would then send a PayPal invoice, they would pay and I would send out the goods. It worked but I can imagine the slightly long-winded process may have put off a few potential customers. I then learned to add 'PayPal buttons' to the site that allowed people to order with a click of the button. This worked well for several years but it was always a bit of a fiddle to make them appear exactly how and where I wanted on-screen, and changing prices was always an unnecessarily drawn-out process and part of the reason I had put it off for so long. I had become aware that these buttons weren't as slick as some websites I've seen and used and, more recently, it seemed they were not being supported any longer by PayPal, so it was time for a change.

I have always built my own websites but I am no webmaster and I have always just used the best free technology I could get hold of. But I am aware that I am certainly not on the cutting edge of web building, in fact, I am probably well behind the curve. It was only at the start of 2020 that I moved over to using WordPress due to my old software becoming essentially obsolete. WordPress makes web building much easier with its range of themes and plug-ins that increase what you can do with your site without the need to learn complex coding, including adding something called WooCommerce, which is free (always my favourite price!). With a gentle learning curve that included watching several YouTube videos and Googling 'how do I...' even more times, I was able to make the shop page of my site far more modern-looking and hopefully the ordering process easier for customers. Going forward it will also be easier to adjust prices as and when I get those dreaded emails from suppliers apologising for the huge increase in prices.



7 The new 'woodturning supplies' shop page on my website is much more professional than before



8 Full-sized drawing of the finial

Summerhouse finial

Recently, I have had a lot of enquiries about summerhouse finials. Unfortunately, with my current workload and lead time, it will be autumn or even winter before I could get most made, so not many of the enquiries have turned into jobs. This month I made one for a very patient customer.

The customer had an octagonal summerhouse with a roof coming up to an apex. She was keen to have an octagonal base so that it would sit as neatly as possible on top of the roof with no gaps. She gave me the angle of the roof and I offered to draw out a full-sized diagram of the finial and its base to show how it would all go together. I quoted to use laminated sapele, which paints well and has good natural resistance to the elements. She approved the drawing and the quotation so I could make a start.

The ball itself was laminated from four pieces of sapele to achieve the 170mm diameter. I made the base as an octagonal 'ring', much like I would for a segmented piece. Having drawn it out full-sized I could take my dimensions from the drawing.

Inside the octagonal base is a large chamfer, as shown on the drawing, so it will sit on the summerhouse roof. I cut the angle on the timber before cutting each of the eight segments using the sliding table of my circular saw bench. I lined them up in two groups of four and applied



9 The finished summerhouse finial

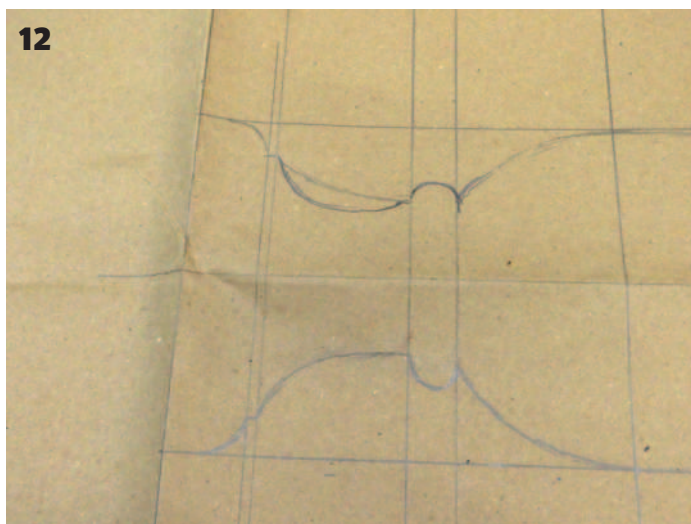
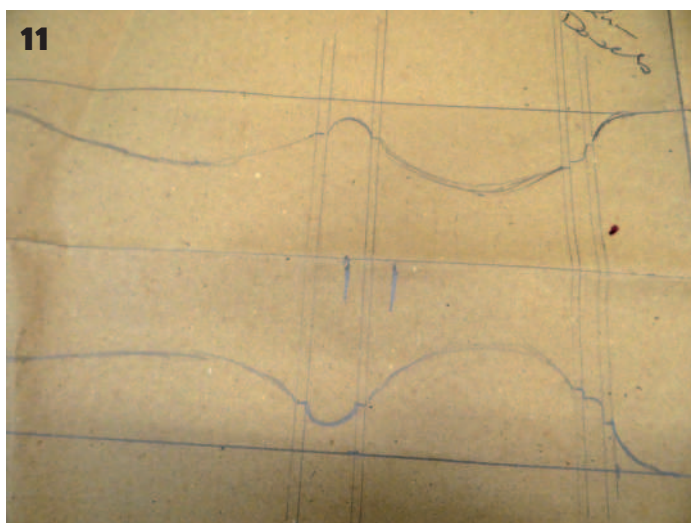
◀ masking tape to the outside to act as a hinge as I closed the sections together with glue applied to each joint and taped them in place overnight. Once the glue was dry, I trimmed the meeting faces of the two halves of the octagon and glued them together with more tape. The following day, the result was an octagonal block with a central hole and angled internal walls. I then tilted the blade on the saw and carefully trimmed the chamfer on the outer faces of the octagonal base. I ran a sharp plane and some sandpaper over it all and the base was finished. The turned ball finial sat on top of the base and was screwed in place from beneath to hold it in. The holes in the base were slightly enlarged to allow for any movement but, being segmented like this, I wouldn't expect much movement and with no end grain showing on the base and the angle cut to allow rainwater to run away, I hope it should last for many years.

Column legs

I was approached by a local joinery company that had a commission to make a dining table. This table would need a pair of columns to form pedestal legs at each end, rather than the traditional four-legged table. The columns were 550mm long and 150mm in diameter. 150mm diameter is always a difficult size as 50mm is a standard timber thickness, but by the time it is planed down laminated, the three layers will only be around 140mm. Some customers are fine with this, others demand 150mm, so I have to use thicker and more expensive timber or more layers to achieve the size. This customer was happy with the 140mm and supplied a drawing with the brief of 'make it something like this', which I always like because it means there is a little room for artistic licence on my part.

“
It is very satisfying to send out into the world a finished turning that you are fully satisfied with
”

I prepared the timber, glued it up in the press and set to work drawing out the column full-size on brown craft paper to work out the positions of some of the details. I find this incredibly useful as designing on the lathe generally leaves me wishing I had moved this part up, that part down or left that part a slightly larger diameter. Once drawn, I decided the necklace bead that sits about a quarter of the way down should be just a bit higher than I had sketched it, so I could move it when I turned the column. I was also a little unsure about the lower cove type detail. On the drawing it wasn't a cove, just a curve from one fillet to the next and it looked okay on paper, but as I was turning I didn't feel it had enough shape to it. So because of the flexibility given by the customer, I decided to make it into a proper cove and I was much happier with how the shape flowed. I doubt the customer even noticed the change that I had made, and probably wouldn't have cared either way, but I was happier with this design and it is very satisfying to send out into the world a finished turning that you are fully satisfied with, rather than thinking 'I wish I could change X, Y or Z'.



10 The finished oak column pedestal legs **11** The drawing, showing how I moved the necklace bead a little higher
12 The change to the cove at the base of the column on the drawing



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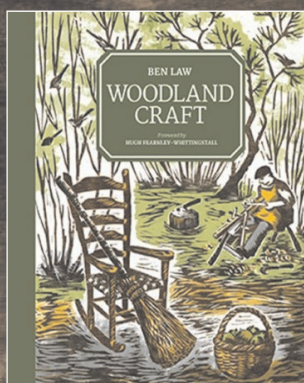


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Community news

What have you been turning? Please email your images to WTEditorial@thegmcgroup.com

Axminster Tools celebrates 50 years of trading

Axminster Tools began life 50 years ago in the rural market town of Axminster in East Devon. In an age before computers, when virtually all jobs were done manually, two sons joined their father and together they opened a high street shop.

