SKEW CHISEL: DEMYSTIFYING THIS USEFUL TOOL

Woodturning

THE WORLD'S LEADING MAGAZINE FOR WOODTURNERS

Turning replica Tudor trenchers

How to make a traditional Italian grolla

Thoughts on turning soft punky timber

Turn your own napkin rings and stand

Try your segmenting skills with a square-topped bowl

The Record Power CL series lathes enjoy an enviable pedigree and reputation, stretching back to the 1950s and represent the best of British design and innovation.

These iconic lathes have now been updated with a number of improvements to offer even greater performance and value for money.

Both machines benefit from the following improvements:

New Tailstock Design

The tailstock now features a 2 Morse taper barrel and ergonomic hand wheel.

Larger Bed Bars

For increased stability and vibration reduction, the bed bars have an increased diameter of 40 mm.

Heavier Duty Toolrest

The Toolrest is now a cast one piece design, with a larger 1" diameter stem.

Hollow Spindle

The headstock spindle is now hollow to allow use of a knockout bar for removing headstock accessories.

M33 Thread Supported by Sealed for Life Bearings

The headstock now features the larger, heavier duty M33 thread for increased strength and stability, now supported by low maintenance sealed for life bearings for improved ease of use.

More Compact Size and Optional Bed Bar Extensions

The length of the bed bars has been reduced to provide a more compact machine, favoured by the vast majority of woodturners and giving 24" between centres. For those who wish to turn larger work between centres optional 12" bed bar extensions are available.

Shown with optional lathe stand. Prices valid until 28.2.2017.

CL3 Professional 5 Speed Lathe
12100

Specifications
Maximum bowl diameter: 762 mm (30")
Maximum between centres: 610 mm (24")
Maximum swing over bed: 305 mm (12")
Spindle speeds: 475, 670, 985, 1410 & 2070 rpm
Motor: 3/4 hp
Thread: M33
Taper: 2 Morse taper
Weight: 86 kg
Size: L1210 x D435 x H386 mm

CL4 Professional Electronic Variable Speed Lathe
12201

Specifications
Maximum bowl diameter: 762 mm (30")
Maximum between centres: 610 mm (24")
Maximum swing over bed: 305 mm (12")
Spindle speeds: 13 - 4600 rpm
Motor: 1 hp
Thread: M33
Taper: 2 Morse taper
Weight: 90 kg
Size: L1210 x D435 x H520 mm

New Updated CL Series Lathes

From only

£499.99

RECORD POWER
ESTABLISHED 1909®

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

Over 100 years
Experience • Knowledge
Support • Expertise

RECORD POWER
STARTRITE
CORONET
BURGESS

Incorporating some of the most famous brands in woodworking, Record Power have been manufacturing fine tools & machinery for over 100 years. Built to last we provide support for thousands of machines well over 50 years old, which are still in daily use. Testimony to the sound engineering principles and service support that comes with a Record Power product.

INTRODUCING THE LAGUNA REVO 24|36

TAKE CONTROL

Featuring remote control box w. speed settings

LAGUNA expands the revolution that started with the hugely successful Revo 18|36.

REVO 18|36

2HP, 220v 1 phase
Conical headstock design
Hi/Low Electronic variable speed
World-class fit finish & quality control
Cast iron components paired w. Steel bed

REVO 24|36

3HP, 220v 1 phase
Machine polished Steel Bed
Extreme torque even at low RPM
Remote control box w speed settings
Patent pending Steel shoe aligns tailstock

LAGUNATOOLS.COM

PHOTOGRAPH COURTESY OF GMC/ANTHONY BAILEY

Spread the word

Turning is a fascinating subject, but we do need to tell people about it

Publicising what one does is a fundamental part of marketing. Clubs, companies and individuals need to tell people what they are up to if they wish for people to know about them. Now for turners, there are specialist publications, websites and other social media that can help spread the word, and this can be very effective, but this should only form one part of a very large mix.

If, for instance, you are a club looking to attract new members then it is about making sure the local people to know about you, as well as those further afield. Often this will involve (hopefully) piquing the interest of interested people, but who have yet to commit.

How many clubs alert the local papers what they are up to? Does the local community know you exist? Do you use social media like Facebook, Instagram and suchlike to target a broader audience? When you are out and about at events and have a display of work, do you have a nice sign saying 'talk to us about membership' or something along the lines of 'talk to us if you would like to know more about our turning'? I have seen some such signs out and about.

The clubs I have seen who are proactive at events typically have a person as a point of contact for people to talk to and ask questions. I know this adds another layer to the already complex issue of getting people involved, but the simple fact is that to survive, and hopefully grow, relies on work being done to encourage new people to come along and be part of what is a wonderfully vibrant and diverse community of people who share a passion to create something.

The sad thing is that one of the biggest issues is getting the message across to as wide an audience as possible, telling people who we are, what we do and why it might be fun for them to come along, give it a go and get involved.

Try and remember how you first came to know about turning. Often it is through a family member or friend. That still works, but shows are also a great way of getting people to know about us, but not necessarily the woodworking shows. You are preaching to the converted and we as woodturners and woodworkers attend shows to learn from others, buy things and catch up with people. They can be a source of getting new members but richer sources are often found at different types of events, where people are interested in crafts without necessarily knowing about what all the disciplines of woodworking are.

Getting new members and shouting about what you do can offer people takes effort, but we all need new people to carry the torch, to hopefully tell others what a wonderful thing turning is. I would love to hear about how you and your club are marketing yourselves.

Never assume people in your locality and wider afield know about you and always try to use every source you can to tell people about what you do. You might be surprised at the results.

Have fun,
Mark

markb@thegmcgroup.com

Woodworkers Institute website (**www.woodworkersinstitute.com**) is thriving. It would be great if you took a look and participated in the various discussions and competitions in our community, or see us on Facebook & Twitter.

Contents

Issue 303
March 2017

COVER IMAGE courtesy of Chris Grace
See page 23

Projects

Techniques

Community

Features

Kit & Tools

NEWS, LATEST PRODUCTS, MAGAZINE UPLOADS & EVENTS
can all be found on www.woodworkersinstitute.com. These all appear on the magazine homepage and you can see a bigger selection by scrolling down the page and clicking on the individual stories. We also have an extensive online archive for you to browse

HEALTH AND SAFETY

Woodturning is an inherently dangerous pursuit. Readers should not attempt the procedures described herein without seeking training and information on the safe use of tools and machines. All readers should observe current safety legislation.

nova galaxi dvr™

7 REASONS TO LOVE NOVA LATHES

- **Quality materials, solid cast iron throughout, heavy duty triple bearings**
- **Precision manufactured using the latest CNC machines**
- **Large lathe capabilities in a compact workspace**
- **Strong 2 Morse Taper spindles and great speed range**
- **Fully 360° swivel head**
- **Auto stop safety sensing**
- **Comprehensive warranty**

Galaxi DVR 1624-44 Lathe with Stand

£2,421.10 Inc.vat Code **101971**

The NOVA Galaxi DVR will make your turning experience more efficient, safer and more fun. It is highly versatile and the perfect lathe for turning small pens and large bowls. It brings together the most useful features of larger lathes with the most advanced, award winning DVR technology, delivering an incredible turning experience.

- 8 preset speeds for fast setup and speed knob with super clear display
- Quiet, super smooth lathe with no pulleys or belts
- Delivers high torque from its start speed, suiting low speed turning
- Direct drive with powerful motor, when idle turns off after 10 minutes
- Electronic auto braking feature
- Spindle closely controlled by computer and direct DVR drive motor
- Firmware upgradable so future-proof
- Optional wireless remote (from January 2017)

Power	**1,500W(2.0hp)**
Speed	**100 - 5,000rpm**
Spindle Taper	**2MT**
Spindle Thread	**M33 x 3.5**
Taper Tailstock	**2MT**
Distance Between Centres	**1,115mm(44")**
Max Diameter over Bed	**405mm(16")**
Tool Rest Stem Diameter	**25.44mm(1")**

Galaxi Outrigger

£240.46 Inc.vat Code **101973**

Allows turning up to 735mm dia.

Find out more at ***brimarc.com/nova***

or call ***03332 406967***

North American readers visit ***novatoolsusa.com***

Prices include VAT and may be subject to change without notice.

BriMarc TOOLS & MACHINERY

How to make a grolla

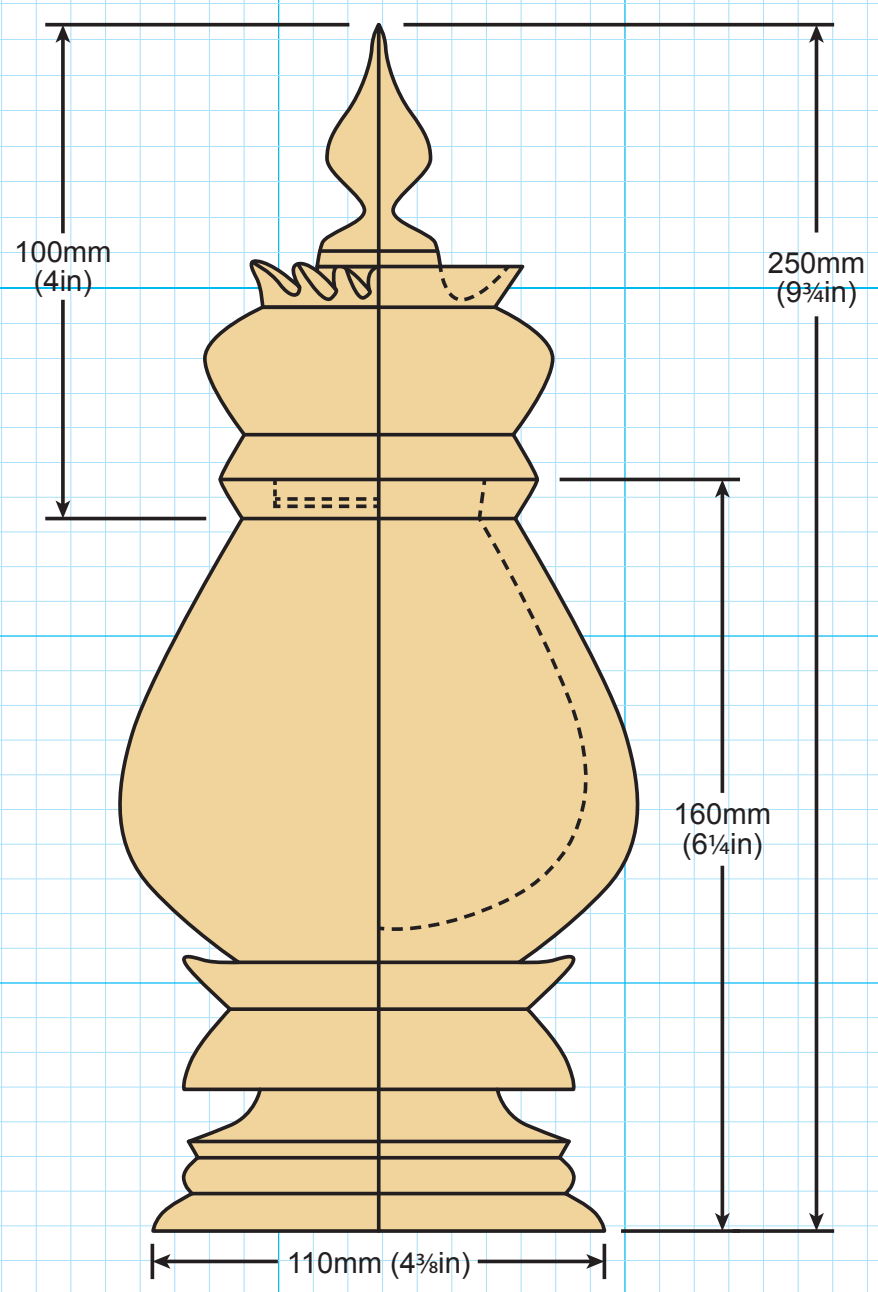
Andrea Zanini turns a typical Italian goblet, known as a grolla

In my previous article I wrote about a typical Italian pasta stamp, called croxetti. In this article we will discover another typical, and a little mysterious, Italian turning: the grolla. It's a peculiar goblet which originates in Val d'Aosta (Aosta Valley), a northern mountain region, bordering Switzerland.

Its origins are very ancient and the name comes straight from the Graal. During the middle ages it was made out of silver and covered by complicated engravings. Very soon, cheaper wooden copies started to appear, which – among the population of the often isolated mountain villages – became a strong social adhesive. During meetings, people used to drink hot wine from the same grolla in order to strengthen the sense of belonging to the clan. The very same ritual was used within a family and the most important and adorned grolla was passed along from father to son.

Centuries passed and the grolla lost its strong social importance, but remained as a symbol of the region. You can find it in many Italian houses as a souvenir, it is often used as a prize for sport competitions and it's the protagonist of a peculiar version of the 'game of the goose'.

PLANS AND EQUIPMENT



EQUIPMENT AND MATERIALS

Tools

- Roughing gouge
- 10mm spindle gouge
- Parting tool
- Jacob chuck with 12mm drill bit
- Hollowing tool
- Calliper

Materials

- Blank – 300 x 130–150mm
- Blank for the finial
- Abrasives down to 240 grit
- Finishing oil

SAFETY SANDING

Sanding the inside of a vase, or a turning in general, that has a narrow opening can be a tricky and even dangerous task. Don't stick your fingers inside the piece, but take a small wooden stick, place a piece of paper on the tip and wrap with a strip of abrasive, firmly held in your hand.

A wooden stick, a piece of paper (or cloth) and a strip of abrasive is all you need to safely sand the inside of a box or small vase

NARROW SPOTS

When turning small details in narrow spots a spindle gouge might not be the best choice. The wings can catch the wood and you might not have a gouge small enough. Using a skew chisel could come in handy solving many tight situations. When used positioned as a parting tool, it's easy to handle and leaves clean surfaces.

A skew chisel is the perfect choice for turning small details or undercutting rims in tight spots


1


2


3


4


5


6


7


8

1 First of all you have to choose the right piece of wood. Traditionally the most used wood was walnut (*Juglans nigra*) or maple (*Acer saccharum*), mainly thanks to their resistance to heat and humidity. If you're going to use the grolla to drink I would suggest maple, otherwise you can use the wood you like the most. Just consider that if you are going to hand carve some details, a very hard wood would make your life a little less easy. In this case, I picked a piece of olivewood (*Olea europaea*) because I really liked the grain and the measures of the blank (300 x 120mm) were just perfect.

2 Place your blank between centres and rough turn until you have a regular 115mm diameter cylinder. Then, using a parting tool, true the ends and turn a tenon. A grolla is basically halfway between a goblet and a box, and this will be the tenon for the main body.

3 Mount a chuck on the lathe and place the just turned tenon in the jaws.

4 Using the parting tool, turn a small tenon. This will be used later on to hold the lid in the jaws. You won't need a very deep tenon, 5mm will be fine.

5 Using a parting tool, cut a deep groove at 50mm from the tenon's shoulder. Finish the cut with a handsaw; it is much safer and you won't accidentally tear the middle fibres of the blank.

6 It is now time to shape the main body; you can do it just by looking at a template and eyeballing all the dimensions, but marking the measurements on the blank helps to remember all the details, especially when the working surface is limited and a tiny cut could erase an important bead.

"A grolla is basically halfway between a goblet and a box..."

7 Use a sharp spindle gouge to remove material and shape the main body. Take your time and constantly check for proportions. The main curve where, once hollowed, the wine will be contained, is similar to an ordinary goblet but with a bevelled edge going outward.

8 Drill a 12mm pilot hole using the tailstock and a Jacob's chuck, then with a hollowing tool of your choice hollow out the cup-shaped par of the main body. You won't cut through the end grain, so it is a fairly simple hollowing; be careful not to go too thin, especially if you intend to pour liquid in it.

9 When you've finished the hollowing process, use a freshly sharpened spindle gouge to slightly cut an inward slope on the shoulder of the grolla's opening. This will help the flow of the liquid from inside to outside of the container. Be careful not to leave any sharp edges, both inside and outside the rim. Then, sand the grolla using abrasive from 150 grit to 240 grit.

10 Remove the grolla from the chuck and replace it with the lid. Using a parting tool and a calliper, carefully turn a tenon that will fit the opening on the main body. Since this isn't a box it doesn't have to be a perfectly snug fit, the lid just has to stay in place when turned upside down. Take your time and check often the fit using the other half of the grolla.

11 Use a small spindle gouge to shape the half facing the just turned tenon. Do it now, because you will have to reverse chuck it and you won't have enough space to work comfortably.

12 Before taking it off the chuck, turn a small depression on the base of the lid; although not strictly necessary, it will finish the job nicely. You could add some details, which would be a sort of a nice hidden surprise.

13 Here you can see the concave depression turned in the base of the lid. Don't remove too much material because you will use this tenon to hold the lid in the chuck.

14 Replace the lid in the chuck and start turning the other part. Every grolla has a thin collar that surrounds the finial (or, in this case, the place where the finial will be). It is a very delicate part to turn because it is likely to crack and you have to operate in a narrow space. Don't rush, and use freshly sharpened tools.

"You could add some details, which would be a sort of a nice hidden surprise."

15 To turn a finial use a small piece of contrast wood; I used a scrap piece of king wood. Place it in the chuck and turn a small 10mm tenon.

16 With the tailstock and a Jacob's chuck, drill a 10mm hole on the top of the lid and with a drop of glue, insert the finial blank's tenon. Wait for the glue to dry and then shape the finial using a small gouge. When you've finished shaping, sand it using the same process as before.

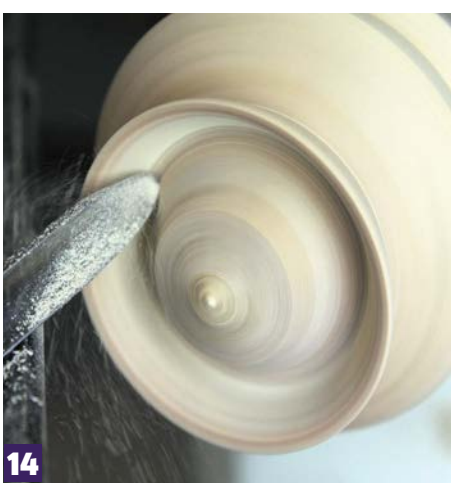

9


10

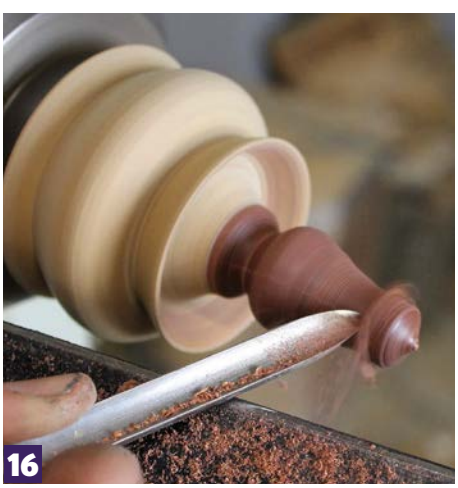

11


12


13


14


15


16


17


18


19

17 Grolla lids are always decorated with a crown-like ornament. Use an indexing jig to mark the guidelines and with a rotary tool carefully remove material. When you have cut all the 'spikes', use a small file or a rolled piece of sandpaper to lightly sand it.

18 Remove the lid from the chuck and, closing the jaws, secure the grolla's body with an expansion grip. If you don't have jaws small enough you can easily turn a jam chuck with a piece of scrap wood. Use the tailstock to hold it firmly in place.

19 Using the spindle gouge slowly and carefully remove the tenon. To improve the stability turn the bottom slightly concave and leave a small bit of wood that you will remove off the lathe by hand or with a rotary tool.

20 Here is the finished piece. Traditionally, grollas had no finish and, especially if you intend to drink out of it, you should avoid synthetic finishes. I used a food-safe oil mixture to enlighten the grain. The style covered in the article is very essential and you can improve the design by adding all the details you wish and make your personal grolla. ●


20

Community news

We bring you the latest news from the world of woodturning and important dates for your diary

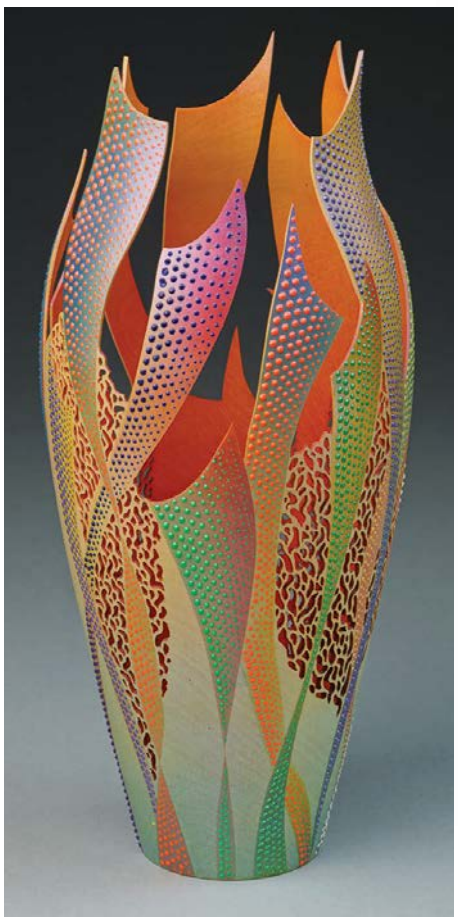
We try to give accurate details on forthcoming events. Please check with organisers for up-to-date information if you are planning to attend any of the events mentioned.

AAW: Unearthing Artistic Voice – Frank Sudol

Frank Sudol's work is stunning, elegant, thin-walled vessels embellished with pierced patterns that are often accented with airbrushed colours. His students would readily tell you he was a unique character, explorer and risk taker. Recently, collectors Jane and Arthur Mason donated Frank Sudol's graceful ribbon vessel to the AAW Permanent Collection. The vessel became the final piece for a display on creative development at the AAW Gallery of Wood Art in Saint Paul, Minnesota. When Sudol passed in 2006, his partner Lois Laycraft donated two of his works to the collection – a delicate pierced goblet from 1994 and an earlier sturdy cocobolo plate with astonishing turquoise suede lacing. When seen with the goblet and the ribbon vessel, the plate illustrates an early exploratory step in Sudol's journey that eventually led to the colorful, thin-walled, pierced work for which he would become known.

Sudol had already achieved recognition and success with his pierced goblets when a question from artist Michael Hosaluk changed his course: "Frank, have you ever made anything for yourself? Just for yourself, not for somebody else, nor for sale, just for you? That makes you happy?" As Sudol related the story in the insightful DVD *Starting Your Creative Engine* (Turningwood Productions, 2005), he was ready to run down to the workshop and get started, when Hosaluk said: "And by the way, Frank, it should have colour." Unsure in his own abilities and lacking formal training, Sudol had only tentatively worked with color. Freed from pleasing others, he set to work and emerged from the shop with his first boldly colorful ribbon vessel.[1]

In his later years, Frank Sudol dedicated himself to encouraging others to find their own voices and creative courage. Artist Binh Pho was one of his students. After seeing one of Sudol's pierced goblets, Pho says, "I immediately knew that I needed to meet him, as I was looking for ways to incorporate negative space in my work. The two most important things that I learned from Frank were being true to myself as an artist, and opening up the work through piercing.