The early years were hard; the hours were long and at times it was difficult to make ends meet. A passion for great craftsmanship and a job well done got them through and, before long, the family business earned a reputation as a trusted tool shop run by friendly and knowledgeable experts, with a service second to none.

There have been many milestones over the years but the decision to move into mail-order tools is one of the largest contributing factors in taking Axminster Tools from a small high street shop to the global retailer it is today. Nevertheless, the eight Axminster Tools stores remain at the heart of the company, offering support and inspiration to the creative community.



Much has changed since 1972, but the company roots remain firmly embedded in a passion for woodworking, a sense of family belonging and a set of values that ensure it always put the customer first. In recent years Axminster Tools has invested heavily in its future, manufacturing an increasing number of own-branded products in its Devon based manufacturing facility.

Alan Styles, managing director of Axminster Tools said:

'As we celebrate our past, it's important to look to the future. We do what we do to support a sustainable future for Axminster Tools, for the prosperity of our staff and the communities we support and engage with. My family taught us the value of hard work and never giving up on your goals. We too will work hard to live up to the high standards set over the past 50 years. When you work together anything is possible and together we will continue to grow our woodworking community; so we all have a place to share our passion.'

If you're interested to know more about the story behind one of the nation's favourite tools shops, go to axminstertools.com and click through to the blog for the Axminster Tools story.



1 Helping hands at the Axminster Tools show stand

2 The original shop front in the small market town of Axminster in Devon

3 Axminster Professional AP508WL Woodturning Lathe

BRIDGING THE GAP – 2022 AAW MEMBER EXHIBITION

The theme for the AAW's 2022 member exhibition is **Bridging the Gap: The Craft and Art of Woodturning**. Twenty-seven artists from four countries and 16 states had their work showcased at the AAW Symposium in Chattanooga, June 23-26, and the show will be on view at the AAW Gallery of Wood Art in Saint Paul, Minnesota, 4 September to 28 December, 2022.

Bridging the Gap is an all-juried show with no invited artists, and entries were judged without identifying information. The three-member panel consisted of artist Max Brosi, Ireland; collector Jonathon Cuff, U.K.; and artist and professor of woodworking Karen Ernst, U.S., who separately considered 120 submissions individually for the first round, then met online to determine the final selections. The fruit of their labour is an exhibition that spans many aspects of contemporary turning, from a classic footed walnut bowl to a funky collaborative assemblage.

Reflecting the increasing number of women entering this once primarily male field, this year's show set a new member exhibition record: 35% of the works are by women turners, a significant increase from past years.

Two prizes were awarded at the AAW Symposium in Chattanooga: Master's Choice, \$300, went to Ena Dubnoff (17), and People's Choice, \$200, went to Andi Wolfe (22). Congratulations to all of the artists selected for this show.

1 Elizabeth Weber, *Rocky*, wood, graphite, acrylic paint, varnish, 3 1/4 in x 5 1/2 in (8 cm x 14 cm): This piece is an abstract representation of karst topography I encountered when I lived in East Tennessee. During my time studying and working in civil engineering there, locating these features was important in construction, where and how you could develop, where you could not. Bridging the gap between human enterprise and nature is essential in everything we do.

2 Tom Hale, *Septoid II*, maple, acrylic paint, 4 1/2 x 11 in x 3 1/2 in (11 cm x 28 cm x 9 cm): Thematically, this piece has a personal reason as to how it is 'bridging the gap'. As with so many others, my life has been radically altered over the past two years by the pandemic. Two years ago, I was over-the-moon ecstatic about having a piece accepted into the AAW's POP exhibit. But then the AAW Symposium was cancelled, and life as we knew it seemed cancelled. The disappointment of the cancellation, in combination with so many other new limitations, threw me into an extended creative funk. It has only been over these past few months that I have fought my way back to a new normal.

3 Cory White, *Expansion*, orange wood, 6 1/2 in x 11 1/2 in x 6 1/2 in (17 cm x 29 cm x 17 cm): A tree bears the weight of massive branches, and with proper soil, irrigation, and nutrients, there are no limits to how far those branches may spread. Woodturning branches from young and old, male and female, craftsmen and artists. This environment encourages us to blossom and grow. Bridging the gap is about embracing the innovative change that is already in motion, and when craft and art no longer exist in isolation, there are no limits to how far our branches may spread. Grounded first in

tradition as a vase, then springing forth as a flower, this piece symbolises the connection between craft and art, from the predictable to the enchanted.

4 Jerry Prosis, *The Gravity of Bubbles*, monkey pod, cream gilt, 9 1/2 in x 10 1/2 in (24 cm x 27 cm): To most, a bridge conjures a thought of water. To some, water conjures a thought of bubbles. Bubbles are the free-flowing centerpiece of this series. In contemplating the general shape and size of bubbles, there is a realisation that the size of a bubble is directly related to where it is on its journey. Is it just starting out or is it about to pop? Can it move without obstruction, or is something in its way? Is it still under water, or is it in the air? The gravity of that bubble definitely relies on these questions. For me, this theme was a study in creative randomness.

5 Heather Marusiak, *Captive Goblet*, cherry, 2 1/2 in x 10 in x 2 1/2 in (6 cm x 25 cm x 6 cm): The confluence of craft and art is illustrated in a playfully subversive manner, whereby the object's perceived function is undermined by its form. For better or worse, the traditional goblet is, ironically, freed of its utilitarian purpose by the carved unbroken chain. In woodturning, one may feel bound by the confines of their own technical skill, bound by the confines of the lathe, bound by the idea that an object must be functional, or a vessel, or made from a single piece of wood. How do we expand beyond these confines, break these chains?

6 Phill Sikes, *Black Walnut Bowl no. 2201*, black walnut, 4 in x 9 1/4 in (10 cm x 23 cm): The idea of 'bridging the gap' challenged me to look at my work and see how it has evolved over time. Each piece is



an iterative change and step forward into new ideas about process and shape. This piece represents that growth in my work. It's a simple but intentional vessel with a carefully considered form and subtle details. In the broader context of my work, it represents the shift in my design aesthetic from simple utilitarian bowls to more refined vessels with appealing forms.

7 Donna Zils Banfield, *Wood Folkkes: a Community*, maple, cherry, basswood; acrylic paint, lacquer, 4½in × 4½in × 3in (11cm × 11cm × 8cm): We are formed and drawn together by our sameness, but different as a result of our experiences. We have different moods, personalities, wardrobes, loves, and hates. Yet, we are all created from the same core. (The small, yellow/green egg? That's Newling. Where did you think Wood Folkkes came from?)

8 Betty Scarpino, *Woven with the Wind*, hackberry, fibre paper, 9in × 7½in × 7in (23cm × 19cm × 18cm): Layers of fibrous paper, woven and adhered to the inside of a turned-and-carved vessel, reference wood as the origins of paper. The openness of the vessel reveals inked messages of inner strength.

9 Mark Jundanian, *My Scars Are Me*, unknown woods, 4½in × 9in (11cm × 23cm): Initially, I worried that this wood's defects would yield a rough and frail piece that might not take the form I had envisioned. On further reflection, I realised these 'defects' were more than visual interest, they were in fact what made the wood,

its substance, what composed it. Just like you and me, it is the sum of its scars, the slings and arrows endured that are the niduses of our creation. This piece bridges the gap between the before and the now. We would not be, without our scars.

10 Joshua Salesin, *Ornamental Wand*, imitation ivory (Resin-IvoryTM), ¾in × 11in × ¾in (19mm × 28cm × 19mm): Ornamental Wand was created entirely on a 186-year-old Holtzapffel lathe. Ornamental turning has a fascinating history, and I enjoy bridging the gap using tools and techniques of the past to fashion contemporary designs that capture the imagination.

11 Michael Gibson, *Caught in a Whirlwind*, 2021, pear, pyrography, airbrushed acrylic paint, 5½in × 6in (14cm × 15cm): To make this piece, I turned a thin vase, cut the body into leaves, textured, pyrographed, and painted each one. I then glued them together to form this whimsical group of leaves to appear they had been caught in a whirlwind. I bridged the gap taking the piece from a functional turning into a whimsical piece.

12 Cheryl Lewis and Greg Gallegos, *Bees and Trees: a collaboration*, black oak, beeswax, tree sap, pigment, 5½in × 7in (14cm × 18cm): Our survival depends upon nature thriving. Without the pollinating gift of bees and the life-giving oxygen and carbon dioxide-cleansing of trees, we could not exist. This piece pays homage to those contributions with an ancient form of art: fused-wax painting on a wooden substrate.

13 Karl Hansen, *Too Many Choices*, hard maple, India ink, 2½in × 10in (6cm × 25cm): Ancient societies have always intrigued me. Even though it was a daily struggle just to survive, the people of those civilisations still felt it important to record their lives through art. Baskets, vessels, pottery all painstakingly created, not just to serve their needs but also to make a statement about their lives. Taking inspiration from those ancient societies to create my basket-illusion pieces bridges that gap for me.

14 Michael Hosaluk, *Nurture*, Bronze, 4in × 6in × 6in (10cm × 15cm × 15cm): I have made this style of turned object for the past 20 years. Experiencing bronze casting for other work made me realise that these forms would read stronger in this material. Turned sculptural forms were made in order to form a mould for casting in bronze. This process took woodturning into a new realm that bridged the gap between material and form.

15 John Jordan, *Maple Burl Vessel*, sugar maple burl, 10½in × 11in (27cm × 28cm): This piece bridges the gap between health and wellness and was turned several years ago while I was having health issues. Two-and-a-half years ago, just as Covid 19 was taking hold, I had a liver transplant. This was the first major piece I worked on during my recovery, and exhibiting it now completes the bridging of the gap. My thanks go to my friend Chris Ramsey, who has given me more than a few great pieces of wood over the years, and this was no exception.





16 Linda Ferber, Sally Ault, Janice Levi, *Some Assembly Required*, mixed media, 12in × 25in × 25in (30cm × 64cm × 64cm): A child's toy. What is its purpose? Simply to help children bridge the gap between childhood and adulthood. Or is that gap blurred? Does a toy challenge the child within us all? Just as all people, child or adult, are different, so are the elements of this piece. Just as people interact with others in different ways, the rings of this 'toy' can be rearranged in many ways – using the various elements to create new looks, new directions, new results. Is it craft or is it art? It's both – The Craft and Art of Turning/Learning.

17 Ena Dubnoff, *A World Divided*, ash, maple, ebony, holly, rosewood, redheart, African blackwood, walnut, padauk, 4in × 6in (10cm × 15cm): In a divided world, bridging the gap is essential to our survival. We're all on this small planet together, facing catastrophic challenges. We all come from the same source – we are family. Let's bridge the gap.

18 Sorin Manesa-Burliou, *Game of Tops*, wood, acrylic paint, 4 $\frac{1}{4}$ in × 7in (11cm × 18cm): When somebody buys one of my tops, there is an immediate connection between the two of us. With this interactive piece, the new owner can choose which top to spin. I imagine them watching as the top winds its way around and slowly falls into rest, then doing it again and again, getting better each time. It is the bridge between them and me at my lathe. I spin the top on the lathe, and they spin it with their hand, and both of us get a little better every time we do it.



19 Matthew Shewchuk, *Family*, maple, magnets, 3in × 7in × 3in (8cm × 18cm × 8cm): This piece was turned on the lathe as one piece, carved carefully, and delicately sanded by hand to its final form. Then it was fortuitously dropped on a concrete floor. Having broken at its most delicate point, it was concealed for years. Recently, a friend found it stored away and simultaneously inspired its new form. That friend also has a 'broken' relationship with a family member; they haven't spoken in years. Broken but still connected, one balancing on the other, waiting to bridge the gap.

20/21 Dewey Garrett, *Recursion*, birch plywood, 4in × 5in × 4in (10cm × 13cm × 10cm): This form was created by combining plywood layers cut on my home-built ornamental turning lathe using tool motions based on those of a traditional rose engine. Each original layer is cut to make a set of multiple concentric geometric patterns based on a simple rosette design. The individual layers are separated and reassembled to make a group of nested forms.

22 Andi Wolfe, *Ambrosia*, ambrosia maple, glass, 8 $\frac{1}{2}$ in × 11in × 10 $\frac{3}{4}$ in (22cm × 28cm × 27cm): I've recently been exploring mixed media pieces to combine my carved woodturnings with glass blowing and hot-glass sculpting. My primary motivation for learning how to work with glass was to be able to make the stands for my carved leaf sculptures. Glass has a long history in the contemporary craft arts, whereas woodturning as an art form is more recent. My explorations in combining these media serve as a bridge to a better appreciation of fine art in wood and glass.



23 Ryan Butler, *Mulberry Burl Bowl*, mulberry burl, acrylic paint, Danish oil, 7in × 10in (18cm × 25cm): In making my wood art, I nearly exclusively use blanks with natural edges, hollows, and irregular surfaces. By doing so, I like to think that my pieces are bridging the gap between the wood in its pure, raw, organic form and pieces that are fully crafted with none of these remaining. This bowl is crafted from rescued wood from a downed tree. The tree was covered in small burls. I oriented the blank to create an undulating natural edge, which leaves a remnant of the very nature of the tree intact.

24 Bruce Trojan, *Still Life – The Old Barn Window*, construction pine, basswood, maple, polycarbonate, acrylic paint, 17 $\frac{1}{2}$ in × 21in × 7in (44cm × 53cm × 18cm): There have been many still-life paintings created by the world's greatest artists throughout history, but to my knowledge, no woodturner has created a still life. In its own way, this piece is bridging the gap between craft and art. It has been extremely pleasurable to create a still life in 3D. Everything except the window is made of wood, and the project was truly a challenge. In my estimation, this is a unique and out-of-the-ordinary piece that bridges the gap.

For more, visit galleryofwoodart.org or email Tib Shaw at tib@woodturner.org, and for more information about the American Association of Woodturners (AAW), including benefits of membership, access to American Woodturner and Woodturning FUNDamentals, visit woodturner.org.



Replicating Grandad's chair

Over 50 years ago, my wife's grandad made a kid's chair for one of his grandsons. Over the years, the chair was painted purple, then pink, and saw a lot of use. It stood up well, and we acquired the chair in about 2017.

In 2015, we had been blessed with two grandsons. I decided that the chair should go to them – but I realised I had to consider replicating it so that they each had one.

In 2018 I stripped the original chair back to the wood.

The only two right-angles in the whole chair were where the joints of the two

front legs passed through the seat... (as viewed from the side) – but, as viewed from the front, they splayed out at the bottom.

The back legs were curved and not parallel with each other, and they also served as the back-rest of the chair, being joined at the top by a curved back-support. The chair also had 'bum-dents', for comfort, so with all that considered I knew that (for me) it would be a challenge to replicate it.

In my replication, I used a mix of purchased timber and that which I had to hand.

The seat is just a piece of pine. It was intended to be from a piece of iroko that I'd bought, but on later inspection I saw that the iroko was warped and unsuitable. The front legs and all bracing dowels are oak, the curved back legs are sycamore and the curved back-rest is beech.

Obviously, as a turner, I turned all circular-section pieces myself.

In this project there were some quite complex joints required, and that brought me to a greater realisation of Grandad's abilities....

Thanks, Adam Shoning



1 Bill's replica on the left **2** Replica front leg **3** Left to right; grandsons Max & Sam **4** Bill's new pieces **5** Checking the new turned pieces with the original

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The 'Harrogate Show' really is a great day out for all! The dates for this year's event are 11-13 November. Following a three-year hiatus, we look forward to welcoming you back to Hall 1 of the Great Yorkshire Showground!