Ribbon Vessel, 1999 in birch, using dye and fabric paint, 290 x 140mm

It brought a whole new direction to my work."[1] In the creative process, not all ideas lead to success, but there are few truly dead ends: each piece is a start and may hold the seed of better work to come. "No matter how good we are, it is always a start," said Sudol. "As I learned more, I did better. And so will you."[1]

"The message for my students is, you will never be remembered for what you copied, but you will be remembered for what you created... Once you reach inside, you will have original work."

— Frank Sudol

1. Shaw, Tib. "An Artist's Progress: Advice from a Master." *American Woodturner*, December 2016.

Goblet, 1994 using birch and paint, measuring 170 x 90mm

Plate, Undated early piece in cocobolo, using suede laces. Measuring 40 x 300mm

PHOTOGRAPHS BY TIB SHAW

AWGB: Birthday Celebrations with Yann Marot

Chelmer Valley Woodturners present a day with 'craftsman woodturner', Yann Marot as a double Birthday celebration for Chelmer Valley Woodturners 20th year, sponsored by the AWGB with a 30th Birthday Bash Grant.

A well respected woodturner in France, Yann is a production turner who also creates the most beautiful bowls, hollow forms and sculptural pieces. He has demonstrated widely in France as well as Spain and Ireland and was a demonstrator at the AWGB's International Seminar in 2011. Simon Hope Woodturning and Paul Howard Woodturning will also be in attendance.

The event is open to all interested woodturners and woodworkers, not just AWGB members and the hall has full disabled access. Application forms and travel directions can be downloaded from the club's website.

When: 4 June, 2017
Where: Mountnessing Village Hall, Roman Road, Mountnessing, Brentwood, Essex CM15 0UH
Tickets: £17 – including refreshments and buffet lunch (10am–4.30pm)
Contact: Louise Biggs – Events Secretary
Tel: 01245 400728
Mobile: 07990 843226
Email: lbiggs@anthemion-furniture.co.uk
Web: www.chelmerwood.co.uk

Celebrate with Yann Marot

PHOTOGRAPH COURTESY OF THE AWGB

Vase frene sablé ebene

WOODWORKING EVENTS

Turnfest 2017

Turnfest is Australia's largest and longest running woodturning symposium, and this year is the 15th Anniversary. Featuring 15 of the World's Best woodturning artists and teachers including: Internationally renowned woodturners, Australia's best woodturning and carving professionals. Multiple rotations are held simultaneously so the attendee has many different types and styles of woodturning and carving demonstrations available. Each demonstration is repeated so the attendee has the opportunity to attend sessions they may have missed.

When: 24–26 March, 2017
Where: Sea World Resort and Water Park, Gold Coast, Australia
Web: www.turnfest.com.au

PHOTOGRAPH BY GMC/ANTHONY BAILEY

The Midlands Woodworking and Power Tool Show

The Midlands Woodworking and Power Tool Show promises to be a weekend filled with great demonstrations for you. These include demos on: turning, carving, furniture making, chair making, scrow saw, marquetry, CNC machinery, pyrography, boat building, band saw, sharpening and clubs, colleges and associations will be attending.

When: 24–25 March, 2017
Where: Newark Showground, Nottingham
Web: www.nelton.co.uk

Clarifications, omissions and corrections

In issue 301, on page 61 we featured an article titled Thoughts on Steels by Ernie Conover. One of the subjects discussed was powdered metal steels, which are commonly abbreviated to PM or CPM. There was an inadvertent omission in the text concerning powdered metal turning tools, in that Ernie's comment regarding the hardness of such steels as being 'about 58HRC' was made regarding the hardness of such steels in some of the tools made in the early days of their use in the manufacture for turning tools. The modern varieties of powdered metal available have grown massively to create variants to suite a greater range of applications and to exhibit different characteristic to better suit specific requirements and needs. In the case of turning tools it has a higher hardness than standard M2 steel and increased wear resistance. Some of these new and refined powdered metal steels are now used in today's turning tools, and today's powder metallurgy turning tools are hardened from 64-69HRC. Our apologies for this omission.

The abbreviated term of PM used by us to describe powdered metal steels – which is also the most commonly used abbreviation to refer to such types of metal in the powdered metal industry – should in no way be seen as linked to any specific brand name(s) of tools supplied by any turning tool manufacturers.

Why turn punky and soft wood?

In the first in a series of articles, **Alan Wasserman** looks at using imperfect wood, starting with the implications and things to consider when using soft 'punky' wood

Why write an article on using imperfect wood for your woodturning project? Imperfections in wood can include rot, spalting, discolouration, bark inclusions, worm holes, voids, cracks, fissures, etc. Each has implications when they are present in the wood. Some might say that if the wood has imperfections it should be thrown on the fire pile – after all, wood grows on trees!

Timber

Quality wood can be located and bought from many sources. Perfect timber costs money – depending on the species and figuring, a lot of money – but it can be what is required. What about wood that isn't quite perfect – like getting our hands on a piece of driftwood or being offered or coming across a felled tree or sections from a tree surgeon? What about natural edge blanks or burrs? These are highly likely to have faults or imperfections. Also, we might find – like I did when I started a 355mm bowl that had no visible signs of having defects or imperfections – seriously soft and partially rotten timber become evident while turning the outside to a rough shape. Other examples one might come across where there is a desire to turn work that is less than perfect are:

- A family heirloom piece of furniture that is unrepairable but can be re-purposed into a woodturning project that will pass down the family and last many lifetimes
- An exotic and valuable piece of wood that 'needs to be saved'
- You may have worked long and hard to create a satisfying form and then discovered an imperfection that needs to be corrected or managed to save the extended time you invested
- A piece of wood that costs a lot of money and you don't want to end up with nothing
- A down section of tree that looks as though it will yield interesting timber.

While all of the above – and no doubt people will have many more reasons to want to turn a piece of less than perfect wood – are valid reasons, there are of course implications and considerations to be borne in mind when working with such wood.

Considerations

Truthfully, it comes down to you being brutally honest with yourself about making an assessment on the nature of the fault(s) in the wood, analyse the risks of what can go wrong and what can be done to remove or minimise those risks to an acceptable level. You might find that the risks are too great or beyond your ability to effectively manage and minimise them. There is no point in unnecessarily placing yourself in harm's way.

Remember, even if you can analyse the risks and have the skill level, always ask if it is worth the effort or risk. Conversely, you might find that with systematic planning, sensible analysis, appropriate precautions and working methods, you can work with or salvage something from the piece of wood you have. This exercise is really quite rewarding.

Causes

Punky or soft wood is often found in timber that has been down a long while and is at various stages of the spalting process or starting to rot due to water damage, infection and suchlike. Many standing trees exhibit areas of damage that may well at some stage start to rot. But we have all, no doubt, come

PHOTOGRAPHS BY ALAN WASSERMAN, UNLESS STATED OTHERWISE

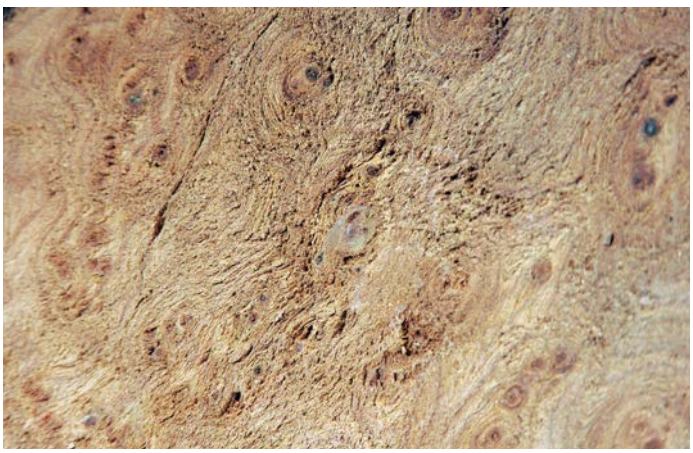
across wood that is soft and we know will be hard to cut – often prone to tearout or pluck out – and even if it can be cut reasonably well, it doesn't sand well as it will sand quicker than the surrounding harder areas, leaving an uneven surface.

The amount of soft or punky areas encountered will vary considerably from piece to piece. It is worth noting that some species of wood are naturally soft even when no rot is encountered, so the following comments hold true even when working those types of timber.

Control location of holes to the centre of the piece and placing the dip of bark saddle pointing down at the hole

Control location of pith-parallel

A punky piece before shot



Soft punky timber on a burr

Safety first

The truth of the matter is that you will not remain a woodturner for long if you are the victim of an exploded imperfect 50lb piece of wood, turning at speed. That applies to solid sound wood or sections of compromised timber. Never undertake any turning without the proper protective gear and procedure; at best you will have permanent injury and at worst…

So, how to protect yourself when turning a 'challenged' lump of wood? The following applies to any size and condition of work being turned.

- Make an honest opinion of the quality of the wood being looked at and assess whether it is safe to work and if you have concerns but still want to turn it. Can the risks be managed well and appropriately to minimise the risk of something going wrong?
- Make sure you have a minimum of a sturdy full properly high-impact rated face shield, appropriate personal and

Always stand out of the line of fire – the potential exit point – of work while you turn

at source dust extraction
- Never stand in the line of fire – potential exit path of your work – until your piece has been secured in your final choice of holding
- Never tackle work that is beyond your ability
- Make sure your work is properly secured on the lathe before switching on the lathe. The method of fastening needs to adapt to the type of imperfection (face plate vs glue block vs four jaw chucks, etc.)
- Some lathes come with a heavy duty mesh over the screen to use when turning. If your lathe has them, use them
- The tailstock is your friend. Use the tailstock for additional security whenever feasible and not a hinder to accessing your work. Whether you are using a faceplate, glue block, chuck or other devises for final mounting, the tailstock should be used to add extra hold of your work to the headstock
- Ensure that you have selected the right speed on the lathe commensurate with the size and condition of the work
- Never assume anything is totally secure. Always stop the lathe regularly and check to see what is happening. Check for hold and deterioration on condition of the timber
- Always wear an appropriate respirator suitable to deal with dust and potentially toxic hardening/finishing products.

Methods of holding your work while shaping it – pros and cons

PHOTOGRAPHS COURTESY OF GMC PUBLICATIONS

The initial mounting of a blank between centres

An example of a glue block union being positioned on an already rough-turned bowl. This method could be used to mount a new blank of wood ready to be turned

A faceplate fastened with sturdy screws is your most secure (unless the imperfections prevent) method if the wood is flat and you can lock into solid wood. The problem with this technique is that you lose control of your design options – ability to adjust alignment or easily tilt the work axially – when compared to a centre-to-centre between method. You cannot move your piece on- or off-centre, on or off a feature you want to highlight, even out a natural edge bark alignment or position a natural hole or inclusion to create a balanced design of your desire. Also, if the wood is soft and it happens to be in the area where you need to fix the faceplate, the screw holds will not be secure.

Centre-to-centre – between centre holding – is often the go-to holding option for many turners when shaping and designing the outside and to create a tenon for final holding.. To accomplish this, find what you assume to be the centre of the top and bottom of your piece. Gently tighten the wood – between a drive spur and revolving centre – and when secure between centres, rotate the piece by hand ¼ of a rotation to see how the piece moves on its own. If the piece is out of balance, it will rotate and rest with the heaviest section downwards. Adjust the centre positions so that you can minimise this out of balance aspect and then rough shape the wood creating the mounting method of your choice for turning the inside.

If you use between centre method, you can adjust the centre positions and manoeuvre the work so you can see the most figuring or highlight a feature to the maximum. Although this may create an imbalance in the wood intially, you gain that special look with the wood on your work. A screw chuck or four-jaw chuck with screw chuck insert in another option. If the wood is already flawed or soft it may not allow the use of this method, but if you so find a secure screw hold in solid timber then this method can work.

A glue block (turn a concave area met with a glue block that also has a concavity, using thick CA glue for the union) is an option but solid flat faced timber is needed. This method is better looked at after the intial shaping is done. Again, this depends on the imperfections you are presented with as to the security for the hold. If you are using this method on rough-turned blanks I have a series of different sized 'permanent' glue blocks that I have been reusing for three years. I have drilled a 2mm hole in the centre of the block and use a metal coat hanger to find centre on the piece to be glued. Place a ring of thick CA glue around the rim of the area on the piece to be joined, spray activator on the block area being joined, and then slide the block onto the piece using the coat hanger as your guide (thank you Lyle Jamieson for this tip!). Again, it fixes a blank in a given position and does not afford easy adjustment of alignment.

Once your final holding method has been determined, make use of the tailstock to provide additional security when holding your work and remember to tighten everything up nicely before you begin truing up. As you do so, the balance will need to be checked and adjusted periodically.

TOP TIP

One thing to bear in mind is that faster speed and slower cutting will usually result in the best cuts. The speed selected is a function of safety and no vibration. Adjust the speed to a safe level to suit the size and condition of the wood to the point that you remove completely or minimise the vibration induced by the work as far as is safe to do so.

Once you are trued up (and any vibration is eliminated or minimised) examine your imperfection locations and place any holes, inclusions, bark balance on a natural edge piece, or wood discoloration in a position of your design choice. Once your decision is made, readjust the position of your piece to achieve this design, slow your speed until you are trued up one last time, then increase your speed to your comfort level and begin shaping the outside.

Once satisfied with your rough shape and design and have selected your final holding method turn the inside – I chose a spigot to fit in a chuck for my 355mm bowl – turn the inside to a rough shape and set aside to dry/season. Once dry, the wood can be worked with straight away, you are ready to harden or treat the soft areas.

The good soak

Soft or punky areas of wood – note the word 'areas' – can often be sorted out with a good soak of a solution or fluid that will harden the wood. The 'soak' I find most effective is to saturate your piece with a wood hardener. My go-to wood hardener is the High Performance Minwax Wood Hardener. Having said I use a specific wood hardener, it is worth noting that there are numerous alternative brands of wood hardener. Here are a few others available: Rotted Wood Repar-PC Petrifier, Lee Valley Liquid Wood, Drechseln & Mehr Wood hardener. These are either brushed on to flood the affected areas or coat the whole piece. Although more expensive – the need for more product – work can also be dunked in a tub/bucket of the solution to soak it completely and left to dry. Multiple coats/dunking can be done too. The objective is to harden the wood and make cutting it easier.

Saturate as the product recommendations and/or needs dictate, but effectively do this until you see absorption has just about finished. Allow the wood to dry fully before continuing. The drying times will vary depending on the product used. The bowl I treated – a punky 355mm diameter bowl – took two days to dry and absorbed 1ltr of hardening solution.

Alternative methods for treating small areas are:

- Rub warm water on the affected area
- Apply thin or medium Cyanoacrylate adhesive glue
- Treat the wood with thinned down sanding sealer
- Use one of the many thin free-flow epoxy products available now.

This bowl has had complete saturation of wood hardener all over

It is worth noting that some treatments can colour the wood or certainly darken them considerably, so please bear this in mind; when working and if in doubt, try the product you have on a small area. If you are patch sealing and the wood does change colour significantly the patch may show up as a distinctly different area. If this looks wrong when contrasted to the untreated area, treat the whole work with hardening solution or treatment to unify the colouration.

Note: If a patch of wood is only slightly after than the surrounding areas, some people just apply a very light coat of oil or wax to that area and then make a cut. Warning! This application of oil or wax can affect any final finishes applied later on. But, for very small areas, this method can work well.

The saturated and hardened dry bowl ready to work with

After the wood is hardened or treated

Now comes the stage for turning the wood to what is (hopefully) a decent finish, prior to sanding and coating it with a finish of your choice.

Once the hardened wood is dry I chose to mount the work between centres and refine the outside – typically using a push cut – then adjusted the tenon size to suit my chuck jaws or glue block and set about finishing the outside shape and then turning the inside.

Remember I mentioned chucking and holding work to turn the outside? The same considerations apply to holding the work while turning the inside. You need to select a holding method that will keep the work securely at one end while turning the inside.

Even though you have hardened the wood in some way, all of the potential problems with faceplates and glue blocks mentioned earlier hold true, and if you opt – as I did – to use a four-jaw chuck, make sure you can lock onto solid sound timber and that the spigot is large enough to hold the work properly without the risk of shearing across the tenon or recess wall when turning.

Initial mounting of the hardened rough-shapes bowl between centres in order to refine the outside shape

Typically, we look to have at least 35% of the overall diameter to hold in a recess or spigot to minimise the shear risk. That said, always use the tailstock in place for extra security no matter what method you use and only remove it once it gets in the way.

Tools to refine work

The tools and their use in stages (good to better) of perfecting the smooth cut are: a 15mm bowl gouge, 10mm bowl gouge, a 6mm bowl and/or spindle gouge and cabinet scrapers. The use of cabinet scrapers freehand on turning is deemed by some to be dangerous. In reality, as with using conventional turning tool scrapers, the biggest issue is avoiding dig-ins by taking too heavy a cut, presenting the cutting edge upwards into the oncoming wood, in the case of square across or angled scrapers of any sort, touching any of the pointed ends into oncoming raised work or chucks – especially if titled upwards.

By using a trailing angle, keeping clear of upstanding detail and spigots and chuck areas, the trailing freehand action of using cabinet scrapers can work well. Remember, that this method is never used in conjunction with a toolrest; the scraper is always pointing downwards in the lower half of the work and only ever sharpen one edge of the blade – the one being in contact with the wood. If you sharpen all edges and slip or run your fingers across the non-contact edge then you can cut yourself.

If this method is not something that you would like to use, try using a conventional scraper or negative rake scraper used in conjunction with the toolrest on a waste bit of the bowl, to see of you can or cannot get a finish. If you can, turn your work using gouges – looking at the methods mentioned below, then go to scrapers if you think you can refine the surface a bit more – if not, go straight to abrasives after the gouges have been used.

Selection of the tools I use to shape my work

Sharp tools are the key to a smooth cut

It is never too repetitive to stress the need for sharp tools. I have found the best 'finish' for me in sharpening comes from using CBN wheels. Others will have varying opinions on what is best for them, but whatever you use, sharp edges are the key to success. I use an 80 grit for shaping and 180 grit for fine sharpening, or better said, touching up the cutting edge. Sometimes I hone the cutting edge, but that is not necessary at the beginning stages of your project. Before my 'finishing' shear scrape, I retouch the cutting edge on my 180 grit wheel and then create a burr on the side of my gouge/cutting edge that is doing the work.

Variously shaped cabinet scrapers

Cuts that will make a difference

A pull cut is an option to remove bulk, but is not as good at refining a surface as a push cut

The push cut is the go-to cut for optimum shaping and refinement

A shear cut is a cut that may – or may not – improve upon a push cut

A gentle shear scarpe with a bowl gouge can help eliminate punky timber and grain tear out

Depending on the individual piece of wood you are working with, push cuts are usually the go-to cut to start with. The keys to a good push cut is a sharp tool, body/foot balance so that you are in the most comfortable position at the end of the cut, speed up on the rotation and cut slowly and thin (say 3mm) cuts. As you can see, the results are amazing. The pull cut can also be used and the effectiveness is dependent on the particular character of the wood. Shear cutting is different from shear scraping. It might well help eliminate torn grain. If the imperfections/tear out still exist, try your conventional grind bowl gouge and then downsize to a 6mm bowl and/or spindle gouge.

Shear scraping with a gouge. Once you are down to your desired thickness (plus a fraction for final cut and sanding) and design, apply a water soak and create a burr on your bowl gouge. Position your body parallel to your piece, move your body with the scrape and then cut, lightly holding your gouge with your fingers, not your hand (as if you were painting the Mona Lisa) and cut as if you were shaving a peach. This requires

the highest speed to your comfort, 90–95% tool weight on the toolrest, slow and shallow cuts and moving your body, not your hands, as you cut. Your shear scrape cutting edge should be approximately 80–85° facing the cut, handle almost straight down and make a slow light 'shaving' scrape.

Shear scraping with a cabinet scraper: If there are any remaining imperfections, create a nice burr on your scraper, apply a water rub and while your lathe is at its highest safe speed for the size and condition of work and your comfort level, apply the scraper with the lightest of touches at an angle of 45° to the wood. Glide it from the bottom of the piece to the edge.

Cabinet scrapers can be used to great effect, but if you are unsure about freehand scraping, use a conventional scraper placed on the rest and presented in shear cutting mode or use a dedicated angled shear scraper to remove minor imperfections

If you are encountering problems with cleaning up the grain on the final cuts, the following may be worth exploring.

While you are attempting to eliminate tear out and are at the stage of the last few cuts to the desired design, rub into the imperfection area warm water and make a few light cuts. If this does not work, use a warm water/dish soap (50/50) mixture or a light brushing of wax or oil and make those final refining cuts.

LEFT: A warm water rub used before a final scrape cut
Right: The results of two scrape cut passes after a warm water rub

Conclusion

I have tried to show a few routes and methods to work with soft and punky timber, but despite our best efforts things can still not come out right. Remember, work as safely as you can and always within your ability limits. If imperfections still exist and you are not pleased with the look at the end of the project, throw the darn piece of wood in the fireplace! Life is too short.

In the next issue we will explore further looking at other imperfections one might encounter. ●

The rough turned bowl before hardening and final turning

The finished bowl and its sister after hardening and turning

TORMEK® **T-8** MADE IN SWEDEN

THE BEST WAY TO SHARPEN YOUR TURNING TOOLS

WITH THE TORMEK SHARPENING SYSTEM you can give your turning tools the sharpest edge with the greatest accuracy. In fact, it is perfect for sharpening your other tools too. The Tormek T-8 gives you access to the wide range of Tormek's jigs and accessories so you can build your own sharpening station according to your individual needs.

- ✔ **Unbeatable precision**
- ✔ **Exact replication**
- ✔ **Fast sharpening**
- ✔ **Great versatility**
- ✔ **Superior sharpness**
- ✔ **Safe and quiet**

*Customise your **Tormek T-8** with your choice of jigs:*

*With the **SVD-186** jig you can easily follow curved shaped tools and V-tools.*

*With the **SVS-50** jig you can sharpen wider tools of various shapes, e.g roughing gouges.*

*The **SVS-50** also makes it easy to sharpen skew chisels.*

*The tool rest **SVD-110** is ideal when sharpening turning scrapers.*

Tudor trenchers

Chris Grace makes some replica Tudor trenchers for a community museum

A history society that runs a Tudor Cottage in Southwick, Sussex asked me to turn them a set of Tudor trenchers for a display. Research showed there are few surviving wooden trenchers from that period, except those found on the *Mary Rose* in Portsmouth – obviously we needed a field trip.

Mary Rose trenchers varied in size, shape and decoration; many having the mark of their owners. Therefore a 'set' of trenchers, as we would understand a set of plates, would probably not have existed.

Rather, such items would likely have been acquired over a period of time from different sources. I decided to make the trenchers with different designs to reflect this. These needed to be historically accurate, therefore I chose a wood likely to have been available, sycamore (*Acer pseudoplatanus*), and I used a ring-type tool to simulate the tool marks of the hook tool that would have inevitably been used with a pole lathe to make the original items.

When I make similar bowls intended for daily food use, I typically use beech (*Fagus sylvatica*). These are fully sanded and I am careful to not create any food traps or areas that would be difficult to clean when adding decoration. This makes them more practical, though a little less 'authentic'.