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Torn loyalties

In his latest *Tales from the Headstock*, John Holloway dissects his copy of *Woodturning*

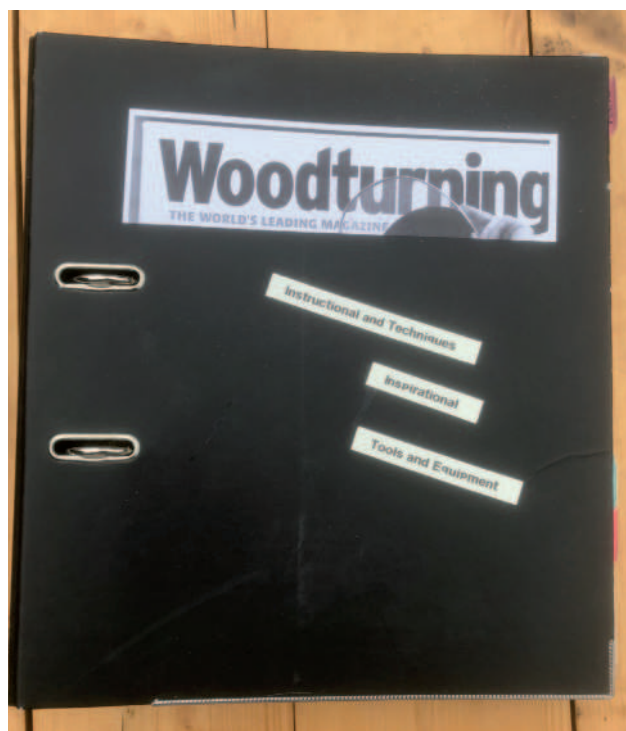
It's one of my most eagerly awaited items of post that drops through the letterbox. I refer, of course, to *Woodturning* magazine – and I can't wait to tear it apart! I'd better explain before you recoil in horror, shout 'heresy!' or something a tad less polite.

Since taking up woodturning as a retirement hobby *Woodturning* has been my go-to bible, mentor, tutor and inspiration, marvelling at the talent of its contributors, learning new techniques and refreshing my knowledge of the basic techniques. 'Get the basics right son,' as my dad used to say, 'and everything else will follow.' Of course, I delve into the addictive YouTube, take advice from turning friends, read books, experiment and so forth but for me *Woodturning* is eclectic; a posh word for saying there's something for everyone, which, for me, is as an intermediate beginner. Some craft magazines I've picked up tend to specialise in high-end products and talent, leaving behind the vast majority of hobbyists who don't have the budget or the experience to work at a professional or semi-professional level.

But *Woodturning* seems to cater for an inclusive bunch of turners, with contributors all willing to share knowledge at every level of the spectrum. I gain much literary support from articles that relate to folks like me who value the hints and tips and instructional

articles, in addition to revealing and showcasing the aspirational level of high-end talent.

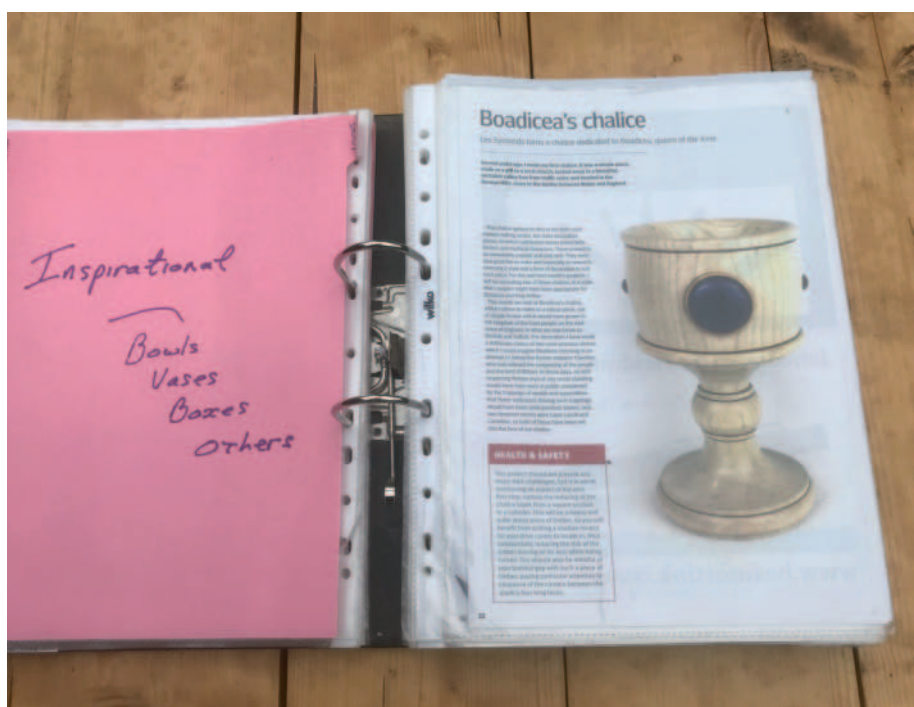
Which is why, when I have read my monthly 'fix', learnt from the experts, gained new ideas and lusted after the advertised tools, I start to forensically dissect my magazine. Okay, let's not beat about the bush, I start to rip it apart. I know there are posh binders in which I can store every edition but I don't have the space or inclination to do so: I need an earthier approach. The joy of *Woodturning* is that I can pick and choose what I want to keep for future reference, so I mentally classify each page or article into three elements – Instructional/Techniques, Inspirational and Tools & Equipment. Using a bog-standard ring binder with divider sheets and punched hole pockets I go through the magazine and remove the articles and adverts that resonate. Instructional/Techniques covers tool use, finishings, sanding, woods etc.,



Inspirational includes anything that catches my eye that I fancy having a go at and is sub-divided into 'bowls', 'vases', 'toys' (vital as a grandad) and 'other'. It's not rocket science, I'm sure other turners deploy similar systems but it works for me. The really fancy, high-end talented stuff I don't usually keep: sorry guys, nothing personal, but I know my practical limitations and will never reach the stratospheric heights that you inhabit. But... if I like the concept and think I can adapt it to a more simplistic level then you are consigned, with thanks, to my Inspirational file. Finally, the Tools & Equipment section is devoted to adverts and companies that I may refer to when replacing my tools of the trade.

I'm well aware that editors, graphic designers, photographers, printers and contributors spend their working lives lovingly putting together the magazine so to rip it apart might seem a little disrespectful, but look upon it as a form of active recycling. Pages I discard are environmentally recycled. Pages I keep are my route map to future enjoyment and improvement.

My monthly challenge is to take my ring binder, close my eyes and open it up at random. What appears is my next project. It's fun, it's challenging and, for me, it keeps the joy of woodturning alive.



Stop and measure

Mark Palma offers some sage advice about discipline when it comes to assessing



PHOTOGRAPHS BY MARK PALMA

I will let you in on a little secret. With the exception of one of the authors in this month's magazine, the rest of us (myself included) make mistakes from time to time when we turn. When I analyse my turning mistakes they fall into a few distinct categories – poor design, becoming distracted, and embarrassingly failing to stop the lathe and measure. This is the mistake I am focusing on today.

Measuring devices

It is hard to blame measuring mistakes on the lack of a device to measure with. There are a multitude of shop-made and commercially manufactured measuring devices available to us as woodturners. Measuring devices either (1) reference off a fixed point of the lathe to estimate wall thickness, or (2) physically measure the work simultaneously on both sides.

A common example of a measuring device that references off the lathe is a laser implement for turning. Many commercially manufactured and shop-made examples exist of these systems. Other examples are jigs that lay on the lathe bed and use a dowel to approximate the bottom of a bowl in a chuck. Again, these are just a few simple examples.

Measuring devices that reference off the work range from a bent coat hanger with a fixed gap to a variety of calliper-style options. They all work on the same principle of touching the work on both sides and providing some visual reference; either a gauge or a gauge.

A simple ruler helps in several ways

A simple straightedge is an inexpensive and valuable measuring tool. Whether it is to see if a base is straight or concave, to make sure there are no flats and you have a continuous curve or to see if a tenon has a square bottom, a straightedge does the job well.



Using your thumb as a depth measuring device

For determining drilling depth do not discount the value of your thumb. Even if your quill has a scale it may not be positioned to be easily read when you drill. Drill part-way down but short of your desired depth. Clean the swarf off the bit. With the lathe off, set the drill tip to the current depth and put your thumb on the quill where it touches the tailstock. Holding your thumb against the quill as you advance the lathe the distance between your thumb and the quill tells you how far your drill has actually advanced into the work.