PHOTOGRAPHS BY JEAN GRACE

The finished trenchers on display

PLANS AND EQUIPMENT

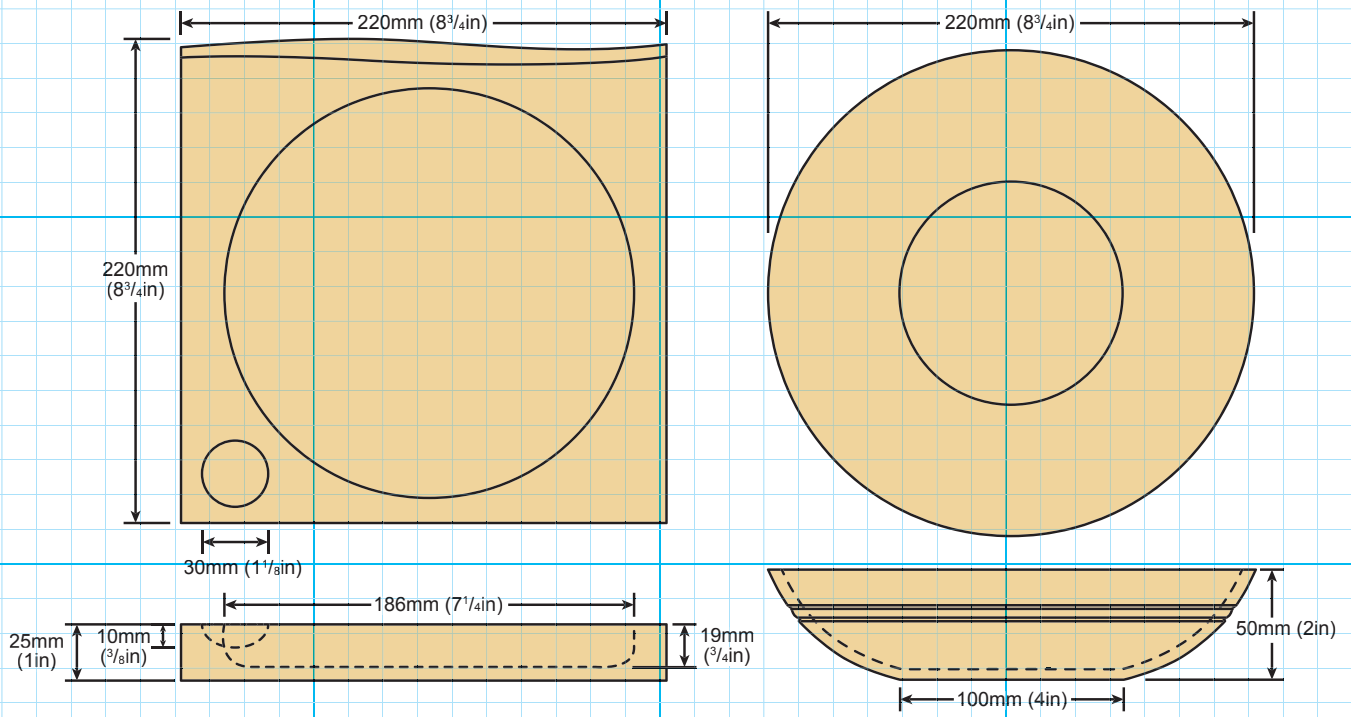
EQUIPMENT AND MATERIALS

Tools

- Saw
- Bowl gouge
- Dovetail scraper
- Ring tool or equivalent
- Point tool
- Carving gouge and/or knife

Materials

- 220 x 220 x 50mm for each trencher in sycamore
- Dark wax



1 When selecting material from a larger slab of wood, you may find it preferable to cut it into pieces that are easier to handle initially with a chainsaw. When cutting wood with a chainsaw, use a suitable platform to prevent the saw touching the ground, like an old pallet. Clamp smaller work for sawing. Always use the necessary PPE and ensure there are no distractions.

Round trenchers

2 First, determine the centre of your blank, taking into account any defects and whether they can be turned away. I used a home-made centre finder template, but you could use a compass, ruler or a tape measure.


1


2


3


4


5


6


7


8


9


10

3 Mark the maximum circle obtainable on the blank with a compass; this double checks that the centre is marked correctly.

4 Chop the corners off the blanks to ease the initial stage of turning. I find this much quicker and easier than cutting circles; the additional waste turns away very quickly.

TOP TIP

Make a centre finder from a piece of polycarbonate with a hole drilled in the middle and concentric rings scribed with the point of a compass; colour every third ring for easy reference when centring blanks.

5 When using a blank with one flat-ish face, drive it with friction by pressing it against a cork faceplate with a revolving centre for initial truing up and shaping. Form a chucking spigot initially using a bowl gouge. Make sure the surface that the chuck jaws will bear on is flat and it is sized for your chuck.

TOP TIP

A cork faceplate is a great way to drive a turning with a flat face. You can make one from a scrap of planed hardwood, add a chucking spigot, true it up and stick on cork. Press the work firmly against the cork faceplate with a live (rotating) centre.

6 Next, cut an accurate dovetail on the spigot using a specially ground scraper – most dovetail chucks use 75°. Do the initial shaping with a medium sized bowl gouge.

7 Use appropriate eye/face protection, which is essential and makes the turning process more comfortable. A home-made air-fed helmet is lightweight, comfortable and provides fresh air; also, it never gets fogged-up.

8 Reverse the bowl and grip it in your chuck to turn the inside. As I'm most comfortable using my modern bowl gouge, I started the hollowing process with that tool.

9 Check periodically to determine depth using a gouge and thumb sighting across the front of the bowl. Transfer the gouge to the outside of the bowl and line your thumb up with the top to judge how much further there is to go.

10 Having formed a hollow, I then switched to my modern ring tool, which is the closest approximation I had to the hook tool that would have been used on the originals. We want to leave some tool marks similar to original examples, like the ones I had seen on *Mary Rose* trenchers.

11 Before cutting away too much of the inside, shape the edge of the bowl by the rim to ensure there is still sufficient stability to enable chatter free cuts. Having confirmed I could achieve the effect I had visualised, I did most of the hollowing with my bowl gouge, before taking finish cuts with the ring tool.

12 As the bowls were intended to be historically accurate as well as practical, they need to have features similar to those that would have been found on trenchers from the Tudor period. Create some decorative grooves on some of the platters with a point tool, similar to those on the *Mary Rose* platters.


11


12

TOP TIP

When making trenchers for modern daily use, ensure the wood is not spalted at all; typically I use beech. Also ensure that any decoration will not become a food trap.

13 The chucking spigot can be reduced at this point, down to a small nub, then remove the remaining nub with a small flexible fine-toothed pullsaw and finish off with a carving gouge.


13


14

14 To colour the wood and simulate aging, use a solution of Van Dyck Crystals in water. Depth of colour is easily controlled with this method, so you can build it up and stop when you have reached the desired result.

15 As many of the bowls found on the *Mary Rose* had identifying marks from their owners, I took the platters to my carving group and asked them to add something unique to each, reminding them that they were likely to be illiterate, so a pictorial mark will be fine.


15


16

DID YOU KNOW?

While most of the marks were complex (like pictograms), one of the Mary Rose trenchers had a name and the word 'cook' on it.

16 Finally for these bowls, apply a coat of sanding sealer and some wax to preserve their look and feel as they would inevitably be handled regularly.

Square trenchers

17 The process for creating the square trenchers starts a little differently; create one flat edge perpendicular to the face of the blank with your chopsaw.

17


18

18 Then use this 'squared' edge to enable you to re-saw the blank into two equal halves on the bandsaw.


19

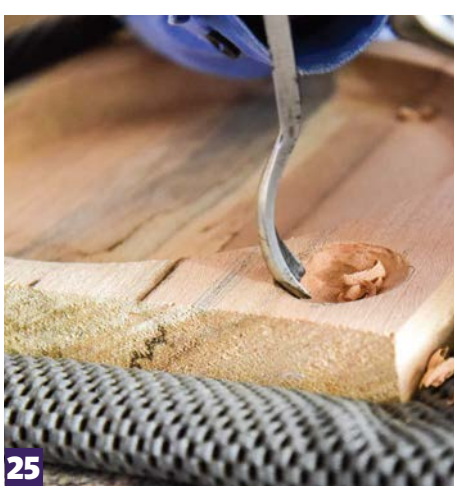

20


21


22


23


24


25


26

TOP TIP

When re-sawing a large blank on your bandsaw it's essential it has a flat face or two adjacent faces for stability. Press the blank against the fence with a push block for safety.

19 As there will be a salt recess in one corner, the blank needs to be laid out carefully. Draw on the 'bowl' and salt recess to ensure the proportions will look right when turned and carved.

20 Having determined the centre of the bowl, press it against a cork faceplate with a live centre. This has the benefit that there will be no chucking marks to remove later. Check that it spins true, clear of the toolrest and is lined up accurately to cut the central 'bowl'.

21 Although the tailstock restricts access, you can use a combination of pull and push cuts to remove most of the waste. First use pull cuts towards the outside of the 'bowl', followed by a series of push cuts to flatten the middle.

22 A quick skim of the outside edge of the top with a large radiused scraper smooths it sufficiently for this trencher and removes my modern bandsaw marks.

23 Hold a small square against the cut surface so you can ensure the bottom of the 'bowl' portion is flat, as required for this style of trencher. Having turned the 'bowl', pare the cone used to press the trencher to the cork faceplate to a minimum.

24 Carve away the nub with a long bent carving gouge that is almost flat.

25 Then, carve the salt recess using a curved short bent gouge. Just keep going round, starting near the centre and moving towards the outside of the recess until the appropriate depth has been achieved. Clean up any tool marks as best you can with the same tool, but not to completely eradicate them. Finally colour, wax and mark the trencher as before.

The finished trenchers

26 The 'set' of trenchers were delivered to a small heritage centre in Southwick to be part of their permanent display. Since completing these I have received further similar commissions, together with requests for trenchers in this style for daily food use. ●

TOP TIP

If you need to try a different technique to achieve a particular finish, try it out while you have plenty of wood to play with.

Three early 20th-century spindle gouges that could have been made in 1750. Ernie used them for his presentation at the 2007 Williamsburg Eighteenth Century Furniture Conference

Evolution of the spindle gouge

This month, **Ernie Conover** explains why he believes mastery is the gateway to controlling all tools, concentrating on the spindle gouge

Grubstake is an American word from the 1848 California Gold Rush era; it is the amount of supplies necessary for a prospector to commence prospecting. Grub is an American vernacular for food, and a grubstake was often given in exchange for a percentage (stake) of any gold found. Besides victuals, a grubstake included the necessary tools for the task. I have always considered a spindle gouge to be the grubstake of a woodturner. Mastery of this one tool is the portal to proficiency with all of the other turning tools. Confined to purgatory with a lathe and one tool, I would request a spindle gouge. Indispensable for spindles, it will also perform many of the tasks that the rest of the tools will perform; albeit that the turner must be skilled. Often it does not do the task quite as well as a dedicated tool, but it gets the job done. Purgatory or not, a spindle gouge is a hell of a tool.

PHOTOGRAPHS BY ERNIE CONOVER

Today's spindle gouge

The progenitor of today's spindle gouge is shown and described in Moxon's 1703 edition of Mechanick Exercises (sic). Any turner today would be able to pick one these gouges up and use it handily, and until the 1970s it would have been made in the same way. Hot forged from carbon steel, it was ground to a fingernail. In Moxon's time a smith would have hand forged the tool, but by the 19th century they were mechanically forged. A white-hot steel bar was placed in a forging press with a set of dies that were the outside shape of the tool. They press closed and hot formed the tool, but also aligned the grain structure in a most agreeable way. Carbon steel made a very fine tool, the only drawback being that if you heated it too much it lost its temper. This was not a problem until the early 1800s, because there were no high-speed grinders. Starting in the Great Depression of the 1930s, Sears & Roebuck, Montgomery Ward and other large retailers in America started to purvey spindle gouges that were made by hot forming a flat bar into a most gentile arc. These gouges have largely been superceded in design by modern variants.

High-speed steels are more resistant to overheating than carbon products during grinding. When you open a door another often closes, high-speed steel does not forge as well as carbon, therefore machining is more common on this type of steel. Hence, modern spindle gouges are machined from a length of round high-speed steel bar stock. This changes the bottom half of the profile slightly. It is a perfect half circle, whereas our forged gouge is an arc. If anything, this works better than the arc profile in my opinion, but, mainland European turners still like the older-style forged profile gouges.

All spindle gouges, forged and machined,

have a flute that is a radius of a circle. The Hamlet Gouge shows an almost perfect manifestation of the traditional spindle gouge made from bar stock. Traditionally most spindle gouges had a thumbnail grind about like a workingman's digit of the same name. In the 1980s, many of us started lengthening this shape while keeping a 25–30° inclusive angle at the tip. This made it quite pointed – what I call a 'high society grind' for it looks much more like a lady of leisure's fingernail. Subscribing to this camp since the 1980s, I grind mine prodigiously long. The traditional spindle gouge had a definite limit to how steep you could grind the tip and not get a ragged junction with the edge of the flute at the flanks.

In the 1990s Gerry Glaser introduced his detail gouge. It differed from the traditional gouge in that the flute is still a radius of a circle, but is milled much higher in the bar. This allowed the grinding of a 25° tip and much steeper angles on the flanks without a ragged junction with the flute. Jerry sent me one of his first ones and I am still impressed with this tool's functionally. Most of the tool companies make detail gouges these days.

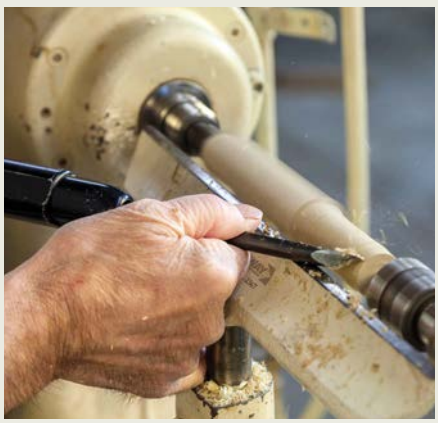
The combination gouge is a spindle gouge with the radial flute milled further down in the blank. They cannot be ground to an angle much less than about 40° before the grind becomes ragged at the flanks. Due to the cutting edge pofile able to be created on them, they will not – in my opinion – leave the clean cuts in spindles that a true spindle or detail gouge will and will not reach deep in between coves and also tight narrow coves. I find another use for them too in that, they will faceplate turn within reason. They are fantastic for a taking that final skimming clean up of the outside of a bowl. This usage is contentious to some, but note I said final clean up, not rough shaping, so if sensitvely used it can work well. If the overhang of the tool over the rest is not too great, then they can work well.

Four modern spindle gouges made from HSS bar stock. (*L–R*) A standard Hamlet spindle gouge; Sorby, Henry Taylor, Crown Handtools and many more companies make very similar gouges; a Jerry Glaser detail gouge which has a shallower flute and was his innovation; a Carter and Son detail gouge made from M42 HSS; a Thomson Tool made from powdered steel

A combination gouge has a flute milled deeper in the round bar and cannot be ground to as long an angle. Great for cleanup cuts in faceplate work, it does not turn spindles as well as a true spindle or detail gouge

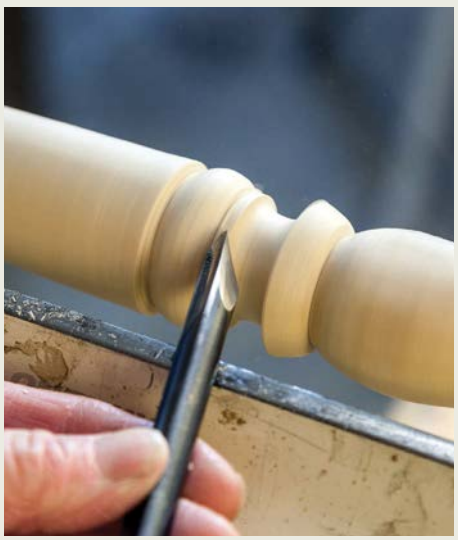
USEFUL CUTS WITH A SPINDLE GOUGE

Rouging



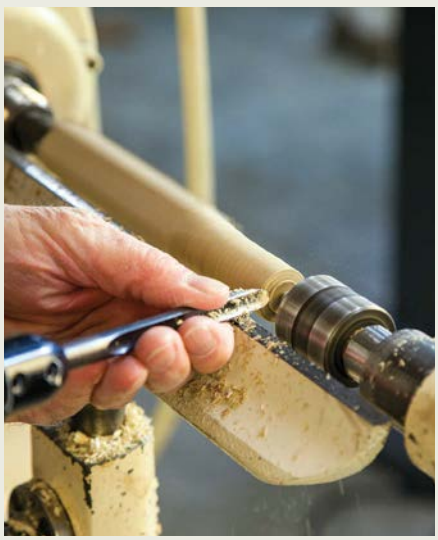
By angling the side of the tool so that the left or right side of the fingernail is parallel to the work, then rolling the tool until the bevel rubs and a cut is created, the tool removes wood aggressively. It is a great technique for pen turners because a large spindle roughing out gouge is clunky in miniature turning. This cut will also plane cylinders and gentle tapers about as well as askew if the tool is really sharp. The beginner will get the best results by dragging the tool but you may push it as well.

Cleaning up shoulders on a bead



Rolling the tool left or right allows the edge just behind the tip to cut the shoulders of a bead (almost) as well as a long corner chisel or beading and parting tool. It will get into a tighter space either of these tools will and finish is just as good. Adding almost delineates the gouge from the long corner and beading/parting tool. As written they are included.

Clean the end grain on the outside and inside rim of a bowl

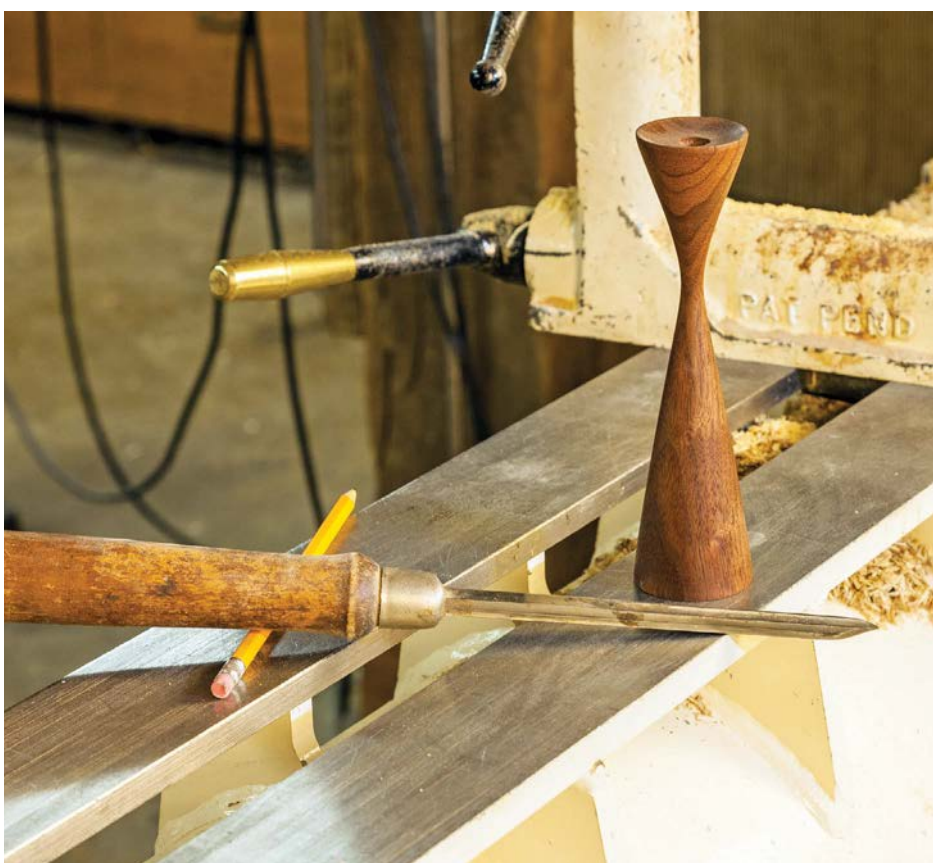


With the bevel rubbing behind the nose, a spindle gouge cannot be dragged in by the reverse grain twice per revolution. A honed edge leaves a spectacular surface in the tool's wake, saving a lot of sanding. These cuts are much easier with a combination gouge than a true spindle gouge.

Rudy Osolnik

Rudy Osolnik was a mentor to many aspiring woodturners in the 1980s and 90s, myself included. He devised a spindle gouge with the flute milled in a rectangular bar, which he dubbed 'The Rudy Tool'. He pressured all of his new students to buy one and used it with aplomb in making thousands of his signature candlesticks. He roughed the basic opposing cone form using it as in roughing. He then sliced through the end grain on the top and bottom. The rectangular form made starting this clean up cut without screw threading much easier. Dave Hout, Nick Cook and I used to quip about the tool when out of Rudy's hearing. Cook would say: "The Rudy Tool sure is a fantastic gouge!" Hout would reply: "Yes it is – in Rudy's hands!" While Rudy almost claimed that it cured the common cold, in our hands it was mediocre at best. It worked good on the one design; candlesticks, but did not roll beads or coves well at all. Turning was well worked out by Moxon's time and we are mostly rediscovering this today.

Well, if we ever meet again we can compare gouges while we turn away the eons. Time passes quickly when you are having fun. ●



Rudy Osolnik devised his 'Rudy Tool' for making candlesticks, which he churned out by the thousands. It was a spindle gouge flute in a rectangular bar. While he used it well the rest of us struggled with it

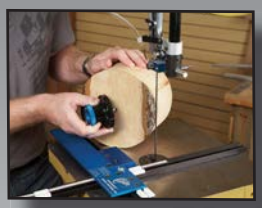
INNOVATIONS MADE IN THE USA FOR OVER 85 YEARS

The AXE™
Carbide Woodturning Tools

NEW

Setting the new standard for carbide woodturning tools.

Three full size tools available now. More coming soon!



ACCURIGHT®
CENTER MASTER
Blank Creation System

MULTIREST®
Vessel Support System

HOLLOW ROLLER®
Vessel Turning System

PERFECT SPHERE™
Sphere & Bowl Turning System

STRONGBORE™
Modular Boring Bar

International Dealers

Austria/Europe	Germany/Europe	Australia	Russia	Norway/Sweeden	Japan
Neureiter Maschinen und Werkzeuge	steinert®	GREGORY Machinery	ITA	GUSTAVSEN	OFF
www.neureiter-shop.at/	www.drechslershop.de/	www.gregmach.com	www.jettools.ru/	www.gustavsenas.no/	www.off.co.jp

MADE IN U. S. A.

Carter carter products®

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

Innovative Solutions for all your Woodworking Needs

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

Lidded bowl with finial from half a log

Andy Coates looks at a commonly made object and deconstructs it to make something more interesting

PHOTOGRAPHS BY ANDY COATES

Once in a while you obtain a log of something special. It might be the grain, colour, or species that makes it 'special', but whatever it is that distinguishes it, you are often presented with a conundrum; use it immediately in the excitement of acquisition, or save it? I have a laburnum (*Laburnum anagyroides*) trunk that qualifies as a log, and as such it is not something I would be comfortable using recklessly. As much of the wood as possible ought to be used to get maximum use from what is becoming a rare commodity.