Proper measuring techniques

Laser jigs (and the computer monitor systems that work on a similar principle) are safe to use with the lathe spinning. Some measuring callipers are designed to be used on spinning work, but not all types are safe to use with the lathe on. My suggestion is that your most accurate measurement is always made with the lathe off.

Callipers are only accurate if the measuring tips are at 90° angles to the work. Make sure the tips of the callipers are rounded over or they may seriously injure you if they grab into the work.

A few minutes of filing and smoothing the tips of callipers are a must for lathe work. For spindle work, keeping the callipers in the correct orientation is straightforward. However, when measuring a bowl, you are trying to measure two opposite sides of a curve. Unless you have the callipers so the tips are exactly across from each other and on the same plane, you will not be measuring the true cross-section of the bowl. If you do not have the tips exactly across from each other you will end up with something called parallax, and the callipers telling you that the bowl is thicker than it actually is. This is a sure way to trick yourself into thinking you have more wood available than you in fact do.



Measure in several locations



Understand how your device works

Tips for better measuring

- 1 Stop the lathe** Even if the callipers can be used with a spinning lathe, the most accurate measurements are taken with the lathe off.
- 2 Use the measuring device correctly** Believe it or not, tools come with instructions. Accurate measurements require understanding what you are really measuring and how to use and read the tool properly. Make sure you have an accurate cross-section between the callipers to avoid the introduction of parallax into the measurement.
- 3 Zero out your measurement tool** Many measurement tools are designed to be 'zeroed out' before you measure with them (remember those instructions). Take the time to perform this step – precision measuring tools work better if properly set.
- 4 Treat them with respect as precision measuring devices work best when not knocked about** Have a dedicated location to keep them close at hand, but safe from the turmoil of the shop environment. If they are bent, straighten them, if broken put a replacement on your birthday or Christmas list.
- 5 Measure a piece you like** If you like how a bowl, plate or vase feels, take some measurements from it. The best way to develop your own frame of reference is to find pieces that please you and see if they work with what you turn. Forget what the 'experts' tell you about wall thickness – make it feel right for your use and turning approach.
- 6 Don't be too arrogant or stubborn to measure** The way to do your best work is to take the time to measure frequently and carefully. You cannot do that if you don't take the time. Even after all the bowls we make we should never be unwilling to stop and make sure we have as much wood under the tool as we think. That adage of 'just one more cut' works a lot better if you actually know how thick the wood really is.



Measure carefully and accurately in several places

Ambrosia maple platter

Mike Stafford highlights the figure of this piece with texture and colour

A number of years ago I attended a woodturning class at John C Campbell Folk School in Brasstown, North Carolina, located in the Great Smoky Mountains. A week there is camp for adults as it offers classes in virtually every art and craft discipline imaginable almost every week of the year.

The class I attended was entitled Platters: Turning, Detailing & Finishing and was being taught by my friend Frank Penta from Chapel Hill, NC. Frank is one of the most enthusiastic supporters and teachers of woodturning I have ever encountered. He is an ideas man and is almost frenetic in his desire to teach how to execute these ideas on your work. If you aren't paying close attention, he will execute one of his ideas on your work while your back is turned.

Frank introduced the class to a seemingly endless array of ways to turn and decorate platters. Each day he would give us breaks from turning, and during that time he would demonstrate techniques for highlighting and decorating our platters. One of the techniques for highlighting an ambrosia maple platter was to judiciously use texture and paint to accentuate the natural figure. During that week most of the people in the class turned four or five platters.

Recently I obtained a few ambrosia maple platter blanks ranging in diameter from 12in to more than 18in. These blanks were all about 2in thick. With these in hand, I thought it was time to find my notes from Frank's class and turn a platter.

Ambrosia maple is not a distinct species of maple, rather it is the result of an infestation of a soft maple tree by the ambrosia beetle. As the insect bores its way through the wood, the ambrosia fungi it carries infects the timber and provides the figure and colouration so prized by woodturners. Most pieces showing ambrosia figure will also exhibit tiny bore holes within the area of discolouration.



Plans & equipment

Tools & equipment

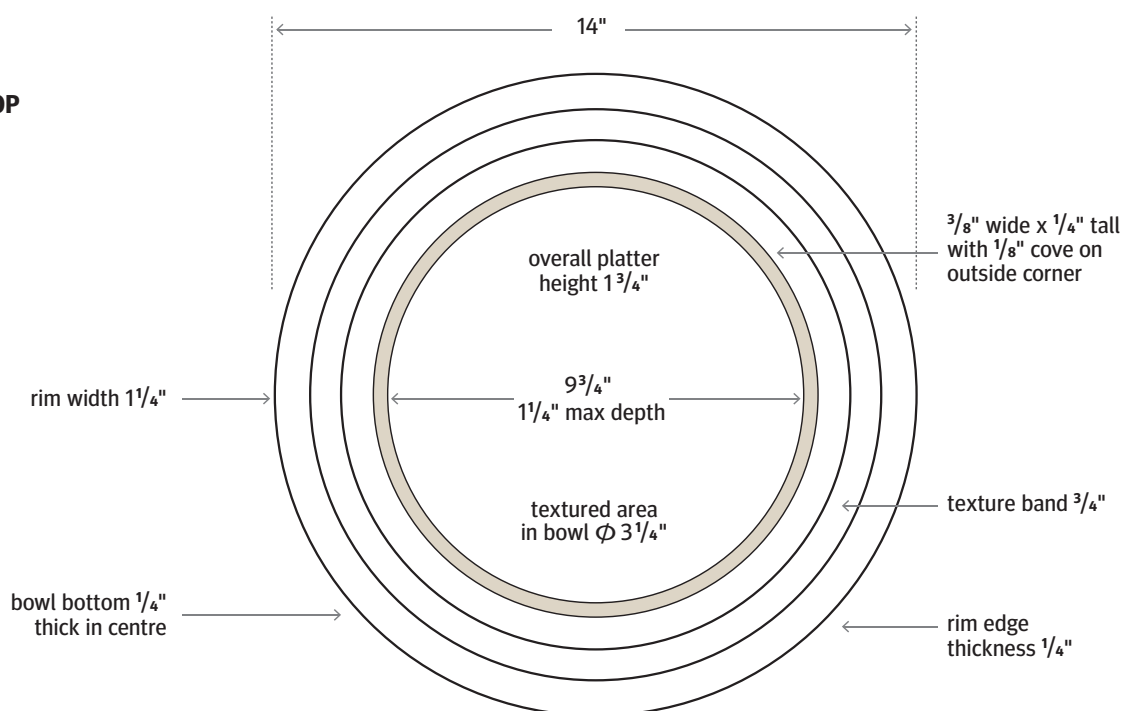
- PPE & RPE as appropriate
- Hunter Hercules
- Hunter small-tapered C hook tool
- Bowl gouges, $\frac{1}{2}$ in and $\frac{3}{8}$ in
- Spindle gouge, $\frac{3}{8}$ in
- Parting tools, $\frac{1}{8}$ in and $\frac{1}{16}$ in thin fluted
- $\frac{1}{2}$ in skew
- Diamond tool

- Electric drill with hook and loop disc holders and assorted hook and loop sanding discs
- Sand-O-Flex contour sanding wheel (drill mounted)
- Texturing tools – Textura tool and Sorby micro spiral texturing tool
- Screw centre faceplate
- Scroll chuck

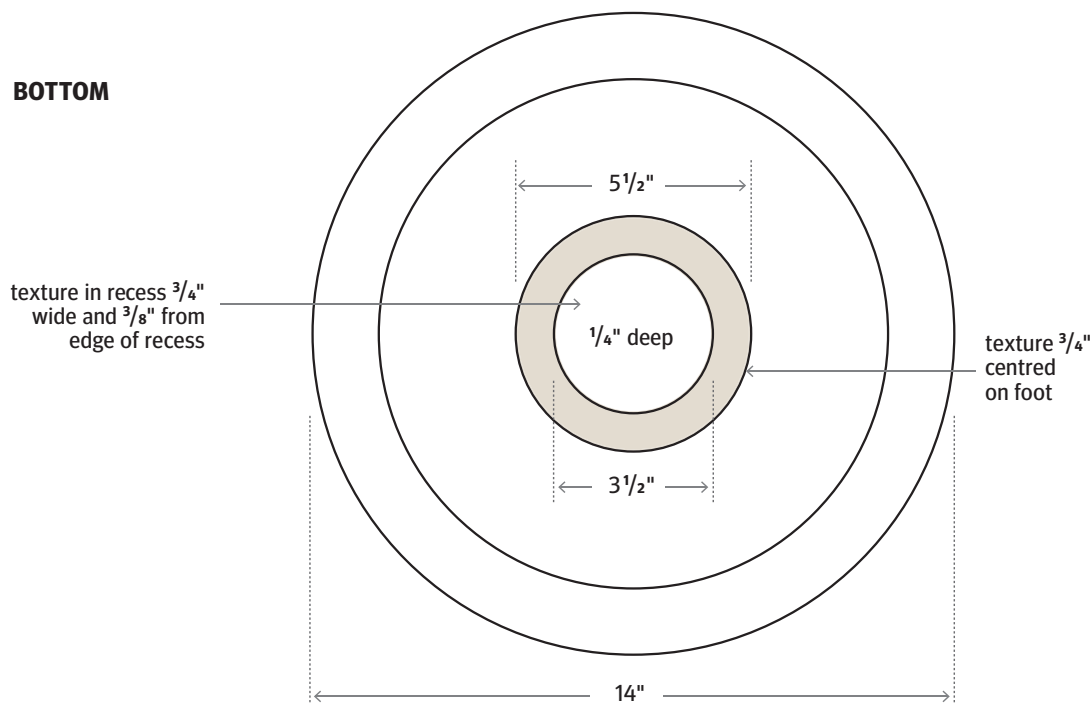
Materials

- 14in diameter x 2in thick ambrosia maple

TOP



BOTTOM



◀ Getting started

1 The first thing I had to do was round up this bone-dry piece of wood. The person from whom I obtained the wood said the blanks had been drying in his shop for more than 10 years, so yes, they were dry. Trust me, beneath all that dirt and grime is some prized ambrosia maple figure.

2 I mounted the blank on a screw centre faceplate. There was a bit of a waney edge on the blank, visible at the bottom in the image. I mounted it so the area where the wood still had some roundness from the tree remaining would become the bottom of the blank. Between rounding up the blank and shaping the bottom of the platter, the waney edge would disappear.

3 I brought up the tailstock for support and started the process of rounding up and flattening the somewhat out-of-round and warped blank. Rounding up the bone-dry, hard and brittle blank proved to be a challenge. I was getting bounce when using a bowl gouge so I switched to the Hunter Hercules tool. Its thick, heavy shaft and carbide cutter made quick work of truing the outside of the blank and left a very smooth finish.

4 With the outside edge trued I could now move on to what would become the bottom of the platter. This was rough and slightly warped in addition to being hard, brittle and dry. I used a bowl gouge to clean up the face. I left the nub in the centre as I had a need for the centre point left by the live centre.

5 With the bottom of the blank mostly flattened, I moved the tailstock and live centre away from the blank so I could have access to the hole left by the live centre's point. I used the hole to locate a compass to lay out the diameter of the recess for the chuck. I planned on using heavy Nova bowl jaws which require a recess a minimum of 3in diameter. I decided to make the recess 3½in. I wanted the foot of the platter to be a minimum of 5½in, or roughly 40% of the platter's diameter. The 1in space between the edge of the foot and the edge of the recess would be plenty for the decorative techniques I wanted to use.

6 With those measurements laid out, I could now begin turning the recess for the chuck jaws. I started with a bowl gouge to remove most of the waste. The recess was to be ¼in deep. With most of the waste removed, I then used a parting tool to establish a square shoulder of the proper depth for the recess.

7 The last step for the recess was to dovetail the sides slightly to ensure a good hold by the chuck jaws in expansion mode. This was accomplished with a skew chisel as a negative rake scraper.



1



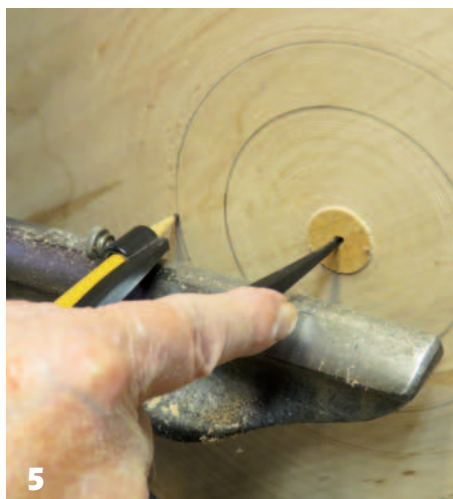
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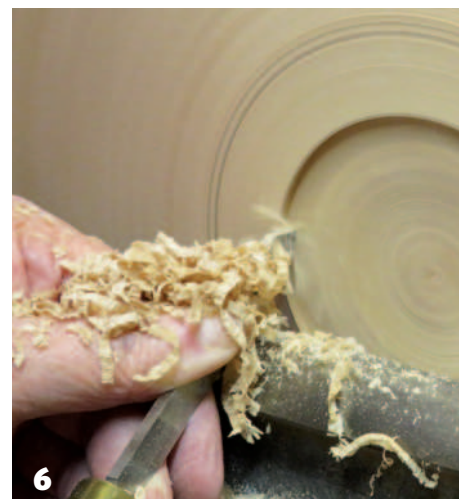
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5



6



7

Turning the bottom of the platter

8 Turning a platter is very straightforward. I wanted the foot to elevate the platter about $\frac{1}{4}$ in. I started the cuts for the bottom near the line that was drawn showing the limit of the foot. Then, with a series of push and pull cuts I shaped the platter into an elongated ogee terminating at the rim of the platter.

Time for sanding

9 Before any of the decorative techniques could begin, the platter had to be finely sanded. Sanding after the texture is created could cause unevenness in the appearance of the texture. Sanding was done with a combination of hand and power with hook and loop discs mounted on a power drill. These efforts produced an acceptable 'rough' sanded surface. I wanted a completely smooth, almost polished surface so that the texture I was going to create would stand out. I needed more sanding.

10 Final sanding would be accomplished with a Sand-o-Flex contour sander mounted in my drill. This is a slotted plastic holder that holds a special roll of sandpaper made of eight 1in-wide strips attached to a square central hub. The strips are perforated into eight equal $\frac{1}{8}$ in widths and are dispensed through slots in the head. They separate into 64 narrow fingers of sandpaper that caress and polish the wood into baby bottom smoothness. The brushes positioned at each slot support and push the individual $\frac{1}{8}$ in 'fingers' into the various shapes and contours in need of sanding.

11 I hand sanded and power sanded the platter bottom through 180 grit. I started at 220 and finished at 400 grit. Sanding a platter is a tedious and time-consuming part of the project and the Sand-o-Flex makes short work of it.

Cutting grooves

12 The technique I learned from Frank highlights the ambrosia figure with texture and paint which is applied over some areas of the texture. The roughness of gesso applied to texture contrasts with the ambrosia figure and makes it even more interesting.

The first step was to create boundaries for the texture by using a diamond tool to incise grooves on both sides of the areas where texture was to be featured. These grooves were $\frac{1}{8}$ in from the edges of the foot which left an area $\frac{3}{4}$ in wide for texturing.

13 Next, I cut grooves in the chuck recess with the diamond tool. These grooves were more or less centred in the space between the centre and the edge of the recess and separated by an inch.



◀ Texturing

14 I wanted to use a variety of tools to create the texture on my platter. I started with the Terry Scott Textura tool. I have an earlier version of this tool which has two choices for knurls – a chequering knurl and a straight knurl. I decided to go with the chequered knurl. With the lathe slowed down to about 500rpm, I applied the knurl with firm consistent pressure to both the recess and the foot.