There is something I regularly turn that is perfect for a project with such constraints: a lidded bowl from a single blank, where even the finial comes from the same block of wood. I prefer to use a wood with some character, striking or at least obvious, grain and for preference some distinction between heart and sap wood; all these add to the finished object. Due to the method used to produce the lid the grain will align upon finishing and if you can manage to incorporate the sap/heartwood boundary, even better as this adds to the visual dynamic considerably. This is also a useful methodology for expensive exotics as it reduces waste dramatically.

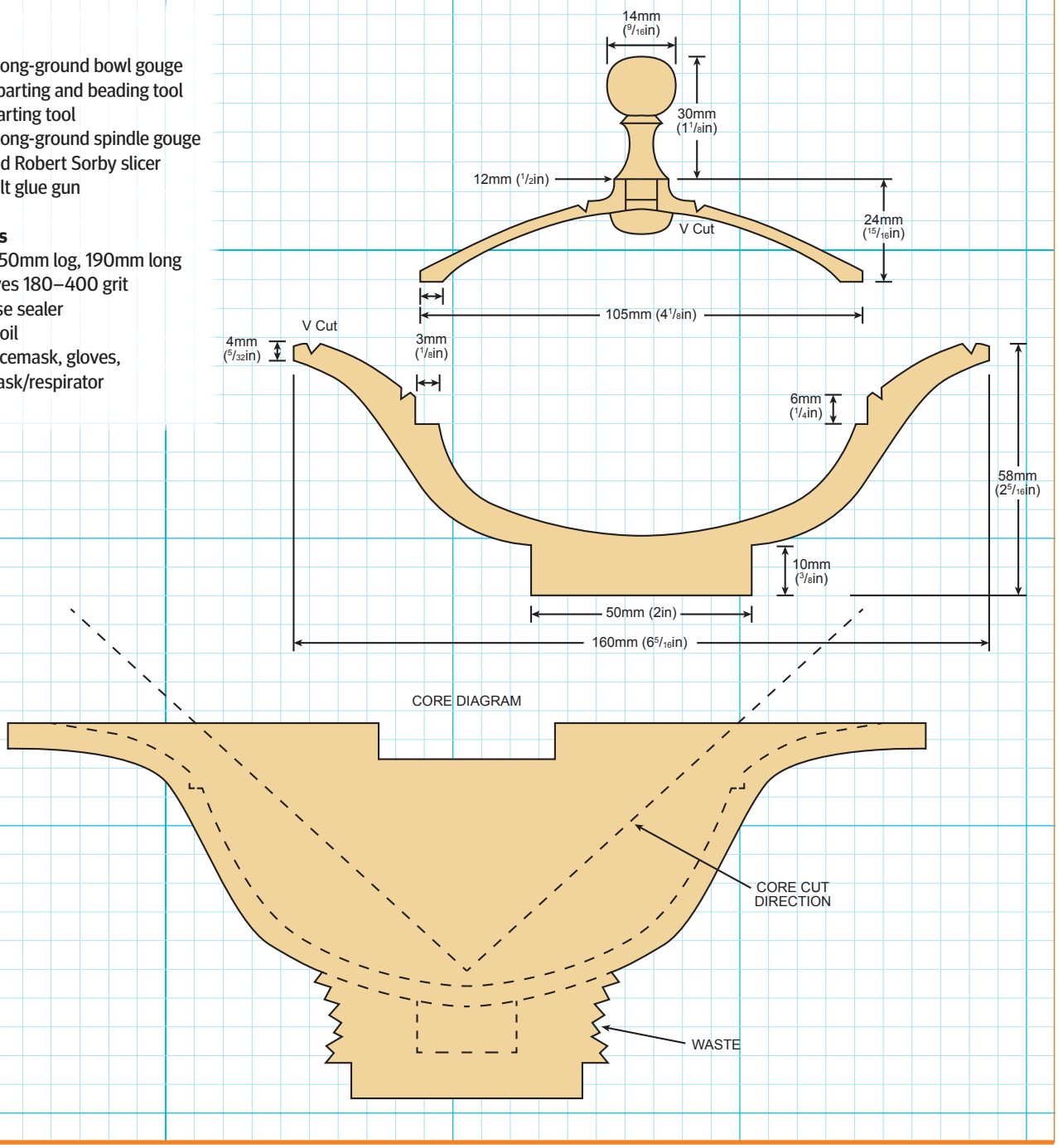
This is also a useful methodology for expensive exotics as it reduces waste dramatically, and negates the necessity for two expensive blanks when producing a lidded bowl. You might also consider it useful for simply making the most of a bowl blank by producing a second blank for a different project; it not only makes financial sense, but also reduces the amount of shaving you have to dispose of at the end of the day.

The coring method I use here is by no means the only method available, but to my knowledge there is no dedicated system for sub-150mm blanks such as is available for larger coring jobs, and whilst not entirely ideal, it is an adequate method which does produce useable secondary blanks. Keep in mind the stresses, on both your body and the blank, take things slowly, withdraw from the cut regularly to remove shavings, and all should go well.

PLANS AND EQUIPMENT

Tools
- 10mm long-ground bowl gouge
- 10mm parting and beading tool
- 2mm parting tool
- 10mm long-ground spindle gouge
- Modified Robert Sorby slicer
- Hot-melt glue gun

Materials
- Half a 150mm log, 190mm long
- Abrasives 180–400 grit
- Cellulose sealer
- Danish oil
- PPE: Facemask, gloves, dust mask/respirator



1 Mark out the disc on the half log. If you have a log with heart and sapwood try to ensure you include the sapwood in the disc. Then mark as many square blocks as you think you can achieve (they'll always come in handy). Take care cutting them on the bandsaw. You need a disc and two small blocks 25 x 25 x 65mm.

2 Mount the disc on a screw chuck held in the four-jaw chuck. Using a long-ground bowl gouge rough the disc down to a cylinder and then clean up the face of the blank. Be wary of removing the sapwood at the headstock side edge of the blank. Aim for a finished disc diameter of approximately 160mm.


1


2

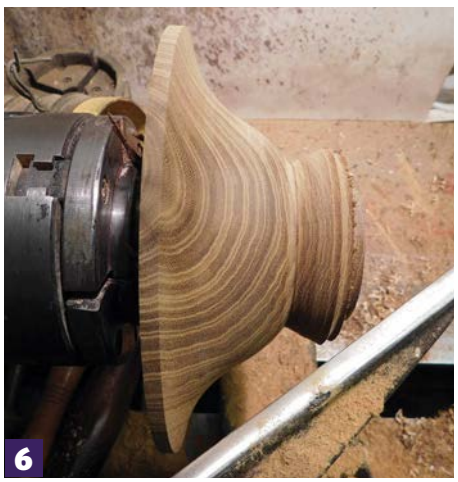

3


4

3 Using a 10mm parting and beading tool, clean up the first 10–25mm of the inner face at the headstock side of the blank. This will provide a reference surface for shaping the bowl. Mark 6mm in from the finished surface to provide a rough marker or finished rim thickness. The actual rim of the bowl will come out around 4mm.

4 Begin removing waste from the tailstock-side corner of the blank, working down to produce a tenon for your chuck. If you have a revolving ring centre use it to mark the centre of the blank as a reference for later. Ensure the tenon is accurately sized.


5


6

5 Begin shaping the bowl, working from the rim mark you made earlier. The shape is a long slow ogee with a sharp return to the base. Set the shape in the upper half and carefully sweep the curve back towards the foot. Leave the last section as waste to support the next stage.

6 When you have the shape set, use a sheer scraper to refine the shape and surface. You will return later to complete the last section. Abrade the exterior shape to 600 grit, seal with three coats of cellulose sealer, de-nibbed between each coat.


7


8

7 Remove the blank and re-mount in the chuck jaws. Clean the face surface up and make flat using a push-cut to centre. Mark and cut a recess 50mm diameter and 5mm deep to suit a set of O'Donnell jaws. Make a pencil mark about 20mm in from the rim.

8 Using a 'slicer' type tool (I use a modified Sorby slicer), begin to core the middle from the blank. Aim to take a cone from the 20mm mark that will conclude approximately 10mm above the ultimate base of the inner bowl (see diagram). Cut slowly and withdraw to clear shavings regularly.


9


10

9 As the slicer gets close to centre you will hear a change in the noise, indicating the stub is getting close to parting off. At the this point you can stop coring and apply firm pressure on the edge of the core to snap it out of the bowl. Support the back of the bowl with fingers to resist the pressure.

10 Remove the chuck with the bowl still in place and mount a second chuck with medium O'Donnell jaws, or swap jaws if you only have one chuck. Begin to turn a shallow dome on the top and cut a 45mm tenon on the blank. Clean up the edge to a flat surface. Abrade to a finish and seal as before.

11 Before you proceed, measure the lid diameter and check its ultimate position in the body of the bowl. It should be around 105mm diameter and leave a bowl rim of approximately 28mm. Reverse the lid in the O'Donnell jaws.

12 At the face edge leave a flat 3mm wide, then using a 10mm spindle gouge turn the inside of the lid aiming for a 4–5mm wall thickness. You will cut through the screw chuck hole. Clean up the hole edge leaving a parallel side to it.

13 With the tip of the 10mm parting tool cut a V cut at the edge of the flat and scorch it with Formica. Abrade the interior of the lid to 600 grit, apply three coats of cellulose sealer, de-nibbed between coats, and buff to a high sheen.

14 Remove the lid and second chuck (or replace original jaws and carefully remount bowl ensuring it runs concentrically) and replace first chuck holding the bowl on to the lathe. Re-measure the lid diameter and transfer the dimension to the interior of the bowl. You can use a pencil line or a scribed line, but ensure it is accurate.

15 Using a small parting and beading tool, cut a slightly dovetailed recess 6mm deep and 3mm wide to accept the lid. The dovetailing provides for incremental adjustment to make a tight fit. At this stage you want a tight fit. With the lathe stopped, keep testing the fit as you go.

16 If you are uncertain about completing the lid unsupported you can apply four small spots of hot-melt glue around the rim of the lid, or conversely bring the tailstock up for light support, but this will restrict the turning, and will need to be removed for the last stage.

17 Using a 10mm spindle gouge complete the shaping of the top of the lid. Take light cuts with a freshly ground tool, working from the centre towards the rim to avoid 'popping' the lid out. Leave a raised boss in the centre and when the screw chuck hole is revealed clean the inside face to match the previous cuts.

18 When the lid is completed, abrade and seal as for previous sections. I added another V cut and scorch mark at the edge of the boss. Now use a 10mm spindle gouge to complete the bowl rim, sweeping the convex curve down to the recess edge neatly. Abrade and seal as before.

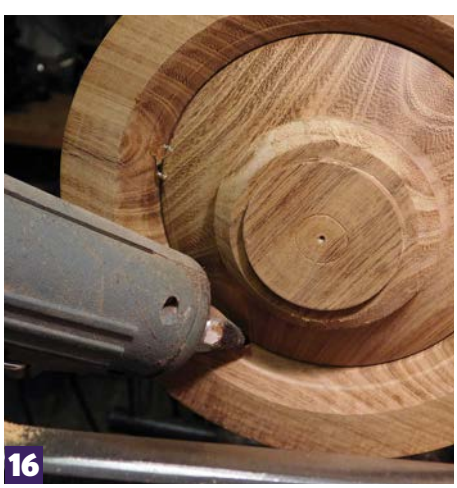

11


12


13


14

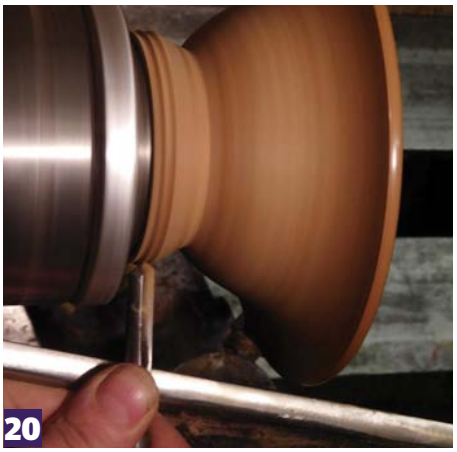

15


16


17


18


19


20


21


22


23


24


25


26

19 Remove the lid from the bowl. Now hollow the interior of the bowl using a 10mm bowl gouge. Be careful to leave the 3mm internal recess. Aim for a smooth, continuous curve that ends in a curve and not a flat. Sheer scrape, abrade, and seal as before. Adjust lid fit with abrasive if required.

20 Bring the toolrest around to the back of the bowl. Using the spindle gouge, for ease of access, complete the shaping of the last portion of the bowl. Sweep the ogee in to produce a pleasing flow from the rim. Keep checking wall thickness as you work.

21 Work down to terminate at a raised foot, 50mm diameter. At this point the foot can be deeper than required to provide access. Sheer scrape the surface you have turned, abrade to 600 grit, and seal with three coats of cellulose sealer.

22 Remove the bowl from the chuck and mount a soft-faced jam chuck. Remount the bowl using the mark left earlier by the revolving ring centre to centre the bowl on the jam chuck. Turn the tenon away and clean up the surfaces.

23 Reduce the depth of the foot to 10mm, and turn a shallow concave surface on the base. Abrade and seal as previously, ensuring the two surfaces are blended flawlessly.

24 Mount one of the small square blocks in some pin or engineering jaws. Turn a finial 30mm long and 14mm diameter. Put a 2mm tenon on, to the diameter of the hole left by the screw chuck after you cleaned it up. Abrade and seal as previously, then part off.

25 Mount the second small square in the engineering jaws. Turn a small 15mm diameter button with a 2mm tenon to the diameter of the screw chuck hole. Abrade and seal as previously, then part off.

26 Using CA glue fix the button and finial in place, ensuring the grain direction is aligned. You will notice that despite being essentially upside down, the grain in the lid will align almost perfectly. This is a pleasing by-product of coring the lid in this way. Now you can oil the whole thing and sign the base. ●

Making the most of it

Maurice Tebbutt and **Keith Drew** talk us through the maths and making of a segmented bowl

Sometime during summer 2015 a 'surprise package' arrived in the post. Given its size – about 20 x 15 x 5cm, it seemed surprisingly heavy and inspection showed that it was a block of something like teak (*Tectonia grandis*) or oak (*Quercus robur*). The letter inside the package revealed that it was a gift from a friend, who lives on the Falkland Islands and knew of my interest in woodturning. She indicated that the timber was not just 'any old block of wood', but a part of an old sailing ship, called the *Vicar of Bray*, which had been rotting away there, more or less steadily, aided by the frequent storms to which the Falklands are subject, until she finally disappeared in 2015.

A bit of internet research showed that the ship was launched in 1841 and had plied her trade for some time in various parts of the world including involvement in the 'Gold Rush' before foundering on the Falklands in about the 1880s. All of this reinforced my intrigue with the block of wood and I resolved to try to do something with it in keeping with its venerable history. Here is the original block that was contaminated with tar and showing signs of rot, which was not altogether surprising for timber which was about 170 years old and had potentially spent much of that time in salt water.

I thought that a 150mm shallow dish or even a plaque didn't fit the bill and also involved turning away and losing a substantial part of the timber in the block. Ideally what I wanted was to preserve as much of the block as possible; to find some means of 'bulking it up' and also present it attractively. Eventually it occurred to me that segmenting could meet my requirements. It can, and often does, involve combinations of a number of different colours of timber, hence meeting the 'attractiveness' requirement, while coincidentally achieving the desired bulking up. This would seem to solve the problem, except that I had little idea how to do it. Fortunately, there are a number of members of my woodturning club, Worcestershire Woodturners, who are skilled in the techniques required, one of whom is Keith Drew.

The block of wood we worked with

PHOTOGRAPHS BY MAURICE TEBBUTT

PLANS AND EQUIPMENT

EQUIPMENT AND MATERIALS

Tools
- Bandsaw
- Hotmelt glue gun
- Adhesive
- Bowl gauge
- Scraper
- Clamping system

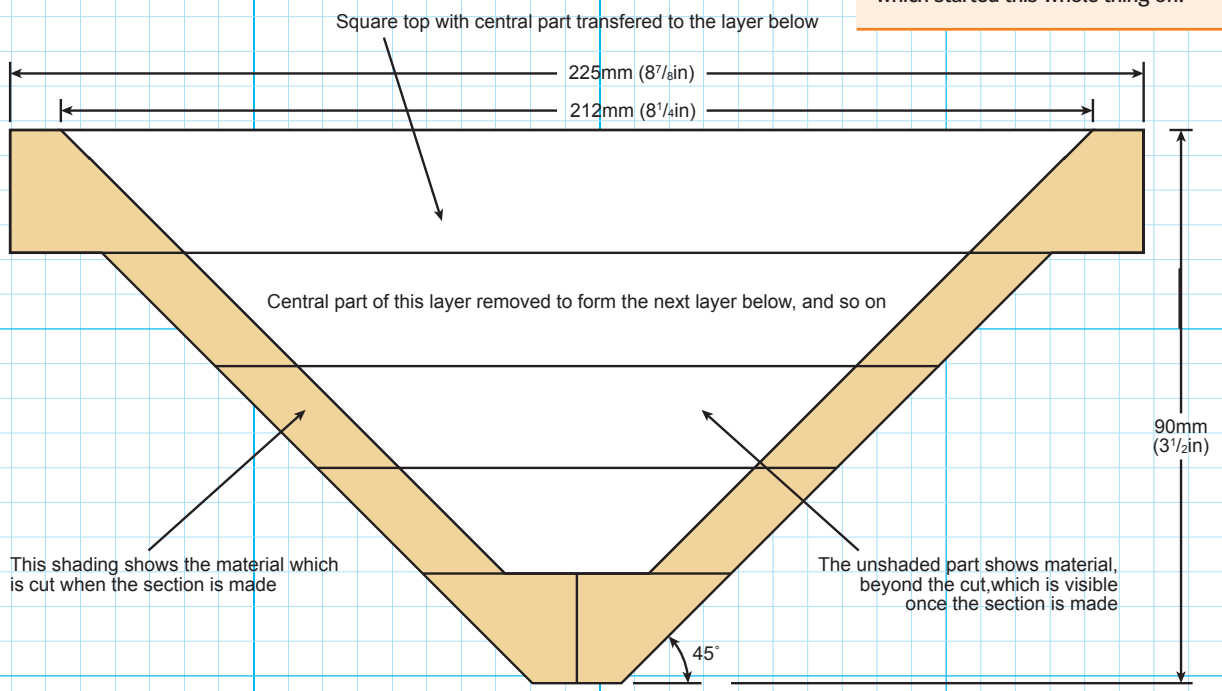
Materials
- Contrasting timber to the block
- Plywood

REFERENCE

The Art of Segmented Wood Turning: A Step-By-Step Guide by Malcolm J Tibbetts, Linden Publishing

ACKNOWLEDGEMENT

Thanks are due to Louise Birmingham, of Stanley, for the gift of the piece of wood, which started this whole thing off.



The maths

The main characteristic of Keith's suggested bowl design was a simple shape, which led to ease of construction while also minimising the wastage of material.

The diagram also shows that the circular edges of the slices are at 45° to the horizontal (and vertical, of course!). It may also be apparent that the combination of the thickness of the slices and the angle of cut (in this example 45°) means that the rings can be cut in succession from one board, and that they will sit on top of each other to form the shape shown. This unusual method of constructing the bowl opened the way to being able to determine whether it would be feasible to construct the bowl from the block of wood which we had available. The greatest volume of available timber, which we can call 'A', was 20 x 15 x 5cm or 1500 cubic centimetres. So, A = 1500.

We decided to make the initial board, i.e. the top of the bowl, about 20cm square. Making a board t cm thick would require 20 x 20 x t cubic centimetres of timber. We called this 'R', so R = 20 x 20 x t.

If we assumed that we would just use the

Keith with an example of the kind of bowl he suggested (a design originated by Malcolm Tibbetts)

timber from the block and could perform the redistribution without any waste, the two volumes would be the same. i.e. R = A or 1500 = 20 x 20 x t (1) and t = 15/4 or 3.75cm.

So, if our assumptions were correct then the task would be eminently feasible, producing an initial board, and hence also the subsequent layers, almost 4cm thick.

However, we knew that the whole of this volume would not be available for one of two possible reasons; either because of wastage during the conversion process, which would happen in any case, or because of the effect of the rot on the block. The direct effect and indirect effect of the rot in our block meant that only about one third of the original block (which we can call the 'conversion fraction') would be available for use, this would give a volume of A/3 or about 500 cubic cm. Equation (1) now becomes 500 = 20 x 20 x t (2) So t = 500/400cm, or about 1.3cm).

So, if it turns out that only a third of the block is usable, it would be possible to produce a board with a reasonable thickness, so that the whole fabrication process would be feasible.

However, it will be clear that this is not the whole 'story' since the 'contrast' timber, which we have ignored so far, would also contribute to the amount of available timber, and we did not have a reliable method of determining the conversion fraction.

Although this may appear to be very complicated, Keith's solution was eminently simple – basically to start at the end!

He decided that he wanted the 'bowl' to be about 20cm square (as quoted in the calculation above) and to sit about 9cm high. It was to consist of the top, together with four supporting layers (five in all), which are cut in succession it from it so each layer would be 9/5 or 1.8cm thick.

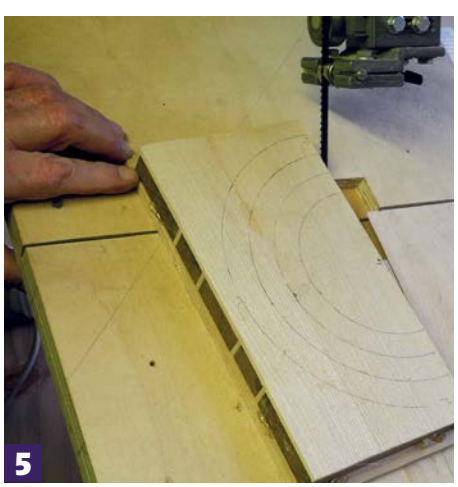
It will be clear that the bowl is constructed mainly from rings of timber, with a circular base and a topsquare with a circular hole.

1 Construct the layers from the 'block timber', together with strips of contrasting timber – in this case, ash (*Franxinus excelsior*) – which are destined to emphasise the pattern in the finished bowl, glued along the edges of the pieces of dark timber, using cramps to ensure good adhesion. Here you can see some evidence of rot remaining in spite of the careful selection process. Note that the available pieces of timber need to be utilised in such a way as to make two similar, rectangular boards, each one made as described above.

2 Glue a sheet of ash to one of the large faces of each board. You can see the ash face on the lower section in contact with the worktop.

3 Although the two composite boards we used were similar, they were not identical so when they were put together the central point did not lie on the joint between the two, as yours might not. This needs to be determined by measurement.

4 The circular bottom section, the circular rings and the square top section can now be drawn in.



5 It might be thought that the required 45° angle of cut can be achieved by setting a bandsaw blade at this angle and sawing 'freehand' along the marked lines. However, this is very difficult to do in practice and Keith found that the task was easier to perform and more successful by using a jig similar to that used by Tibbett. This effectively replaces the saw table of the bandsaw and allows it to be set at the required 45°.

TOP TIP

When laminating and using various types of adhesives, you may find that placing a thin sheet of plastic or shrink wrap underneath will help minimise the risk of any excess adhesive squeeze out bonding to other hard surfaces on which your laminations sit.

6 If you have cut things correctly you will end up with a group of segments which are produced by the process described above.

7 Now, the segments can be re-assembled in a number of ways, one of which reproduces the arrangement before the rings were cut.

8 Alternatively, each additional ring can be rotated through an angle before being glued. You can see the effect of rotating each ring 90°, for example. We used the arrangement in step 7.

9 To re-assemble the rings successfully, attach the top of the bowl first by 'tacks' of hot-melt glue to a thick hardboard disc which can be mounted on the lathe. The 'tacks' allow the fixing to be firm, and yet capable of being easily removed by melting the glue when the bowl needs to be removed. The disc becomes the basis of a clamping system in order to exert pressure on the remaining glue joints.

10 Once the glue has cured, the final stage is to clean up and finish the bowl surfaces. Treat the outside by mounting the circular disc referred to above, on the lathe using a faceplate ring or equivalent. To reduce the risk of a catch, clean it up using a negative-rake, slightly modified half-round scraper rather than a gouge, and keep the scraper sharp.

11 a&b Once the outside has been cleaned up, treat with the usual sequence of abrasives and a number of coats of finishing oil. Initially, this process produces a gloss finish, which can be sanded using fine abrasive to produce a 'satin' finish. Use the same technique to clean up the inside of the bowl, with two exceptions; another jig was required to hold the bowl firmly during this process, and the flat base inside the bowl was cleaned up using a square-ended negative rake scraper, while the flat top of the bowl was cleaned up using abrasive, glued to a flat 'sanding board'. Treat the inside of the bowl with coats of finishing oil, and sand like the outside.

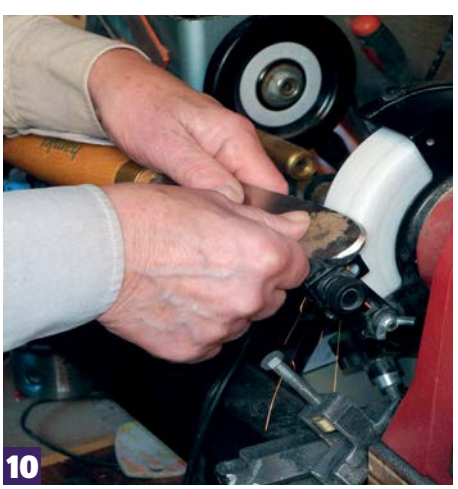
12 The finished piece. ●


6


7


8


9

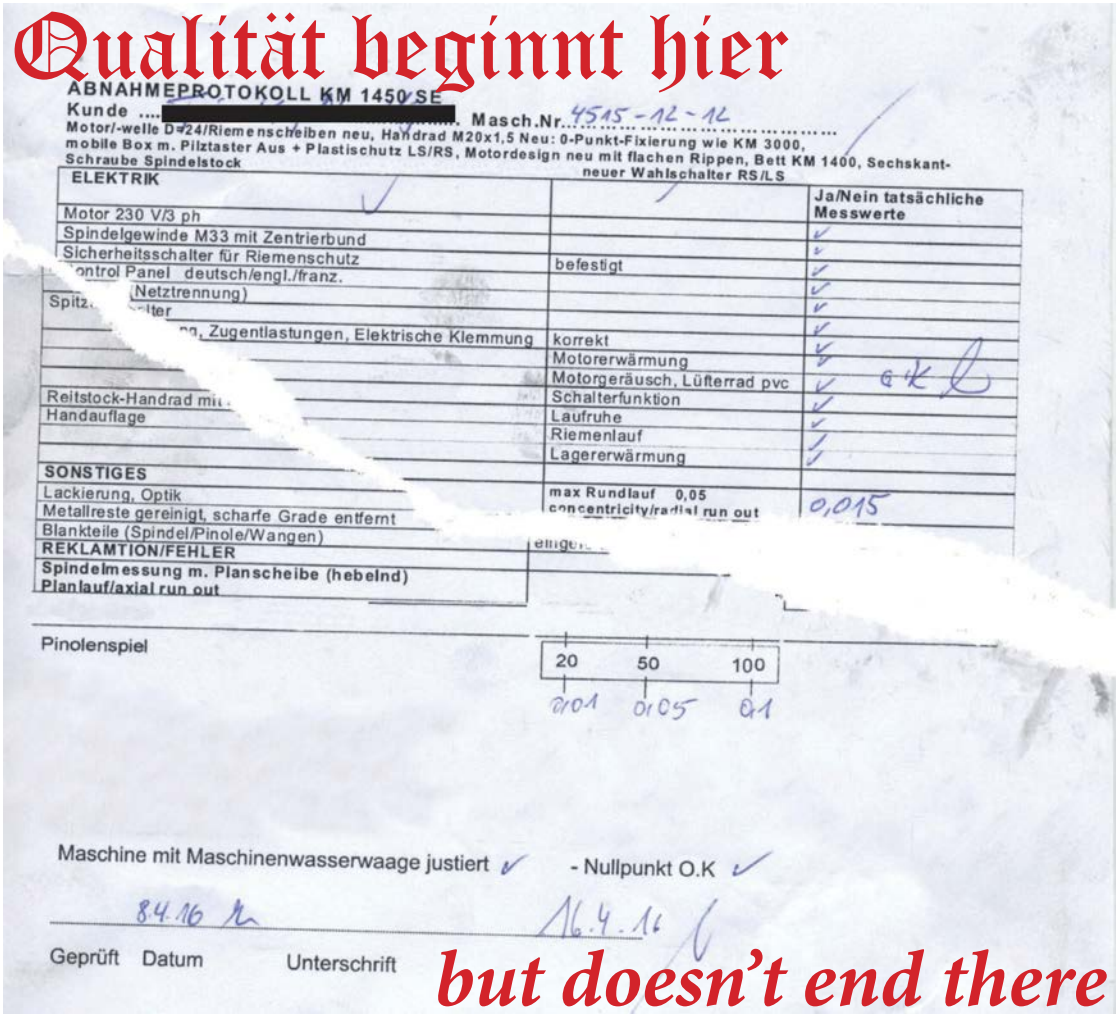

10


11a


11b


12

Qualität beginnt hier



ABNAHMEPROTOKOLL KM 1450 SE

Kunde .... [redacted] Masch.Nr. 4515-12-12

Motor/-welle D=24/Riemenscheiben neu, Handrad M20x1,5 Neu: 0-Punkt-Fixierung wie KM 3000, mobile Box m. Pilztaster Aus + Plastischutz LS/RS, Motordesign neu mit flachen Rippen, Bett KM 1400, Sechskant-Schraube Spindelstock neuer Wahlschalter RS/LS

ELEKTRIK		Ja/Nein tatsächliche Messwerte
Motor 230 V/3 ph		✓
Spindelgewinde M33 mit Zentrierbund		✓
Sicherheitsschalter für Riemenschutz	befestigt	✓
ontrol Panel deutsch/engl./franz.		✓
(Netztrennung)		✓
Spitz… …lter		✓
…ng, Zugentlastungen, Elektrische Klemmung	korrekt	✓
	Motorerwärmung	✓
	Motorgeräusch, Lüfterrad pvc	✓
Reitstock-Handrad mit…	Schalterfunktion	✓
Handauflage	Laufruhe	✓
	Riemenlauf	✓
	Lagererwärmung	✓
SONSTIGES		
Lackierung, Optik	max Rundlauf 0,05 concentricity/radial run out	0,015
Metallreste gereinigt, scharfe Grade entfernt		
Blankteile (Spindel/Pinole/Wangen)		
REKLAMTION/FEHLER		
Spindelmessung m. Planscheibe (hebelnd)		
Planlauf/axial run out		

Pinolenspiel

20	50	100
0,01	0,05	0,1

Maschine mit Maschinenwasserwaage justiert ✓ - Nullpunkt O.K ✓

8.4.16 16.4.16

Geprüft Datum Unterschrift

but doesn't end there

KM1400
from £1677

KILLINGER

Combine a thorough approach to inspection and quality control with sound engineering and you have the basis for a lathe that you'll be happy to live with - for a very long time. Every Killinger lathe is tested and tested again both during assembly and before despatch. And every Killinger lathe carries its QA check sheet showing every nuance of the lathe's performance. 'More than merely Quality', as they say at Killinger.

Come along to The ToolPost, see them and try them out. You'll be pleased you did - and you'll be pretty amazed by the quality and price, as we were.

Call or email for further details.

In the UK & Ireland, only from The ToolPost - specialists in the supply of premium quality woodturning equipment.

KM1500
from £2820

KM1450
from £2134

KM3000
from £5364

The ToolPost

Unit 7 Hawksworth, Southmead Industrial Park, Didcot, Oxon. OX11 7HR
01235 511101 • www.toolpost.co.uk

sharing expertise

VAT inclusive prices, correct at time of going to press

YANDLES SPRING SHOW

FRIDAY 7TH AND SATURDAY 8TH APRIL 2017

One of Britain's longest running Woodworking Shows, now with a new look.

A perfect day out for everyone from Professionals to the Hobbyists. Don't miss out on fantastic demonstrations, Master Classes and Show Offers from our top Manufacturers. Visit our Timber Self-Selection and treat yourself to some outstanding timber, bowl blanks and planking all at a discounted rate. Learn some new skills and see what new products are on the market and pick up some great deals.

Trade Stands with show promotions and offers

Outstanding selection of timber with special Show Offers

Visit our Hobby Shop, Gallery, Café and Refreshment Marquee

Free parking and entry

Times: 10am - 5pm Fri

10am - 4pm Sat

For further information check out www.yandles.co.uk

YANDLE AND SONS LTD

Hurst Works, Martock,
Somerset, TA12 6JU

Tel: 01935 822207
Website: wwwyandles.co.uk
E.mail: info@yandles.co.uk

ExoticBlanks.com

We have thousands of blanks, from commercial to that special Artisan creation, and carry pen kits from Berea, PennState, Dayacom and more!

ExoticBlanks.com - The one stop shop for all your pen turning creations!

hand tools and wood chisels specialist

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

All items in stock, ready for dispatch..
*unless marked otherwise

all prices inclusive of VAT

Tool Nut .co.uk

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

Kevlar Gloves (pair)
for only **£5.00**

Henry Taylor Decorating Elf Texturing Tool

Braces (50+ types)
from only **£12.00**

Natural Leather Chisel Rolls
10 pockets: **£17.50**
12 pockets: **£20.95**

Veritas Router
from only **£99.95**

Multi-Profile Japanese Sharpening Stones
280g: £15.00
1000g: £15.00
3000g: £17.00

Joseph Marples 'Trial 1' Mortice Gauge
for only **£43.00**

Henry Taylor 6-Piece Starters Carving Tool Set
for only **£79.99**

Veritas Plough Plane
from only **£134.00**

Veritas Scrub Plane
for only **£82.99**

Veritas Small Router
for only **£27.95**

Veritas Apron Plane
£69.95

Veritas DX60 Plane
from only **£139.00**

Veritas Miniatures

Order online today at
www.toolnut.co.uk

saws

SHARPENING

Plane & Spokeshave Blades / Parts

punches

Wooden Trestles
x1 **£44.00** each
x2 **£41.00** each
x3-9 **£39.95** each

OVER 90 DIFFERENT CARVING TOOLS

OVER 25 DIFFERENT CHISELS

Order online today at **www.toolnut.co.uk**

Demystifying the skew chisel

PHOTOGRAPHS BY KURT HERTZOG

This month, **Kurt Hertzog** talks about the skew chisel

Of the many tools in a woodturner's kit, the skew chisel alone usually falls into the love or hate category. Few woodturners are neutral on the tool. The classically trained tradesmen learn the power and versatility of the tool and it is often their 'go-to' tool for nearly all of their spindle work. The self-taught turner usually struggles with the skew chisel and, without some outside guidance or supreme perseverance, will rarely master the tool. Others who have had guidance during their learning will usually learn effective use of the tool provided their instructor is proficient with the tool. If you have mastered the skew, skip this column and go enjoy the rest of the magazine. It is beyond the scope of this article to teach you how to use the skew chisel, but I'll share a few of the 'rules' that have helped me. If you haven't truly mastered the skew, read on to see if we can take some of the mystery out of the tool and help with some pointers to assist with learning.

Rather than the standard four spur, pick up a safety or cup centre. With or without the pin, it will aid your learning

Safety

There is a very simple lathe tool available to take some of the anxiety out of learning and practising with the skew chisel, as well as enhancing the safety. Rather than using a four spur drive centre or other solid engagement drive centres to drive the workpiece, use a safety centre – sometimes called a cup centre. This drive centre is readily available through the standard woodturning supply sources. Modestly priced, they drive the work via the friction of the engagement of a sharpened ring. When you have a catch, the work piece being driven will stop once the friction of the ring has been overcome. You can adjust this threshold by how much force you have applied through the tailcentre force. Once you own a safety centre, you'll find many uses for it during your normal turning. If you remove the centre pin, it allows for infinite re-adjustment of the work at the headstock end, much like the pinless tailcentre, allows for minute adjustments.

Types of skew chisels

There are a host of skew chisels available from nearly all of the tool makers. These range in size, cross-sectional shape, skew angle, and type of grind. The skew chisel also can be readily made for the 'shop handy turner either from the appropriate tool steel or being a regrind of a flat scraper. Ignoring the grind style and size at this point, the most common skew chisel shafts are rectangular cross section, oval, or round. There are other woodturning tools that are in essence skew chisels in function, but bear a different name. We'll touch on them later. The different cross sections are convenient depending on the specific use. It is a fitting in issue that allows for selecting the largest tool that will fit into the application to make the cut(s) needed. You may find that any one of the different shaft profiles meets all of your needs or ultimately have one or more of the different shaft profiles.

Skew chisels come in all sizes and many different styles. Each has its own strengths

The most common cross-section skews are rectangular, oval, and round. Round are usually home-made

Terminology of the skew chisel

You can buy skews handled or unhandled. Opting for the larger sizes provides a larger sweet spot

All of the skew chisels that are ground at a skewed angle have common terminology. The shaft is pretty obvious whether rectangular in cross section, oval, or round. The bevel is the ground section on both sides of the skew. There is a toe or long point, which is the point farthest from the handle. The heel or short point is the point of the grind that is closest to the handle.

The three locations of the skew that are most commonly used to cut are the toe, heel and 'sweet spot' of the ground area. That sweet spot is the area of the ground length located from about 25–50% of the edge measured from the short point. It stands to reason that the bigger the skew, the bigger the sweet spot. There are occasions to use the entire cutting edge such as when making a peeling cut.

Cutting edge angle

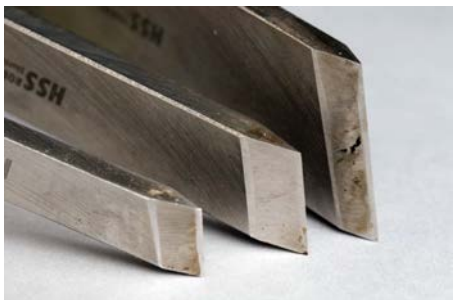
The skew chisel gets its name from having the cutting edge ground at a 'skewed' angle with respect to the shaft of the tool. There are even some skews that are ground straight across with no skew angle. These will function nicely as a skew chisel but have two identical points rather than a heal and toe. Regardless of the cutting edge skewness to the shaft, there are two basic grinds that you'll run into. One is ground in a straight line between the heal and toe and the other is ground on a radius between those two points. There are proponents of both. I have experimented over the years with both grinds, but find my preference is for the straight grind. I also have a favourite skew angle but don't actually measure it. It is just a preference that I try to stay close to.

My largest skew and one of the smaller rectangular skews in my kit. I've moved to all straight grinds

Skew angle and included angles

All of my skews fall in the 70° range although I eyeball them when grinding rather than measure

My included angles vary, but my go-to skew for detailing is right around 40°. A good general purpose angle



Many times you'll hear grind as multiples of the length of grind x the shaft thickness

Whether a straight grind or a radius grind, you'll select or grind your skew chisel(s) to an angle you find comfortable to use. Unless it is really extreme from the typical angle, all skews can be made to cut nicely. That said, most turners find a grind angle that they favour and will get all of their skews to that angle over time. What angle do I suggest? I can only tell you that I had never measured the actual angle until preparing for this column. Common skew angles recommended by the masters are in the 70° range. I've just eyeballed it. When I did measure, most of my skews fall into 65–70° angle. I would consider that mainstream angle as a starting point if you're new. It will serve you well until you get experienced and migrate to something a bit different. The included angle of the tool grind is another matter of choice. There are some guide numbers offered by the pros depending on what you are typically cutting. For general purpose, an included angle of 40° will work well for hardwoods and softwoods. If you need a hardwood skew, an included angle of 55° will perform the cutting and not be too fragile. To get better cuts in softwoods, grind your skew to an included angle of 25°. This will give you cleaner cuts and be tough enough for the softer woods. Of course, these are just guidelines. You will gravitate towards the included angle that you feel comfortable with. I don't measure the angle on my tools except to share the numbers with you now. I tend to grind nearly all of my small and mid-size skews to a more acute angle. I do this for fitting rather than wood types. This allows me to get into smaller places and do fine detail. My larger skews are ground to a larger included angle so they can be the workhorses. I use them on larger work and for roughing, etc. Many times you'll hear the measurement for grinding in a 'number of T'. That is simply making the length of the bevel grind be a multiple of the thickness of the skew shaft. Numbers that float around are 1½T or 2T. Not a precise measurement, but a quick rule of thumb that will get a workable included angle on the sized tool you are using.

Types of grinds

You may opt for a flat grind based on your sharpening system. The Sorby ProEdge and other belts create this

I use a bench grinder for a hollow grind on my skews letting me touch them up with a diamond hone

You may wish to try a convex grind. It has some forgiving qualities for the newcomer

Depending on your sharpening system, you'll be grinding your skews with a hollow grind or a flat grind. There are also those who will suggest a convex grind for special reasons. If you are using a standard style bench grinder or wet stone system, you'll be achieving a hollow grind with the radius of the wheel you are using. If you are using the Sorby ProEdge system or a similar belt sharpening system, you'll create a flat grind. Either will work nicely for you and make all of the many cuts the skew can make. I use a bench grinder with 7in diameter wheels. I find this hollow grind has the feel that I want, along with the advantage of being able to be touched up with a diamond hone between trips to the grinder. There are those turners who will hone the skew chisel edge after grinding. I do this as well as use the diamond hone to keep the skew sharp. I think of it as keeping the tool sharp rather than honing the edge.

Sharpening

Adjust to the desired angle. Slide the tool up the rest to contact the wheel parallel to the edge

The skew jig attachment to the Wolverine makes sharpening quick and easy

Grind surfaces aren't parallel or the cutting edge isn't dead centre? A sharp cutting edge works

Depending on your skill sets, you can sharpen a skew chisel freehand or with the use of various available jigs. The Tormek has a very nice fixturing jig that will allow you to precisely set your skew angle. If you've purchased a skew that you are content with from a skew angle and included grind angle, your task of sharpening is pretty easy. Adjust your fixturing or rests to replicate your current angles and grind when needed. Use a black marker on the grind surface to check for accurate positioning. With some practice, you can freehand a skew chisel on a bench grinder with a fair sized rest. Adjust the rest for the desired angle. Once set, place the skew flat on the rest angled to present the tool bevel parallel to wheel, then slide the tool forward up the rest to contact the wheel. Once in contact, slide the tool side to side to grind the entire bevel, taking care to keep sufficient tool on the wheel as you approach the wheel edges. Repeat on the other side of the tool using the same procedure. When using the Tormek or Sorby ProEdge, simply follow their instructions for sharpening the skew chisel. They are very clear and easily followed. The Oneway skew attachment for the Wolverine sharpening system acts just like their sharpening arm for adjustment. Once adjusted, the two outside cradle positions sharpen the two sides of the skew. Again, take care to keep your tool positioned safely on the wheel width, keeping safely clear of the grinding wheel edge.

The cuts

The skew chisel in the various permutations is one of the most powerful tools in your kit for spindle turning. It does have some application in bowl and faceplate turning, but it really excels for the spindle turner. In capable hands, it can do nearly everything needed except deep coves. Some of the cuts that the skew does extremely well are planing, peeling, slicing and V cuts. You can also use the skew when rolling beads and as a scraper in certain applications. Save these cuts for further down the road after you get some of the other cuts mastered. The few 'rules' and starter techniques that I'll share with you have helped me over the years. Raise the tool rest and work up higher for planing cuts. This gives you a better control of the tool as opposed to having the tool handle down by your side. Choke up on the tool for control and let the tool do the work. A sharp skew cuts so effortlessly that there is no need to muscle it. It is a finesse tool. Present it properly rubbing the bevel, give it a clearance angle, and let it cut. When planing cuts are being performed, keep the tool bevel angled at about 45° to the axis of the spindle. Present the tool bevel edge so the cut will be made in the sweet spot. That is the area of the edge that is about 25–50% of the grind length as measured from the heel of the skew. Rub the bevel, give it a clearance angle, and keep the cut in the sweet spot as you traverse the length. The peeling cut, to remove lots of wood quickly, is an easily learned cut. The tool is laid flat on the rest and the face of the grind is presented to the work parallel to the axis of the work. It is presented high enough so that the tool can be manipulated to find the bevel. After finding the bevel, the tool handle is lifted as you follow the bevel rub as the material is removed. The handle motion is much like using a parting tool as you follow the decreasing diameter as you cut. This cut needs to be made with clearance for the heel. You can't make this cut in the middle of the spindle without considering where the heel will be going as you cut. The skew excels at end grain cuts. The end grain cut is performed with the toe of the skew. The face of the bevel is angled to be parallel with the face being cut. The toe is slowly brought into contact with the work from above as the tool handle is lifted. Once in contact, the tool is slightly angled away from the face being cut to ensure that the cut is being made by only the toe. If the cut creeps up the edge from the toe, there is a greater likelihood of a catch. Make the width being faced-off small, then cut only on the toe and you'll do well. These three cuts will get you started. Mastering these will make adding V cuts, rolling beads and roughing cuts a very easy task.

Some skews come with the corners 'broken'. You may need to do this to your skew for easy toolrest sliding

Rest a bit high, tool at 45°, bevel rubbing then clear, sharp edge, and it will cut curls rotating by hand

The skew excels at the planing cut. Stay in the sweet spot with a sharp tool and light touch

Right off the tool. What do you start sanding with? If you touch it with sandpaper, you made a mistake

Tool flat on the rest, edge parallel to the axis, rub the bevel and slowly lift the handle

As the diameter decreases, follow it right down as you would with a parting tool

The end grain cut works superbly to clean up torn grain. Take thin sections at a time for best results

Other 'skews'

There are other tools in the kit that are in essence skew chisels. They may be ground straight across or only from one side. Regardless, they cut like a skew and can be manipulated as you would using a skew. The parting tool, beading and parting tool, and bedan come to mind. The parting tool, ground in a different cross section, is indeed a mini skew and works nicely as such provided you pay attention to the same guidelines as a skew. The beading and parting tool with the square cross section does the same. Without a toe or heal, it works very nicely when rolling beads as well as being a larger turning parting tool. The bedan, being ground from only one side, functions as a straight across skew chisel. While being smaller in edge length than most skews, it can be used to make all of the same cuts if done carefully.

Looking at the skew chisel, do you think these four to the right are related?