15 The results of the texturing were fairly consistent. The fact that little, almost none, of the ambrosia figure was in the textured areas was disappointing, but the colouring technique is effective with or without figure.

Turning the top of the platter

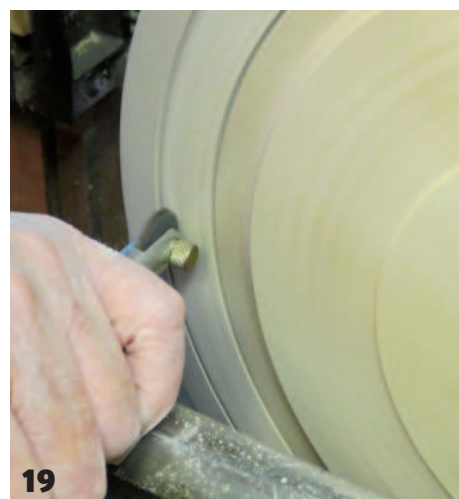
16 Once the platter was removed from the screw centre faceplate, I mounted it on the Nova heavy-duty bowl jaws. I was careful to make sure no dust or debris was in the shallow recess. I brought the tailstock up in support and located its point in the hole left by the screw centre. At this point the rim is much too thick, so the first order of business is to reduce that thickness down to $\frac{3}{4}$ in or less, and establish a rim width of $1\frac{3}{4}$ in wide.

17 I wanted a distinct terminus for the rim to provide some visual interest and a line of demarcation where the bowl of the platter begins. I cut enough wood away from the face of the platter to establish a thickness of $\frac{1}{4}$ in for the terminus. Then, in that thickness I cut a $\frac{1}{8}$ in cove along the outside edge to create a terminus for the platter rim.

Sanding & texturing the rim

18 Just like the areas on the bottom of the platter, in any area where texture is to be created the wood must be finely sanded first. The narrow area of the rim was perfect for both hand sanding and power sanding with the drill to perfect smoothness. Just like the textured areas on the bottom, grooves are cut to define where the texture is to be located. The grooves were cut at $\frac{1}{2}$ in and $1\frac{1}{4}$ in from the edge of the rim leaving a $\frac{3}{4}$ in wide area for the texture. The grooves were cut with the diamond tool.

19 Texturing was accomplished with the Sorby micro spiral tool. I mounted one of the spiral wheels vertically and used it to incise rows of parallel lines between the grooves on the rim. Readers may have noticed that I left the centre of the platter at near full thickness; this meant the rim area remained much more rigid and did not flex or warp during the cutting, grooving or texturing operations.



Hollowing the platter bowl

20 With the rim finished and the rim terminus location clearly identified, it was time to hollow the bowl of the platter. I used a ½in bowl gouge to remove the majority of the waste, with my cuts made in a stepwise manner to maintain rigidity of the platter as I proceeded. As I approached the maximum depth, I switched to a ¾in bowl gouge in order to take lighter cuts.

21 Before the maximum depth was reached, I used a thin ¼in fluted parting tool to cut a square shoulder at the rim terminus establishing a width of ¾in. This cut left an area for the bowl 9¾in in diameter.

22 I continued to hollow the platter and as I got close to the square shoulder at the terminus, I switched tools because I wanted to undercut the rim. I used a Hunter small tapered C hook tool to undercut the rim and blend the bowl into it. This provided additional visual interest and a shadow line. The little 6mm carbide cutter on the Hunter tool sliced off tiny ribbons and blended the curve of the bowl into the undercut.

23 After undercutting the rim, it was time to finish the hollowing and sand inside the bowl area. One of the more troublesome areas to sand is the area of the undercut. It is difficult not to have parallel sanding lines in such a small area. Turning and sanding revealed some excellent ambrosia maple figure. The result is ready for cutting grooves and texturing.

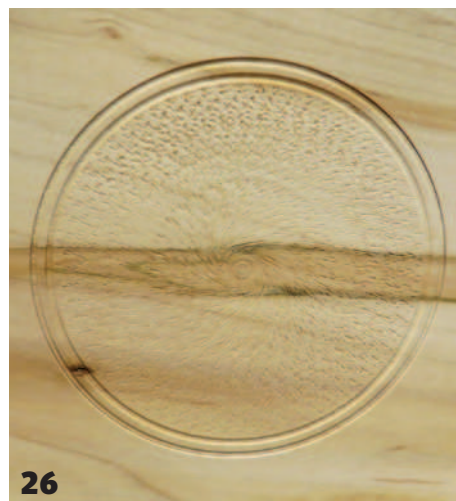
Turning a bead and texturing the bowl

24 The final turning task is to create a line of demarcation between the area to be textured and the area that is to be left plain. I decided that about one-third, 3¼in of the centre area of the bowl would be textured. I was fortunate to find some excellent ambrosia figure that extended from the rim all the way through the centre of the platter. That is the perfect location for the texturing and colouring techniques to have the most impact.

I carefully measured and marked a line that would yield a diameter of 3¼in, then used the diamond tool to incise a line. I thought a bead would look great so I incised another line about ⅛in from the first line to define the width of the bead.

25 The last turning step was to texture inside the circle defined by the bead. I decided to use a Sorby micro spiral texturing tool with the star wheel mounted vertically. I made repeated passes until I was satisfied that the texture was evenly distributed in the circle.

26 After texturing a nice bit of ambrosia maple figure passed directly through the centre of textured area. Sometimes you get lucky.



◀ Painting the platter

27 The task at hand is to apply a thin, even coat of black gesso to the textured areas while leaving untouched those strands of ambrosia figure selected for highlighting. This makes the figure 'pop'. First steps are to thoroughly brush and vacuum the entire platter, paying close attention to the textured areas to remove any loose bits of wood or sawdust. Finally, I wiped down the entire platter with a tack cloth to remove any stubborn bits of dust.

Now is the time to really study the figure in the platter. The paint is only applied in the textured areas, so it is essential I make sure I choose not only the right strands to highlight but also the number and placement of the strands to highlight.

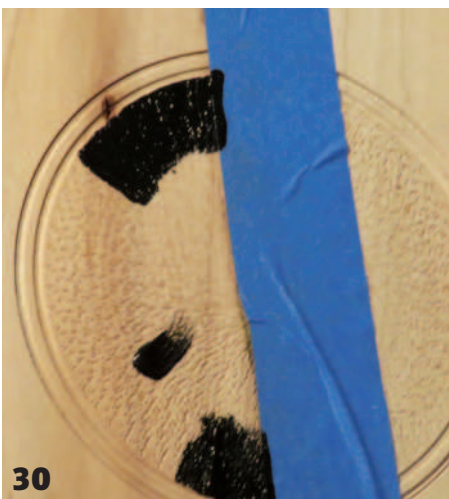
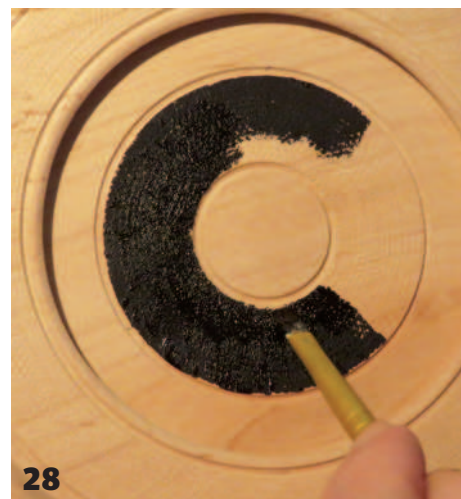
28 To accomplish this task three things are needed: black gesso paint, a small brush and some painter's tape. I started painting with the black gesso on the textured ring inside the chuck recess. There was no ambrosia figure in that area so the painting was pretty straightforward. One suggestion I would make is to paint from the incised grooves toward the centre of the textured area. I found I was far less likely to get paint in the grooves by doing that.