Conclusions

I hope I've presented enough to take some of the mystery out of the skew chisel. The skew works the same as all of the other cutting tools in your kit, but does have a few rules that can't be violated. As with your other cutting tools, you rub the bevel, provide a clearance angle, and the tool cuts. There are many videos available through retail channels as well as on the Internet. Many are helpful and safe; others, not so. Be cautious in your selection of whom to learn from. There are plenty of wannabe woodturning YouTube stars that are not truly knowledgeable or safe. One that I can recommend is by the late Allan Batty; it is available on YouTube and runs 54 minutes. It is in the Craft Supplies USA library and is titled 'The Skew Chisel with Allan Batty – Full Length Video'. There are others but this is an excellent video to begin with. Don't violate the few key rules, keep your skews sharp, and practice. It won't be long before you will likely find the skew chisel as one of your favourite tools. ●

With just a little effort and practice, you can add the skew chisel to your favourite tools

Olivers Woodturning

Olivers Woodturning
Little Singleton Oast, Great Chart,
Kent, TN26 1JS

Follow us

Telephone: 01233 613992
E-Mail: sales@oliverswoodturning.co.uk
Skype: olivers_woodturning

Opening Times - Monday to Friday 9am to 5pm. Online 24 hours a day, 365 days a year.

We Have Moved!

We have moved. Our new address is Little Singleton Oast, Great Chart, TN26 1JS.

Olivers Woodturning supports the AWGB

The Association of Woodturners of Great Britain www.awgb.co.uk

Donna Zils Banfield

From a young age **Donna Zils Banfield** was discouraged from such pursuits, but we're certainly glad she didn't give up on woodturning. Here we find out how she became a prominent woodturning tutor

Donna was born in Grand Rapids, Michigan, USA, to first generation born immigrants from Poland and (at the time) Russia. Raised in a Catholic family and neighbourhood, Donna spent 12 years in a Catholic school.

Although neither of Donna's parents were woodworkers, her maternal grandfather was. After migrating to the US in 1913, Donna's 'Dziadzia' (Polish for grandfather) worked in the furniture business as a finisher until he was 96 years of age. Sadly, Donna's grandfather never knew of her interest in wood, as she was discouraged from those pursuits growing up; she was told it was not something a young lady should pursue. "I was a stubborn child and regularly fought the restraints under which I was raised," Donna recalls. However, she inherited some of her grandfather's furniture after he passed.

It might come as a surprise that Donna's venture into woodturning came about quite unexpectedly; "My husband surprised me with a wood lathe and turning tools for Christmas in 2001," she explains, as he thought she might enjoy woodturning. This was due to the fact that since inheriting her grandfather's furniture, "although he finished furniture for a living, he coated everything in his house with paint," Donna began restoring the furniture to its original wood surface, stripping the layers of paint with, first using chemical strippers, and then a heat gun. Concurrently, Donna and her husband were regular attendees at the Annual Craftsmen Fair at Mt. Sunapee, NH. This is a showcase of the finest artists and craftsmen in NH, all juried members of the League of NH Craftsmen and the oldest continuously running craft fair in the U.S.

The fairs regularly feature demonstrations by many of the craftsmen and women and Donna was fascinated by the woodturners. While her friends and family were off to look at the glass blowers, jewellers, blacksmiths and other attractions, Donna could not leave the woodturners. So it was a guess on Donna's husband's part that she might enjoy woodturning. He had no idea….

Upon starting woodturning, Donna's first love was in bowl turning, saying: "You never forget your first love, do you? That is my bread and butter now, it's utilitarian work that I sell in seven galleries and the annual League of NH Craftsmen Fair every August. I've come full circle as I am now a juried member of the League of NH Craftsman, having successfully juried into the organisation in September 2010."

PHOTOGRAPHS COURTESY OF DONNA ZILS BANFIELD

Teaching

Donna begins: "woodturning can be a white-knuckle experience if you don't know what you're doing. Usually by the time the student comes to me, they've tried to figure it out on their own, with some scary results."

Before the student and teacher stand in front of the lathe, Donna will assess the student's level of experience by spending some time talking with them, and if they brought any, an examination of some of their work. By doing this, it will give Donna an idea of where to begin the lesson. After covering the personal safety essentials, the pair then begin woodturning. "I will demonstrate the technique or cut for the student, and then hand the tool over. After a few cuts, with a slight adjustment from me, the student finds that 'sweet spot', and relaxes a little. After another few minutes, the smile begins to spread wide, sometimes ear-to-ear. It's a beautiful moment, seeing the student feel and enjoy the pure pleasure that woodturning can be."

Influences

When looking to her influences, Donna tells us that she has had some wonderful experiences with some talented artists. The most relevant however was Beth Ireland, in April 2002. "After four months of struggling on my own, trying to figure out this woodturning thing, I took a bowl turning class from Beth at the Woodcraft store in Woburn, Massachusetts," Donna explains. That six hour session was "a lightbulb over my head" and woodturning began to make sense.

Development

It wasn't long after Donna started woodturning that she became obsessed with the carving and texturing. Donna tells us "it's been said by many turners before, if the form isn't spot-on, no amount of carving, pyrography and paint can save a bad turning". So her early attempts in the surface embellishment were "pretty bad."

Over time, and hundreds of hours in front of the lathe, making mistakes and learning, Donna's forms improved. "Good form takes time and practice," she tells us, "some turners create great forms and lines with little effort. Not me; I struggled, studied, made badly formed work and started over and over." With lots of practice and study with a few accomplished turners, Donna got better. "As my forms improved, my surface embellishments improved. So, the most significant change from my first years to today, are my forms."

We asked Donna how she would describe her style, to which she answered "evolving". She continued on to say: "One cannot be influenced by the masters they admire, and those under whom they have been fortunate to study. I have struggled with developing my own signature, based on the use of techniques I learned from generous teachers. I have a pattern in my surface embellishment that I've been doing since 2009. Each year it continues to evolve."

A stack of cherry bowls

Workshop

Donna's workshop is a 8.5 x 12m, two-storey timber frame barn. It was a three-year project which Donna and her husband Dave built "from the tree up", along with the help of two woodturning friends and Association of Revolutionary Turners (ART) club members, Pete Teubel and Mike Green. "Pete and Mike spent the first two years helping Dave and I haul logs to our property and mill them into beams and barn board," Donna recalls. It was in the third and last year that was spent actually building the barn. This involved cutting mortise and tenon joints on the beams, raising the bents (or walls), making and raising the roof trusses and securing the sheet metal roof. Donna continues: "Those third year events could not have been done without the help of the woodturning community. I put a call out to several area clubs and with just 10-days' notice, the day that the walls needed to be raised, we had 28 friends show up. It was an old-fashioned barn raising – who could resist?" It certainly sounds like a good-old community event!

The first floor of Donna's barn is her workspace with all the machinery and equipment, including a separate room for finishing, which also handily doubles as a photography studio. The second floor is used for wood storage; Dave and Donna built rows of shelving to store her roughed bowl blanks and stickered rough sawn lumber for him. Due to the second floor not having insulation, Donna tells us that the metal roof acts like a kiln;

You obviously incorporate carving in your work, was that a natural progression and how does it complement your existing skills?

"I was discouraged from pursuing activities that were not intended for women. When I was age 10 or 12, I recall carving something out of a bar of soap. When I showed my mother I was punished because I wasted a bar of soap, but that carving instinct stayed with me. Shortly after I discovered woodturning, I was already thinking about how to carve my turned work. My early attempts were complete failures, because I had so much to learn about how tools were used and how wood is cut, but I kept carving... and failing.

"I sought help from every turner who also carved wood – Keith Tompkins, Michael Kehs, J.Paul Fennell to name just a few. I also sought out artists who had skills that I wanted to use in my work, not just carving. JoHannes Michelsen, in how to turn thin and freehand sharpen tools. Binh Pho in how to add colour and negative space. Eventually, my carvings started to look good – not just to me, but to others."

It Satisfied My Soul No. 4

It Satisfied My Soul No. 3

The Woods Are Lovely, Dark and Deep

during the day (even in the winter) it will heat up and then cool down at night. A large attic fan on one end-wall has a sensor that kicks on when the heat rises to 110°F.

HAVE YOU EVER GIVEN UP ON A PROJECT? IF SO, WHY?

"I don't take chances with wood that shouldn't be on a lathe. I have no problem stopping if a piece of wood becomes unsound. Early in my woodturning, I was turning a 965mm crotch of manitoba maple (box elder). The bark inclusion got larger as more wood was removed. When it came apart, I heard the scream of the belt slipping. I ducked beneath the outboard toolrest of my Oneway, to avoid getting hit by large airborne pieces.

The blank separated into three large chunks. One embedded in the drywall, one took out two 2.5m fluorescent tube lights on the ceiling, and the third snapped a Crown scraper that was on my tool rack. I was lucky that day. I don't take chances after learning that lesson. "Even if a piece is sound, but it's not working for some reason, I will repurpose it. It may become a practice or test piece for carving, pyro-engraving, texturing or painting. It can always become a source of heat for my home during a New England winter."

Highs and lows

"I've been fortunate to have many highs, and very few lows," Donna tells us. One particularly memorable event for her was the day of her jurying session for admission into the League of New Hampshire Craftsmen in 2010. Donna continues: "Three years earlier, my work was critiqued by a well-known and highly respected woodworker and furniture maker, a member of the NH Furniture Masters. The comments he made were encouraging enough to make me seek admission to the League, but I still spent three more years honing my skills and techniques before submitting an application." A friend who experienced a jury session with the League gave Donna a word of advice; 'Remember to breathe'. "I didn't understand what he meant until I woke up the morning of my jury session and had a panic attack. After sharing a wide range of my work with the three jurors, I was escorted from the room so the jurors could deliberate. I had a sinking feeling when I was asked to return to the room in about five minutes. I collapsed with relief into my chair as I was welcomed as the newest member of the League of NH Craftsmen." In a full-circle, Donna is now a wood juror for the League!

It's not all been smooth sailing though, with Donna finding collaboration work a challenge. A couple of years ago she undertook a collaboration project with Peter Bloch, who turns lampshades. For this project Donna did pyro-engraving of a leaf pattern on the shade, but considering the shade was translucent, she had very little wood and no margin of error. "Peter's approach to turning his lamp shades is itself a lesson in meditation," Donna recalls, "so I borrowed from his 'playbook', working deliberatively and methodically on that shade, which took about two weeks, working 5–6 hours a day."

Future work

Donna plans to continue exploring her Soul Series work; there are many variations that she sees are possible using that pattern. Down the road from this Donna would like to start a new series, some pieces of which she has been working on already for about a year. Originally having the idea years ago, Donna felt her skills in turning, carving and painting 'weren't there' to bring her ideas to life. But now confident in her skills, Donna plans for the series theme to feature classic New England imagery.

Advice

"If you're just starting out, get help," Donna tells us what advice she would give a new turner. Woodturning is not intuitive, she points out. "Find a good teacher who can show you the basics, not just a well-known woodturner, but a good teacher. And there is a difference. A good teacher knows how to impart their knowledge in a way that you can understand."

It Satisfied My Soul No. 7

LIKES

- The zen-like meditation experienced when the ribbons of wood float into the air as I rough-turn a green bowl.
- The 'Ooh' sound when someone picks up one of my bowls, as their hands caress the outside of just the right curve and a satin-smooth finish.
- Watching a student experience for the first time the sheer pleasure of a sharp turning tool cutting wood exactly the way it was intended.
- Music when I'm working.
- Teaching woodturning to someone who has never picked up a turning tool or seen a lathe before.

DISLIKES

- Woodturners who adhere to the 'my way or the highway' philosophy.
- The increasing loss of industrial arts programs in schools across the U.S.
- Dull tools.
- Inferior tools and machinery – fighting with 'poorly made' tooling and equipment takes the pleasure out of turning.
- Have I mentioned dull tools?

TOP TECHNIQUES

- Sharpen, sharpen, sharpen!

HANDY HINTS

- If you've ever wondered if you should sharpen that tool, you should have done it five minutes earlier.

Donna hard at work

We're Gonna Have a Ball

CONTACT INFORMATION **Email:** Donna@livealifelessordinary.com Website: www.livealifelessordinary.com

www.hopewoodturning.co.uk

HOPE Easy set threading jig.

Video available to watch via the website!

Basic package price £189.00

Threading jig extras now available like the hinge plate for checking, and different thread pitches

www.hopewoodturning.co.uk

The very best in teaching, tools and demonstrations!

Tony Wilson

Mick Hanbury

Jennie Starbuck

Wayne Mack

Michael Painter

Peter Sefton

Martin Pidgeon

Nic Westermann

MIDLANDS WOODWORKING & POWER TOOL SHOW

NEWARK SHOWGROUND NG24 2NY

24TH & 25TH MARCH 2017

FOLLOW US ON FACEBOOK

FOLLOW US ON TWITTER

A great day out full of Demonstrations, Personalities, Trade Stands, Advice & Fun

Advance tickets can be purchased by calling the ticket hotline:

01474 536535

or securely through PayPal at

www.nelton.co.uk

Free parking, Showguide and Raffle.

Open Hours:
10:00am – 4:00pm Both Days.

Entry:
One day £8 / In advance £6
Two days £12 / In advance £8
Under 16's Free

Turning thin

HEALTH AND SAFETY

While these bowls are relatively small, the danger of cutting through the side and potentially exploding them is much higher than it usually would be. Because of this it is sensible to wear a face shield at all times when turning this kind of work. This is a more advanced technique, so please be sure you are ready to try this out. I always wear an air-fed helmet and face shield when turning. I would also recommend the use of LED lights rather than traditional bulbs for this kind of work to minimise risk.

Following on from last month, **Richard Findley** looks at turning green wood very thinly

Thin bowls have never really done much for me. The thinnest bowl I've made was a small maple (*Acer saccharum*) bowl with a black band, 135mm in diameter and 60mm high, as a bit of a challenge some years ago, out of kiln dried timber to an even 3mm wall thickness. They are a great test of skill but are pretty useless, which is why I have never really gone for them. Following on from the Editor's challenge from last month, we decided it could be interesting to see how thin I could go with green timber.

The Editor suggested I use a light to gauge the wall thickness – something I have seen done with some success, but have never tried and, for no real reason, have always thought rather sceptically about.

The theory

At some stage we've all turned a bowl rather too thin and experienced light passing through the walls, whether accidentally or on purpose. The theory of using a light to gauge wall thickness is that, by the colour or brightness of the light coming through the thin, wet wood you can tell how thick the wall of the bowl is – do you see why I am sceptical about it now? Many turners use this technique though, so despite my brain's unwillingness to accept how well this technique might work, I'm going to give it a go myself and see if it really is any good, so we shall soon see!

The maple bowl I made some years ago from kiln-dried timber has a 3mm wall thickness

PHOTOGRAPHS BY RICHARD FINDLEY

The plan

Last time I visited George Watkins, I collected enough green logs to do last month's article and some for this one, so my plan is to try to turn at least one, but probably several small thin walled bowls. By 'thin', I don't actually know how thin it is possible to go, but I intend to find out using a combination of an LED lamp and callipers. Could I make a bowl with an even 1mm wall thickness?

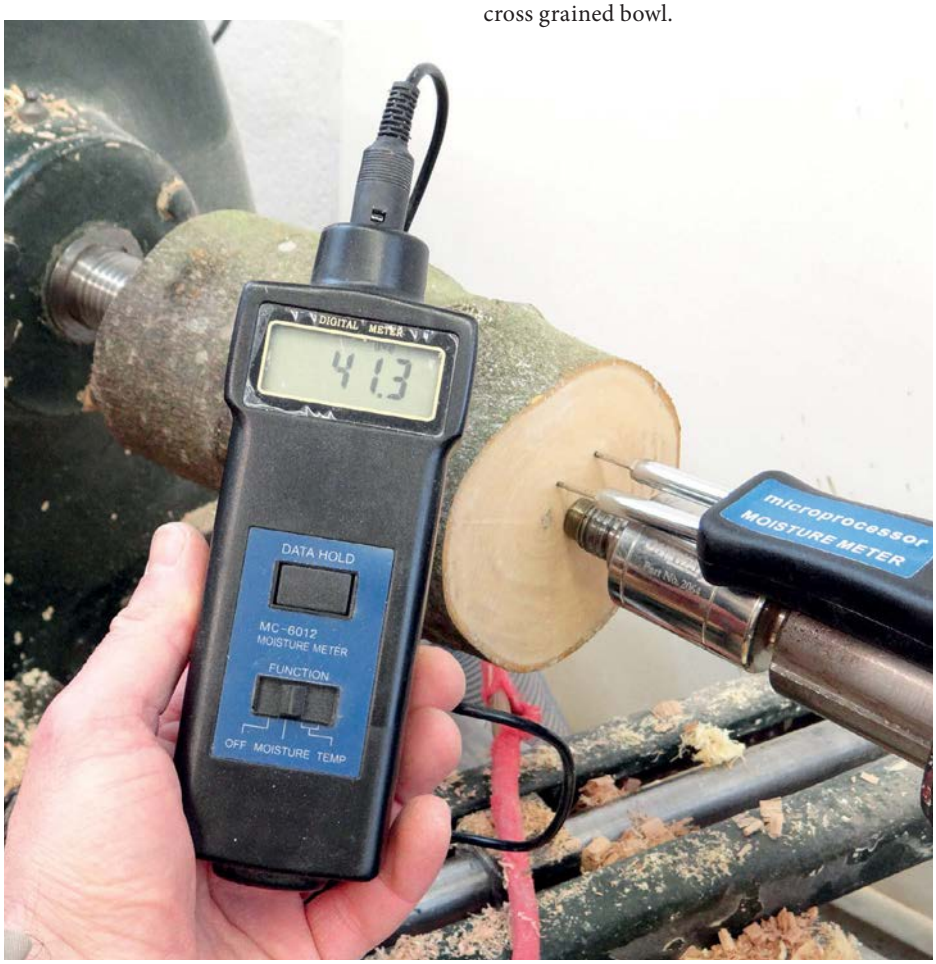
The LED lamp and my Hope callipers, ready for action

Permission to fail

The first thing I've done is not physical, but mental. I have given myself permission to fail. Let me explain: like everyone, from time to time things go wrong and a piece of work ends up in the firewood bag, but generally speaking I have been commissioned to make something to a plan, I work out how to do it and I then simply need to do it within the time scale. Failures are wasted time, wasted wood and wasted money, so one of my focuses is to make sure my failure rate is as low as possible. With these thin bowls however, I doubt I'll find out the limits (both of my skills and of the wood) without breaking at least one bowl, so I'm going to try and do the most counter-intuitive thing a turner of bowls can do; not worry about cutting through the side of a bowl.

Wood

I have some green sycamore (*Acer pseudoplatanus*) for this work, although to really test out the lamp theory I also have a piece of hawthorn (*Crataegus* spp.) left over from last month's project, so I'll try this too. You might remember that the hawthorn is around 30% moisture content, which is a pleasant level, being wet enough to make turning easy but dry enough that the free water has left the wood, meaning I don't get particularly wet when I'm turning. The sycamore on the other hand is 41%, meaning I'm prepared to get a soaking and I begin by coating my lathe bed with a protective wax lubricant to prevent rust. It is worth mentioning that I am using quite small logs, none of the finished bowls will have a diameter over 110mm. All of these bowls are end grain, with the grain running along the lathe bed, rather than the more traditional cross grained bowl.



The sycamore logs have a moisture content of 41%

Bowl one

I cut off a piece of sycamore and mount it between centres, quickly truing up one end and forming the outside of a small ogee shaped bowl. I reduce some of the waste and cut a chucking spigot, without leaving enough space to properly finish the base of the bowl, as it turns out, but as this is only the first bowl, it won't be a problem.

The outside is turned and the bowl is held in the chuck. I'm also increasing the difficulty level by seeing if I can keep a natural edge on the bowl. I make a start shaping the inside and as soon as I begin to get thin near the top edge I position the lamp.

Truing the end grain of the log

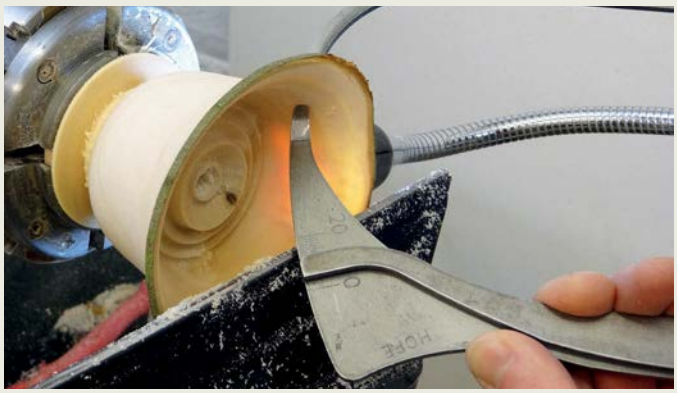
Forming the shape of the bowl

LED LAMP

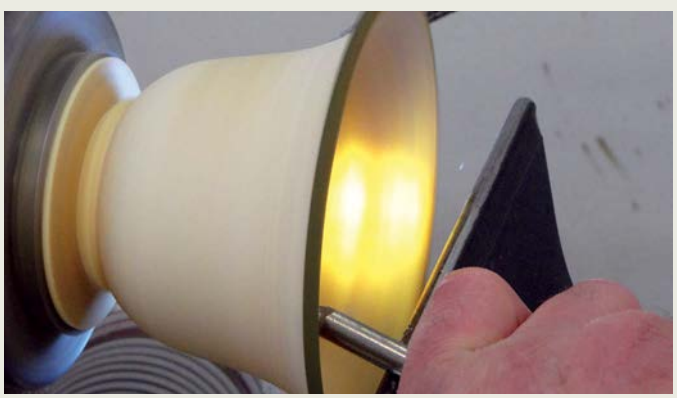
I bought this LED lamp years ago as a work light for the lathe, but never really got on with it. The base is magnetic, meaning it can be positioned anywhere on the lathe, but actually it works best on a horizontal surface, which slightly limits its use.

I also found the LEDs produce a bright but narrow beam of light, making it good for small detail work, but not so good for illuminating a wide area, so it has mostly sat on a shelf unused since I bought it. The magnetic base and flexible stem do make it ideal for this project though, as long as the light is bright enough to penetrate to wood. The added advantage of an LED is that it gives off very little heat, making it ideal for working close to green wood; LEDs are also much safer to use than a traditional bulb, should a bowl explode or break up close to it.

Beginning to turn the inside of the bowl



Comparing the light to my calliper reading



LED in action

This shows a definite colour difference between a wall thickness of 1.5mm and 2mm

As I cut into the bowl it quickly becomes apparent that the light from my LED lamp is going to be strong enough, despite my concerns. As I work into the bowl I stop and check with callipers to give myself an idea as to what the colour of the light means. It seems that the whiter the light, the thinner the bowl. As I progress I am staggered by just how good the feedback from the lamp light is. I expected it to work, but I didn't quite expect it to work this well. The picture (see above right) shows the light shining through the wall of the bowl. I have cut to a point and there is clearly a visible colour difference between the thickness of the two cuts. Putting my callipers on this it shows that the difference is less than 0.5mm. At this point the lighter area is 1.5mm, the darker is just shy of 2mm.

I find that as I work, the bright areas show some darker streaks where my cut is slightly less even than it might be, but this is easy to adjust with a light shearing cut with the wing of my gouge.

Failure!

Just as I originally suspected, to find out just how thin I can go I need to cut through the wall of the bowl, and as it always does, it happens suddenly with a slight 'pop!' The brightness that I had been looking at suddenly shows as a beam of light and I stop the lathe to inspect the damage. I study the damage which is a tear, less than a quarter of the way around the bowl. The amount of flex in the bowl is surprising (it probably shouldn't be, but remember I usually work with seasoned timber which is much more stable) and I decide that I probably cut too deep into the bowl, too early in the hollowing process, which allowed the bowl to flex under the tool, causing this tear. In the next one I will make sure I don't get ahead of myself so far. There is still a good bit of the bowl left, so I decide to cut off the bad part and carry on. I work down to the base and part it from the lathe.

The tear in the bowl

The real test

Part of giving myself permission to fail is that I also don't need to produce a finished item; this is really a learning and experimental exercise rather than a project. Callipers are great, but nothing beats actually seeing how thick your bowl is, so I decide that everything I make today will go through the bandsaw to reveal just how even my wall thickness is. For a first go it's actually pretty good at 1.4mm, just thickening towards the bottom, which I think is quite natural to account for a foot or base of a bowl.

The cut bowl reveals a relatively even surface

Bowl two

Straight away I put in a second piece of timber and remember the lessons learned form the first bowl: give myself more working room at the bottom and don't get ahead of myself when hollowing, focus on a small area at a time. I already know both of these things but in my eagerness to get on with it they managed to slip my mind.

I go for a similar ogee shape on bowl two; once again I will attempt to keep the natural edge in place. This one comes from a little further along the log and is a little larger in diameter, so I make it deeper to suit. This time I put everything I learned (and was reminded of) into practice and manage to successfully complete the bowl. With these being end grain, I turn them as far as I can with my spindle gouges and switch to my Hope Pro-carbide tool to reach the bottom.

As with the first, number two thickens slightly toward the bottom, but not as much. This bowl has taller straighter sides – perhaps too straight – which had a thickness of 1.8mm, so good, but moving in the wrong direction. I'm hoping I can make a bowl with 1mm walls.

Bowl two is soon underway

Initially I use my spindle gouge...

LAMP POSITION

I found the best place to position the lamp is at the back of the bowl, which gives a good visual as I work. I tried it in a few different positions out of curiosity and in an attempt to get some good pictures to go along with the article, but settled on the light being at the rear of the work shining through the wall.

There is little doubt this is a more advanced technique as good tool control and an awareness of the tool is essential. With the light shining through the back of the bowl it means that my focus is on this rather than on the tip of the tool, so it is vital to be comfortable and familiar with tool presentation to do this successfully.

I experimented with lamp positions, but settled on it being to the rear of the work

... then switch to the Pro-carbide tool

The finished bowl two

A good result

Bowl three

Having parted the second bowl off, the remaining waste block is calling to me to make a rounded in-curving bowl. I'm aware this will be a much more difficult shape to achieve the even thin wall I'm after and that repeated practice is best done on the same or similar shaped bowls to begin with, but after the success of bowl number two, I am up for the challenge!

I cut a spigot on the exposed surface, flip it and mount it in the chuck and quickly shape the outside. This sycamore is full of knots, but this doesn't seem to be a problem for the light technique and they don't seem to be troubling me during the turning like the knots in some timber would, so I ignore them and carry on.

This shape really highlights the grain direction of the bowl and I find cutting into the end grain with my spindle gouge much more difficult than on the previous two bowls so I switch to the Pro-carbide tool, which handles it much better, being more closely related to a ring tool than a gouge.

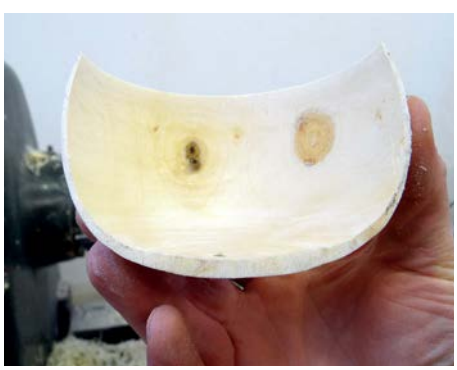
As with the others the turning is quite straightforward and I keep a close eye on the colour of the light shining through the wall to achieve the even wall thickness. I find that this more enclosed shape holds the shavings much more than the open ogee bowls. This isn't usually a problem but I need a clear view of the light, the shavings quickly cover this, giving a false impression, so regular clearing of shavings is vital to success with this bowl.

Once the inside is complete to my satisfaction I put the light inside the bowl, which I am happy to do because it's an LED, I'm not sure I'd be comfortable doing this with a traditional bulb, although I've seen it done. You can see how the light shines through the bowl, giving me a guide to finish the outer curve and part off the bowl.

As before, I put the bowl through the bandsaw, and just as before I have managed to turn the base thicker than the walls. I'm a little frustrated with this, although I can't help feeling the thicker base is probably a good thing overall and it isn't that thick, the walls being 2mm thickening to 5mm in the base.

The waste from bowl two screamed to be made into an in-curving bowl

Using the light inside the bowl to finish the base and part off

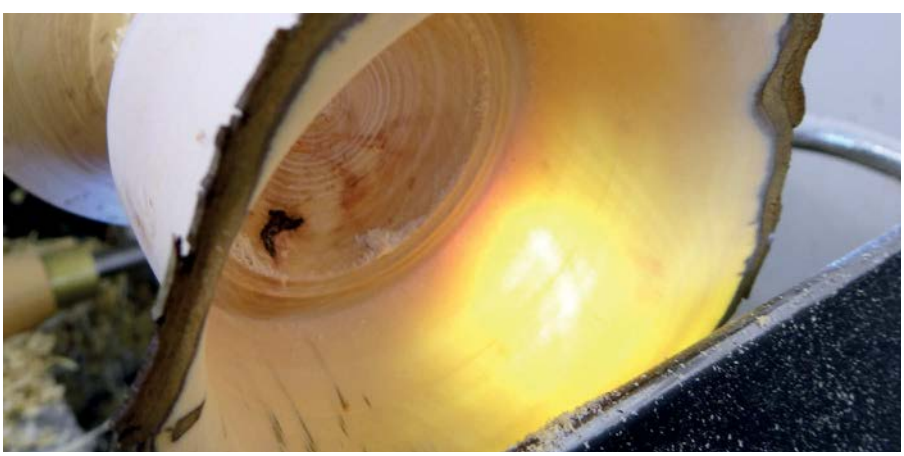


Bowl three cut in half, showing the thicker bottom

Bowl four

I decide for this final bowl I will use a piece of the hawthorn I had left from last month's article. I'm curious to know if the light shines through it the same as it had for the sycamore, with it being so much more dense, tighter grained and that bit drier. The sycamore was quite open grained, having grown very quickly in George's garden and was freshly cut only a month or so ago.

I went back to the ogee shape of the first two bowls for this one as this lends itself to natural edge work and was a slightly easier option. As before, I shape the outside and then move on to the inside. I use the spindle gouge as far as I can easily reach before switching again to the Pro-carbide tool.



The light works just as well on the hawthorn as it does the sycamore

A word on tools

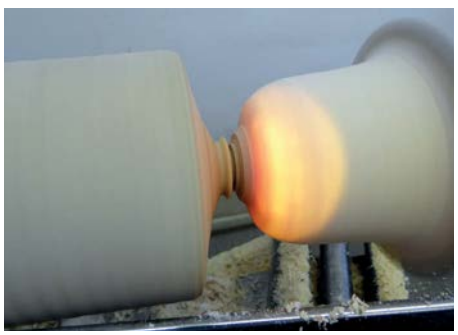
The Pro-carbide tool is a great little tool, very sturdy in use and easy to manipulate. One feature of it though is something of a double-edged sword for hollowing; it has the ability to cut on the end of the tool, unlike some fixed ring tools I've used. This can be a very useful feature, especially for removing the little pip in the bottom of a small hollow form or bowl like this, but it can also be a pain because if it touches the bottom of the bowl without you being fully aware of it, the tool will catch and run across the base of the bowl. After this happened to me a couple of times, although thankfully it didn't result in losing the bowl, I switched to a different tool, this time the Ashley Iles fixed angle ring tool. I've owned this for some years and used it occasionally. This tool cuts well on the side but not at all on the end of the tool, making it a much less catchy option on the lower corner of the inside of the bowl. It isn't as rigid a tool as the Pro-carbide, but it did the trick here.

Finishing bowl four

As with the other ogee bowls, I turn a small foot to give it stability (as if I was actually going to keep it as a finished bowl, rather than put it through the bandsaw). Looking now at the photo of me turning the base, it shows that the base is thicker than the rest of the bowl, so I shouldn't be surprised to find this when I cut it. I seem to remember watching this technique in a demo and being told that light will travel through end grain easier than side grain, giving a slightly different 'reading'. I'm not sure how true this is, certainly in this instance, as the photos show that the light shining through the bowl and the cut bowl agree very closely on the wall thickness.

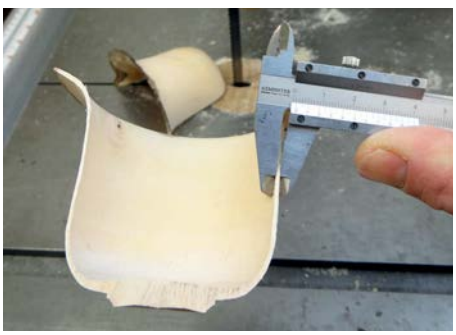
The other problem is that I still have an eye on the overall look of the bowl and because it is so thin, I can't go back to adjust the curve, so I produce a curve that looks good, rather than truly following the guidance of the light. On a complete bowl this is always going to be the best option – 'Form is king' as a friend of mine often quotes.

As before bowl four goes through the bandsaw to reveal – just as the light suggested – that the walls were a very even 1.2mm, thickening at the base to 3mm before the foot. A very satisfying result!



The light from inside shows where the bowl thickens at the base

The finished bowl four



The end result

Conclusion

I am astounded by just how good the light technique is. It is hard to believe just how accurate simply shining a light through a piece of wood is at showing the wall thickness. I knew it worked, but I had no idea it worked that well! Despite my dislike of turning wet wood – and this sycamore was really wet – I have enjoyed making these bowls, even if I don't actually have a finished bowl to show for it.

Many turners will be horrified at the thought of putting something they have just made through a bandsaw, but I can tell you it is really worth it. Of course not every bowl needs to go through, but every so often I would recommend doing it, just to show you whether or not you are achieving that even wall thickness that you think you are. I know I tend to make the bases of my bowls a little thicker than the rest, and this continued here; apparently it's difficult to break the habit of a lifetime!

The finished collection of cut bowls

Community letters

Here are just a few letters the Editor has received from you, the readers

Charitable contributions

Hi Mark,
I hope you are well. This note is in reply to your introduction in *Woodturning* 299. Back in 2011/12 you helped my charity St Dunstan's, now known as Blind Veterans UK, by sending a member of your staff to our Brighton centre to interview me and take photos. This turned into a five-page spread, which gave the charity great publicity.

I started making pens, bowls, clocks and pinecone hedgehogs to raise funds for our Llandudno centre, which I still do. Members of my pen turning forum (www.penturners.co.uk) started sending me pen kits, pen blanks and other consumables to make pens to raise funds. The forum then sent me finished pens to sell.

A group was formed on Facebook by Woody Turner, Pens for Heroes UK. The members, especially Woody himself, make and donate pens and pen stands to my charity as well as Horseback, another military charity, to help traumatised veterans. We also have another spin-off group on Facebook called UK Pen Turners. The members of this group, some of whom are in the other group and forum, also donate generously to our cause. We have had pens from Australia and the USA, as well as the UK. The generosity is just overwhelming. Thanks to their efforts, we have raised a few thousand pounds for which we are incredibly grateful.

Woody Turner is now a guest turning instructor at our Llandudno centre. I purposely haven't mentioned anyone other than Woody, as there are just too many people involved in the donations to mention without missing someone out. From my humble beginnings of making things for Blind Veterens UK, I have become acquainted with a wonderful amount of internet friends all with one aim – to help our veterans.

I want to take this opportunity to say a great big thank you to all who have helped, it is truly appreciated. You all know who you are, feel proud of what you have achieved, we at the Llandudno centre certainly are. Thank you again Mark for the opportunity to express my feelings to those who have helped in our cause.

Bill Mooney

Making a Rauchmann

Mark,
Based on the story by Colwin Way on how to make a Rauchmann in the November 2016 issue of *Woodturning*, I made a prototype following the instructions. I shared some photos with Colwin and he suggested I pass them along to you for possible follow-up.

As I told Colwin, I found the plans well done and the steps were easy to follow and understand. I have had problems with incense staying lit however, so I enlarged the vent holes from ¼in to 3/16in. I also enlarged the mouth opening from ¼in to 9/32in.

The prototype has been a big hit and I've had requests to style future ones as Kansas City Chiefs football players! I'm a recent subscriber to *Woodturning* and have found it to be an excellent resource for new ideas and techniques. Keep up the good work!

Dave Phillips

PHOTOGRAPHS COURTESY OF DAVE PHILLIPS

Dave's version of a Rauchmann

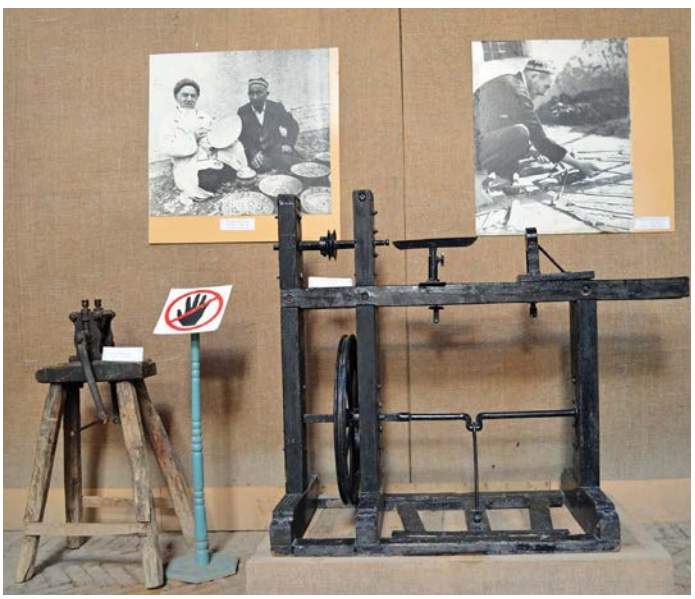
A surprising find

Hi Mark,
I have recently been fortunate enough to spend a few weeks on holiday in Central Asia. It's not an area with many trees, and large areas have none at all! I was surprised therefore to come across this turner in one of the narrow back streets of the rebuilt old town in Kashgar, in the autonomous region of Xinjiang, in western China. He sits surrounded by his blanks, uses just a skew chisel (surprisingly broad) and a simple lathe with the head stock at the right hand end. He displays only spindle work, but of high quality. The language barrier prevented any meaningful communication, but he was happy to have his picture taken! It is always good to watch skilled craftsmen at their work.

The photograph below shows a treadle lathe in a museum in Khiva, Uzbekistan. No date was given for its age, but I would guess 19th century. So, for an area with very few trees it was good to see evidence of turning past and present!

Regards, Hugh Ferriman

Surrounded by his blanks, Hugh came across this turner while on his travels



A treadle lathe in a museum in Khiva, Uzbekistan

PHOTOGRAPHS COURTESY OF HUGH FERRIMAN

A turned gift

Hi Mark,
I read with interest Richard Findley's article 'Looking at involuted/inside-out turning' in issue 300 of *Woodturning* magazine.

A few years ago I too gained inspiration from Mike Darlow's book, *Woodturning Methods*. My wife was an elementary school teacher and I wanted to make her a special gift. Here is the completed apple. It is made of maple, with the inside finished with clear lacquer before final assembly. After turning, the outside was dyed and lacquered. Looking through the apple shaped 'windows', one sees a small apple on the inside! The clear coated interior and red coloured exterior gives quite an apple look!

Thanks for a great magazine!
Charlie Sheaff

Charlie's turned gift for his wife

PHOTOGRAPHS COURTESY OF CHARLIE SHEAFF

Hinge and clasps

Hi Mark
I make ladies' bangles and have had requests for hinge and clasps to produce a tighter fit; so far I have been unsuccessful in finding any. Maybe one of your knowledgeable readers can help with finding suitable clasps that can be affixed to wood?

Regards,
Mark Cordle

Napkin rings and stand

This month, **Colwin Way** continues his condiment set and makes another dining table piece

This one's a real favourite of woodturners and as a young apprentice 30 years ago I remember making these napkin rings in the hundreds, in many different timbers and designs. We used to make them in sets of mixed timbers, packed in presentation clear lidded boxes. Back then we used to use wooden jam chucks to take out the centre of the rings, but I want to show you what I use now that we have the benefit of modern woodturners' chucks. Even though I've used a single timber for the rings in my set I still think it's a good idea to mix the timbers up.

You could make a native set or an exotic set depending what timbers you have to hand and, of course, native timbers will differ depending on the country you live in. I've also given you an idea for a stand for the rings which is completely turned, but again change this to suit your ideas. Of course you may never use napkin rings or even napkins, however the ideas and methods I'm about to show you can be used on other things such as rings, bangles, or picture frames to name just a few.

I would aim this project at the novice turner even if your tooling skills aren't up to scratch yet, use the tools that you are comfortable with; most people can pick up and use a scraper straight away, so do that. Even though my job is to teach the correct use of tools to beginners, you won't find any scraper snobbery here.

Timber

Ok, so let's have a look at the timber I've chosen to use for this project; to match the condiment set from the last issue I'm making the ring stand from yew (*Taxus baccata*), but the napkin rings themselves from a piece of log section, laburnham (*Laburnum anagyroides*). This will give a lovely contrast as we breakthrough the sapwood into the heart, from white to green. As always use what YOU have to hand or your favourite timber. Here I'm using a lovely piece of the laburnum; this particular piece has a very white sapwood, which I can get away with as the yew for the stand is made from solid heart wood. I wouldn't want to have sap in both timbers as the project would look a bit confused.

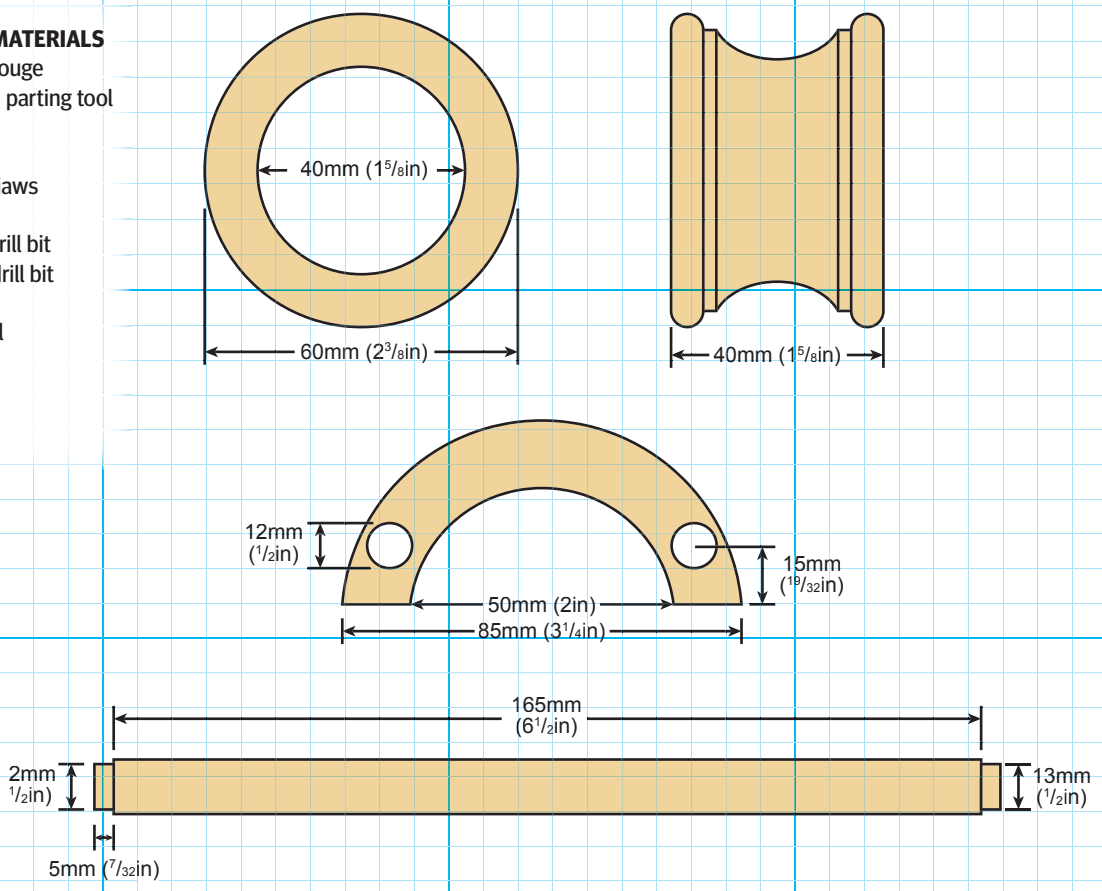
The two pieces of wood for this project

The log mounted between centres ready to turn

PLANS AND EQUIPMENT

EQUIPMENT AND MATERIALS

- 20mm roughing gouge
- 6mm beading and parting tool
- 3mm parting tool
- V blocks
- Set of woodplate jaws
- Drill chuck
- 12mm sawtooth drill bit
- 35mm sawtooth drill bit
- Callipers
- 25mm skew chisel
- Sanding disc
- Rule
- Pencil



PERSONAL PROTECTIVE EQUIPMENT

I want to take a quick look at personal dust protection on the lathe and dispel a few myths.

As an instructor I have to work by the book to keep people safe and, always at the beginning of each course, we spend time looking at PPE (Personal Protective Equipment) and why we use it. I do hear a lot of comments about certain timbers being really dangerous and how careful you have to be, but to be honest I think picking certain timbers out as more harmful than others gives the assumption that some are harmless. Unfortunately, no timber out there is harmless and you need to treat all timbers the same and do whatever you can from stopping the dust from entering your lungs.

Your first line of defence is a good dust extractor to directly take the dust you make away. Remember you create dust when turning not just sanding, so your extractor will need to be turned on all the time your working on the lathe. To talk dust extraction will be an article in itself, so my best advice would be to go for a dust extractor with a good airflow, good size outlet of around 100mm with fine filter in the description, chip extractors aren't suitable unless upgraded to fine filter.

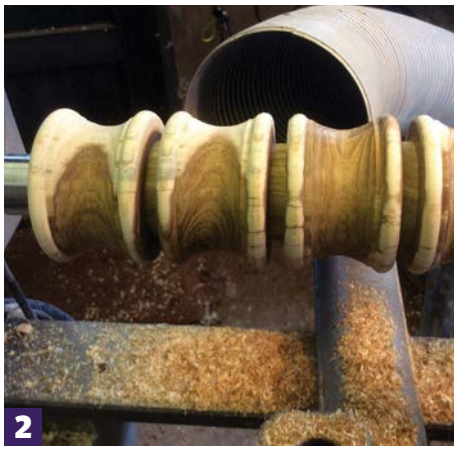
Looking at your personal protection, I prefer a powered respirator. These produce positive pressure on the inside making it very hard for dust to get in, they also prevent glasses from steaming up and the only option if you have facial hair. If at this stage you feel you can't afford a mask of this type then there are plenty of half masks out there with disposable filters. If you do opt for one of these, make sure you check the seal for a good fit. If you're getting steamed up safety glasses, that means dust will get in when you breathe. Option three would be a disposable paper mask; you must go for a paper mask with two straps, not a comfort mask. This means spending some money to get a good one. Unfortunately, if you have facial hair neither of the last two options will work and you will have to put your hand in your pocket.