29 Next area to paint is the textured ring on the foot. There is a little bit of ambrosia figure on the foot, but it is irregularly shaped and was difficult to mask so a fine point brush was used. Although tedious and nerve-racking, I was able to finish the texture painting of the bottom. I preserved as much of the ambrosia figure as my painting skills would allow.

30 I was fortunate that this bit of wood has a lot of figure on the side I chose to be the top, and much of that figure had straight edges, which made it easier to mask. There was a strand of ambrosia figure that extended from the edge of the rim and passed directly through the centre. Starting at the centre I carefully used painter's tape to mask the ambrosia figure so I could paint half of the textured area. There was a bit of a jog in the figure, so I had to persuade the tape to follow that change in direction. Just like the rings of texture on the bottom I painted away from the incised grooves. I continued painting until half was done.

Painting the rim

31 I know from experience it is best to let the paint dry thoroughly before removing the tape, so I moved on to the rim to paint some of the areas there. By masking along the edge of the figure on the rim, I can get sharp, clean lines where the paint touches the figure. This is achieved by first masking over the figure along one edge by carefully aligning the edge of the tape with the outside edge of the figure. Then paint the textured area with brush strokes away from the masked area.



32 Sufficient time is necessary to allow the paint to dry. I usually allow it to dry overnight, so I was not able to remove the tape and mask the figure with tape along the other side of the figure until the next day. I moved on to other areas that were to be painted.

As I progressed it became necessary to not only mask but to draw an arrow on the tape to ensure I did not confuse myself as to which direction I was painting. The arrow in the figure points to where the painter's tape is aligned with the edge of the figure. The crisp straight edge left by removing the tape is clearly visible as well.

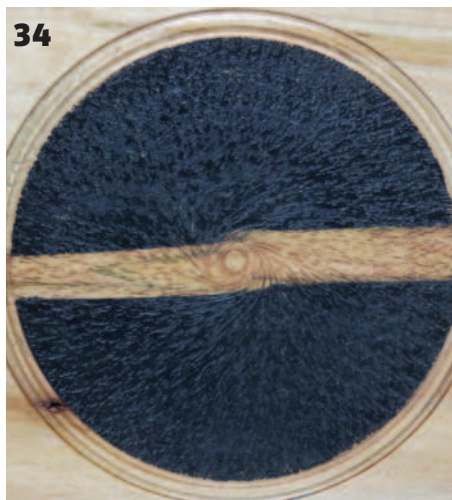
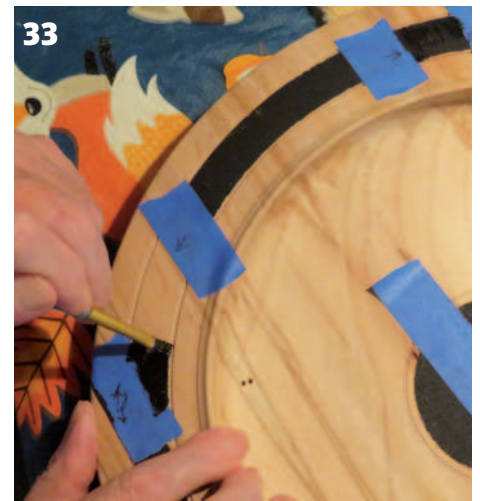
33 As I continued to paint, more and more pieces of tape were necessary to prevent the placement of paint where no paint was supposed to go. In this photo the centre figure is masked with multiple pieces of tape to conform to the jog in the figure and complete both sides of the texturing surrounding the figure.

34 I was able to complete all the painting and touch up in about three days, which provided sufficient overnight drying time to not damage the paint as the tape was removed. I did have to do a little touch up here and there where the texture was not sufficiently covered or where I placed paint in error. This I did by remounting the platter on the lathe. I carefully cleaned up the grooves where any paint had ended up. I applied several coats of wipe on polyurethane. Between coats I was careful to remove any nibs of dust with fine steel wool. The polyurethane finish makes the ambrosia figure pop and helps to highlight the texture telegraphed through the black paint.

35 The finished platter represents a lot of work and some very tedious painting but it is fascinating how the paint makes the ambrosia figure stand out.

Final thoughts

36 I enjoyed this project a lot. It was a bit of a challenge for someone who has almost no painting skills. I think it is a project that almost anyone can complete with time and patience. There are lots of timbers with bold grain and figure which could be used as a canvas for this technique. For instance, I have seen it successfully used with spalted timbers. And the contrast colour does not have to be black. I have done several of these over the years, and I am always surprised at the effectiveness of highlighting interesting grain by using this method. I hope you will give it a try. ●



36



HEALTH & SAFETY

I am sure some of you sharp-eyed readers noticed the large and ugly bruise on my left hand. I would just like to reassure everyone by saying that no turners or Woodturning authors were injured during the creation of this project and article.



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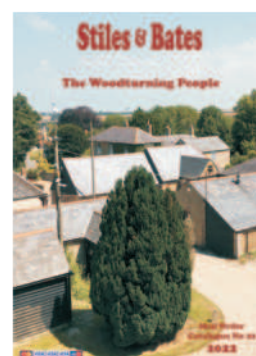
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of Jones
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Andy introduces professional woodturner Steve Jones and his turning ancestry



Sue Harker turns an elegant trio of bowls and a tray with resin inserts



Andrew Potocnik creates a textured box from red gum

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Your inspiration comes from...?

Pete Moncrieff-Jury ponders the sequence of events in the creative process of turning

I believe there are two ways of approaching any type of creative process. The first one is where you decide to make something and then source suitable material. The second is when you acquire the material and then decide what you can make from it. With woodturners perhaps the second option comes into play if our sources of material, in our case usually wood, is from gardeners, tree surgeons, etc.

If you are the type of person who designs on the fly you may well simply cut your wood to an appropriate size and see what evolves. Sounds a bit hit-and-miss but often the most innovative work is created this way. When turned or cut up, wood often reveals secrets that we don't see at first. Hidden fissures and splits, knots, woodworm – how often, I wonder, have we started a piece and found we have to change our plans because the wood has other ideas?

Personally, this is what makes the creative process exciting. One turner I know excels in production work and his idea of heaven is an order for perhaps a hundred stair spindles. My idea of hell is more than two of a kind. In any creative work there are always going to be those who like to design their work, perhaps draw a meticulous, scaled plan and follow it. Those who do segmented work are a good example and I am not sure you could do that type of work if you worked my way. It isn't something you can do on the fly, nor is renovation, repair and restoration work. All have to be created to precise measurements.

Having a plan and an idea first is common if you use pre-cut blanks – bowl blanks don't lend themselves to creating too many alternative things. If, like me, your wood comes in all sorts of shapes, sizes and conditions you need to work with the wood, not try to make it do what you want.

I make pieces for my wife to decorate using pyrography, paints and inks and she has to have wood that is suitable for the fine detail she does. The acers, sycamores and maples have proven to be consistently good for this, so I have to steel myself and buy air-dried sycamore planks and cut to size and shape for her. This is pretty much the only time I deliberately buy material for a pre-planned creative process. I do choose woods that are fit for purpose – e.g., I wouldn't use yew or laburnum to make any form of treen or drinking vessels, but I don't specifically buy wood for those sorts of things.

For me, the material itself has evolved beyond just the wood. I like introducing other materials and objects into my work so often see things in charity shops, boot and garage sales that will make me think of something different. The plaque is a classic example, made from an old mahogany table top and a brooch. The wood was too thin to make a bowl or anything like that but was fine for a sculptural piece. The enamel brooch (in my opinion) gives it an extra touch. The source of inspiration? A broken bit of furniture and a boot sale. Whether you are the type of person who loves to design a piece then source appropriate material, or the type who prefers to see what they can make from what they already have it really doesn't matter, but sometimes it is good to cross over and try both ways. Whatever our source of inspiration, the last thing we want is to become stuck in a rut so branch out, whichever source fits you – experiment and enjoy trying something different.



PHOTOGRAPHS BY PETE MONCRIEFF-JURY

“
How often, I wonder, have we started a piece then had to change our plans because the wood has other ideas?
”





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