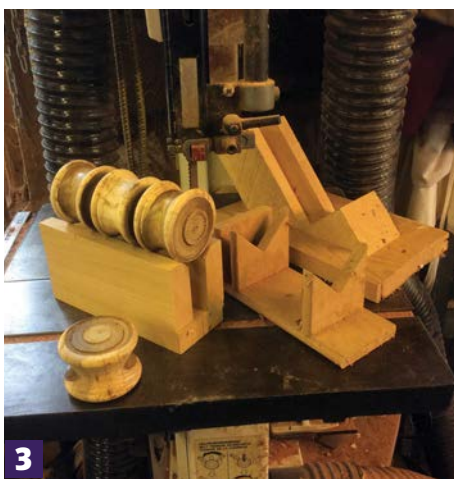
My new extractor set-up is replacing my old extractor, which is struggling to keep up with the amount of dust and shavings I'm putting through it. The layout is all a bit crammed at the moment, but next month you will see the new layout, but you should be able to make out the hose coming from the extractor to the hose stand and then to a movable hose which I can move to wherever I want it.

Wearing my Evolution powered respirator with disposable filters

My new dust extractor setup

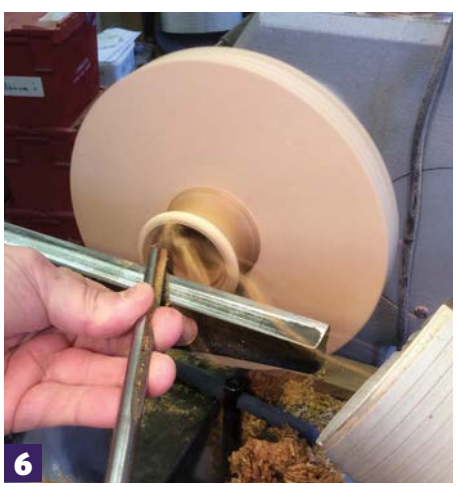

1


2


3


4


5


6


7


8

Napkin rings

1 First, rough down to a cylinder from the solid timber making sure to remove any of the soft bark before marking out with a set of dividers the individual width of each napkin ring. Remember to allow for the width of a parting tool cut when marking out. If you find it easier, mark one then cut with the parting tool before marking the next, as I'm doing in the picture.

2 Here you can see the finished shape, two beads followed by two fillets with one large cove in the centre. You can also see how far to turn down with the parting tool. Now ready to sand and seal, be careful not to sand away your detail. Use a bowl gouge to do most of the shaping, but a spindle gouge or round-nose scraper will do the same thing.

3 Now cut the rings apart and to do this use the bandsaw; you need to very careful when using this type of saw to cut anything still in the round, as they could skid and bite into the blade. A V block or sled is a really important part of the kit when cutting rounds and, as you can see, I have a wide selection I use for various cutting and drilling operations. If you are at all unsure or do not own a bandsaw, a safer option would be to use a Japanese pullsaw.

4 At this point back in the day I used to use jam chucks for this next step, but now with my modern turning chuck, I find it far more reliable and accurate to use a set of wood plate jaws. In these jaws cut a dovetail recess to match the size of the napkin rings and as you see here, very easy to fit, leaving the front surface ready for turning.

5 Before we start with the bowl gouge, drill out most of the centre with a 35mm sawtooth bit. Turn the lathe speed down to around 800rpm and drill to about ⅔ of the depth of the ring before turning it around and drilling from the other side.

6 After drilling, work on shaping the inside with a bowl gouge or scraper. Use a 6mm bowl gouge with the flute facing to the right and the bevel rubbing the inner surface of the ring to give a gentle convex curve. This is the process you would use when cutting the inside of a bowl, but again if you're uncomfortable with the bowl gouge, use a scraper to gently scrap to shape.

7 When happy with the inside surface, sand and seal. This picture shows how much access the wood jaw plates give you; because the jaws are turned from ply the work doesn't get damaged at all. It's easy to sand around the edge and blend into the upper surface.

Stand

8 The first step is to turn the two main spindles. I'm using yew for the stand. Start by roughing down to a cylinder with the roughing gouge. Use a friction drive to hold the spindle due to the size of the piece.

9 These spindles are going to be fitted into blind holes in the stand sides, so we need to cut tenons on either end to match these holes. Drill a 12mm hole in a piece of scrap timber and match the tenon to this. Use a piece of scrap to test with, which can only be used a couple of times as every time you test a tenon you're enlarging the hole. You need to have a push fit, not too loose that it wiggles, but not so tight it gets stuck half way.

10 Here you can clearly see the tenons being formed with my 6mm parting tool and calliper. Take extra care here and make sure you check regularly as you can always take a bit more timber away, but I've always struggled to put it back on again!

11 When you're happy with the tenons, tidy up the main surface with the skew chisel. Remember how the skew works, rub the bevel and cut with the lower half of the cutting edge. When the surface is good, sand and seal.

12 The finished spindles ready for fitting to the still-to-be-made sides. Make sure they are exactly the same size up to the tenons, and long enough to take all four napkin rings when laid side-by-side, as they will sit on these bars when the stand is made.

13 Now onto the side supports of the stand, again in yew as I want to end up with a stand width of 85mm. Start with a blank of 90mm. Clean up the outer edge by dropping the bowl gouge handle down, using the bottom wing of the gouge to draw across the surface, giving lovely ribbon shavings.

14 After finishing the outside edge, look at the front face. Use a push cut to clean this surface before doing the same on the back, with a parting tool.

"... rub the bevel and cut with the lower half of the cutting edge."

15 While held in this same position turn to ⅔ the depth of this disc a hole measuring 50mm across. Also this is the time to put any decoration on the outside edge if you want to. I've put three beads on the surface using a 10mm skew to scrape. Again when you've shaped these areas, sand and seal.

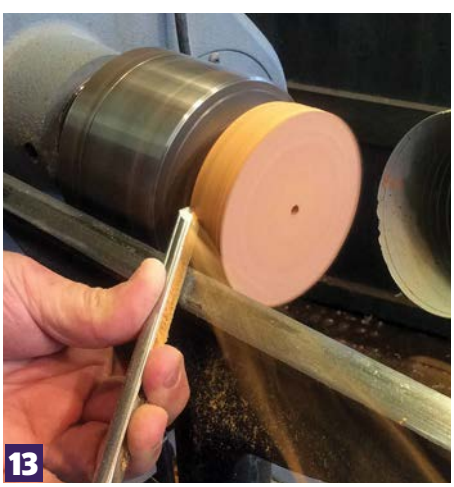
16 Back to the wood jaw plates again; enlarge the inner recess of the jaws to match the outer diameter of the stand which is 85mm. Hold the finished face of the stand in the jaws, giving you access to the other side and again use the push cut, before cutting through the centre and tidying up to your 50mm over all recess. Then sand and seal.


9


10


11


12


13


14


15


16


17


18

17 Next, cut directly through the middle of the turning to produce two semi-circles which, when inverted, will be the legs to our stand. Once again use the bandsaw, but a Japanese pullsaw would do the trick equally as well. Be as accurate as you can but don't lose any sleep if you're not exact, as you can take small errors out on the sander later.

18 We need to make sure the stand stands up straight, so use a sanding disc in the lathe and sanding table to lie the stand down and flatten off the feet. Occasionally put the two pieces side-by-side until you get both pieces the same size. Add a line running around the centre of one face to give a centreline to drill into, for the side spindles.


19

"... this is just one idea for a stand so please don't be restricted to just my ideas and put your own twist on it."

19 Mark out the sides to drill – this is where this line comes in handy. Measure up from the foot 15mm, until it crosses this line and where they intersect mark a point with a pencil before strengthening this point with an awl.


20


21

20 Next we need to drill a blind hole, so set your drill depth stop, to stop you before we go all the way through. Use a piece of scrap timber to make double sure you drill at the same place in all four points. Clamp this piece of scrap timber into position at 15mm from the foot to the centre of the hole you intend to drill.

21 There we are, the two pieces fully drilled out and ready to be assembled with the side sticks. Glue the side stick in, either with epoxy resin or a good wood glue, making sure that while the glue is still wet, you firmly push the stand down onto a flat surface to true it up while drying.


22

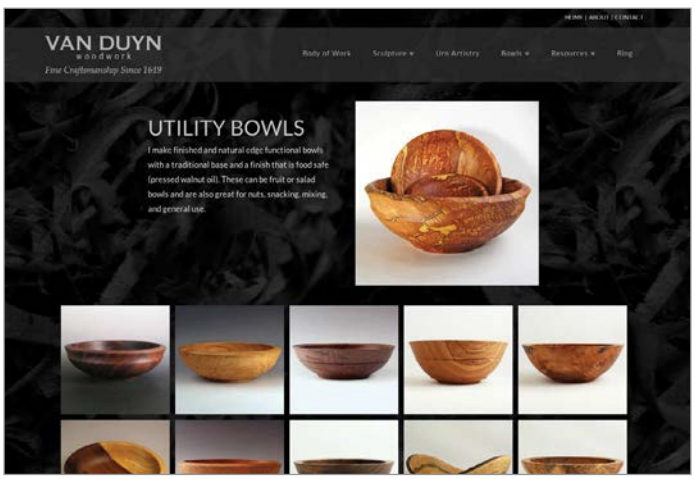
22 The stand fully assembled with the napkin rings added. Like I said at the beginning, this is just one idea for a stand so please don't be restricted to just my ideas and put your own twist on it. I would choose a lacquer or a wax to finish this type of project, both of these are available or can be worked to either a gloss or satin finish. ●

Community links

We have searched the internet for the best, most interesting and fun websites, blogs, pins and pictures, so you don't have to

Websites of the month

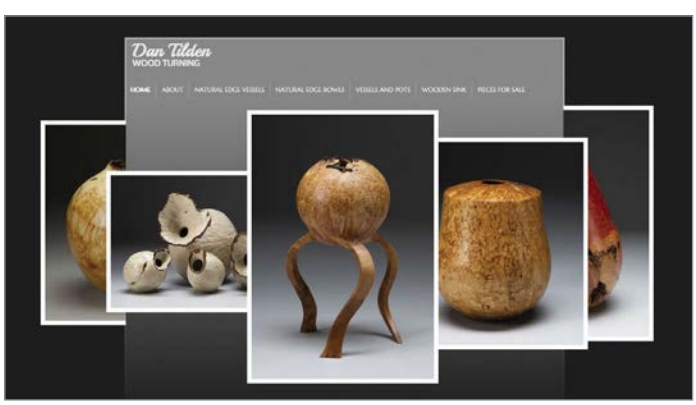
Jason Van Duyn
www.vanduynwoodwork.com



Jason Van Duyn is a multi-talented fine craftsperson in wood. His home page on the website is simple and elegant. Jason not only creates delightful turnings, he also makes fine furniture cabinets and other work in wood. His website is visual feast and he shares information on how he composes and develops his work. Jason's website is well worth a visit, to learn more about him and his work.

Dan Tilden

www.tildenwoodturning.com



Dan Tilden's website has one of the most interesting and stylish – OK, that is my opinion – homepages I have come across. Dan shows his wonderful diverse body of work – including turned wooden sinks – to great effect through his website and uses it as a window into what he creates and also serves as a way for him to sell work.

Turning club website of the month

Zumbro Valley Woodturners

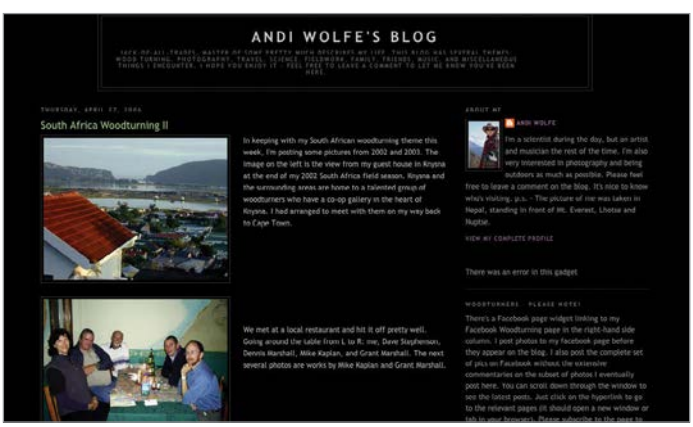
www.zvwoodturners.com

Zumbro Valley Woodturners from Minnesota, USA have a very informative website that not only shows what the club is up to, but also has a members gallery of nice pictures of the club members and contact details, but showing their work too. It is an effective website that keeps people up-to-date with what is happening at the club, and has a great archive of material in what they call the 'repository' section.

Blog of the month

Andi Wolfe's Blog

andiwolfe.blogspot.co.uk

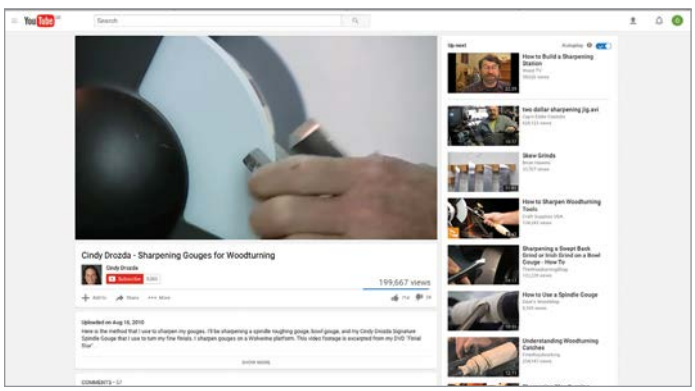


Andi Wolfe is a well known turner and photographer and also a scientist. Her extensive blog is a very interesting insight into Andi's world and well worth taking a look at.

Clips of the month

Dizzy Bowl by Dennis Edwards
www.youtube.com/watch?v=XJ1lV-UhkB4

The video by Dennis was inspired by work by Tom Lohman. This is a well considered and thorough explanation of how Dennis makes this complex multi-segment piece of work – with a distinct visual look. Countries vary in what they allow or recommend as best working practice regarding machine usage. The use of a tablesaw without a crown guard or riving knife is not allowed/not recommended in some countries.



Cindy Drozda – Sharpening Gouges for Woodturning
www.youtube.com/watch?v=4_KDSIDAtGc

Cindy explains clearly how to sharpen the gouges she uses for turning her work. She uses a 'freehand' method with a rise and tilt table. Her explanations and descriptions are clear and concise and will no doubt give a valuable insight into how she sharpens her tools. Note that the spark guards and shields have been removed/not originally fitted or supplied on the bench grinder. This is not recommended/not allowed in some countries.

Alan Lacer – Mastering the detail / spindle gouge
www.youtube.com/watch?v=-0MrdSRq3cQ

Alan looks at the common types of turning gouges and then goes on to explain in detail how to sharpen and use the detail spindle gouge. Note that the spark guards and shields have been removed/not originally fitted or supplied on the bench grinder. This is not recommended/not allowed in some countries.

Pins of the month

Billy Hall
uk.pinterest.com/source/anthonybryant.co.uk

Billy Hall turns these translucent lights and has a wide variety of designs. On his website he explains the process he uses to create them too.

Mark smith
uk.pinterest.com/marksmith1966/pins/

Mark smith – Bowlweevil woodturing – has an interesting Pinterest page and as with his website, keeps people informed as to what he making from the wide variety of timbers he is using.

FROM THE FORUM

Here we share with you the pieces that readers have posted on our *Woodturning* forum. If you are interested in the possibility of your piece appearing here, or would simply like feedback and advice on your work, visit **www.woodworkersinstitute.com** and click on the forum button

'Holey Yew Batman' by nicksimpson

This is forum member Nick's first go at hollowing yew, which has major checks and voids. Nick explains the process was: "Not at all as scary as I thought. I think the swirling grain works in your favour and stabilises to an extent I did not expect." The largest of these pieces is 175mm tall and made from a tree hundreds of years old. Forum member monkeybiter commented: "Absolutely gorgeous! And quite an achievement producing something so nice from timber like that."

'Sycamore Bowl with Milliput insert' by Awhale

Awhale posted their 'Sycamore Bowl with Milliput insert', which is impressive as they are new to turning. Awhale explains: "I've made six bowls so far, and I keep improving each time I make one. I was inspired by Jim Overton on YouTube, who turns a lot of things and uses Milliput (epoxy putty). I sanded to 400, applied 2 coats of sanding sealer, then applied Yorkshire Grit, then Wood Wax 22, then Hampshire Sheen Microcrystalline Wax." Fellow member crataegus replied, saying: "Impressive work for someone who has only made six bowls, Andrew. Nicely finished, too. Keep up the good work!"

'Ash canker, end-grain pot' by Les Symonds

Rescued from the fire wood pile, Les Symonds posted this interesting pot on our forum. The piece is roughly 180mm in diameter, and 170mm deep. Les plans to use the next part of the branch to turn a cross-grain bowl. Ian Thorn commented: "I like that. Well thought out to include the cankers." Dalboy said: "The canker certainly lifts the piece from just a plain piece of ash. Great job look forward to the next one."

Stiles & Bates

The Woodturning People

Shop **NEW Mail Order Catalogue** **Website**

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

Tel: 01304 366 360

www.stilesandbates.co.uk

sales@stilesandbates.co.uk

VISA VISA VISA

WOODWORKERS EMPORIUM

Exclusive US importer of VICMARC lathes, proud to present a complete line of professional machines.

VL300, 220v, 2hp, Variable Speed 24" swing

VL240, 220v, 2hp, Swivel Head 20' Swing

VL300, 220v 3hp, Variable Speed 24" swing. Adjustable height

VM150, 220v 1hp, Variable Speed 12" swing

Cast iron lathes with tapered roller bearings made in Australia since 1984. Preferred lathes of many professional and passionate woodturners. Solid, reliable and well designed. Choose from 12" swing to 24" swing and from 1hp to 3hp.

WOODWORKER'S EMPORIUM

5461 ARVILLE, LAS VEGAS, NV, 89118, USA

800-779-7458

WWW.WOODWORKERSEMPORIUM.COM

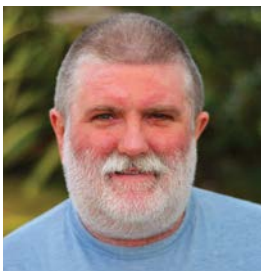
Also available Vicmarc chucks, jaws and many accessories.

Our contributors

ALAN WASSERMAN
Alan is a retired trial attorney of 36 years who 'turned' to woodturning in 2010. He transferred his passion for the practice of law to woodturning. Alan's skills were built on practice, study and learning from numerous private lessons from the masters.
alanwassermannc@gmail.com
wassermanstudio.com

ANDREA ZANINI
Andrea Zanini is a professional woodworker who learned the trade from his grandfather. Parallel to his furnituremaking business he turns all kind of objects, pens, bowls and sculptures.
andrea.zanini464@gmail.com
andreazaniniwoodcarving.com
Instagram: Andreazanini464

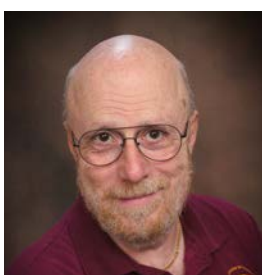
ANDY COATES
Andy is a professional woodturner and has a workshop and gallery in Suffolk. He mostly makes one-off pieces, but is just as likely to be doing small batch runs, antique restorations or any number of strange commissions. He also demonstrates and teaches turning.
cobwebcrafts@btinternet.com
cobwebcrafts.co.uk



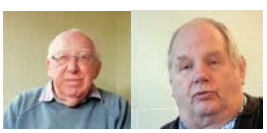
CHRIS GRACE
Chris has enjoyed making things with wood, metal and improving himself ever since his grandad encouraged him as a young child. He enjoys a variety of DIY projects as well as woodturning and carving. Chris sells his work by commission, demonstrates and provides instruction.
Chris.Grace@NotJustRound.com

COLWIN WAY
Colwin started turning aged 13 and has since gone on to teach the craft and wishes to continue to give people confidence to try the wonderful hobby for themselves.
colwinway@btinternet.com

ERNIE CONOVER
Ernie Conover is best known for teaching and writing about woodturning, as well as designing and marketing the Conover lathe.
erconover@conoverworkshops.com



KURT HERTZOG
A professional woodturner, demonstrator and teacher, Kurt writes for various woodturning and woodworking publications in the US. He is on the Pen Makers' Guild Council and is past president of the American Association of Woodturners.
kurt@kurthertzog.com
kurthertzog.com



MAURICE TEBBUTT (*LEFT*)
Maurice is a chartered Physicist, whose career has involved teaching Physics and training Physics teachers. His current involvement in woodturning developed after retirement, from a lifelong interest in woodwork.

KEITH DREW
Keith Drew worked as a coachbuilder, and developed an interest in woodturning on retirement. He has subsequently turned everything from a four-poster bed, via pens, to his current interest in segmenting.

RICHARD FINDLEY
Richard discovered woodturning while working for his father as a joiner. He makes all kinds of work to commission, and offers demonstrations and a range of woodturning supplies.
richard@turnersworkshop.co.uk
turnersworkshop.co.uk
Instagram: richard_findley

WALTER HALL
Walter Hall is a woodturner who has specialised in making pens and pencils for more than 20 years. Based on the beautiful Northumberland coast in the UK, Walter sells his bespoke pens and pencils through local craft centres and via his website.
walter@walterhall.co.uk
walterhall.co.uk

Editor Mark Baker
E: markb@thegmcgroup.com
Deputy Editor Briony Darnley
E: briony.darnley@thegmcgroup.com
Editorial Assistant Karen Scott
T: 01273 477374
E: karensc@thegmcgroup.com
Designer Oliver Prentice
Illustrator Mark Carr
Chief Photographer
Anthony Bailey

Advertising Sales Executive
Russell Higgins
Tel: 01273 402899
E: russellh@thegmcgroup.com
Advertisement Production
Production Controller
Amanda Hoag
Tel: 01273 402807
E: repro@thegmcgroup.com
Publisher Jonathan Grogan
Production Manager Jim Bulley

Subscriptions Manager
Helen Johnston
T: 01273 402 873
E: helenj@thegmcgroup.com
Marketing Anne Guillot
T: 01273 402871
Origination:
GMC Reprographics
Printer:
Precision Colour Printing
T: 01952 585585
Distribution:
Seymour Distribution Ltd
T: +44 (0) 20 7429 4000

Woodturning
(ISSN 0958-9457)
is published 13 times a year by the Guild of Master Craftsmen Publications Ltd.
Subscription rates
(including postage & packing)
12 issues: UK £47.40 Europe £59.25
Rest of World £66.36
24 issues: UK £94.80 Europe £118.50
Rest of World £132.72
US subscribers should visit www.lightningpublications.com for subscription rates in USD $.

Post your order to:
The Subscription Department, GMC Publications, 166 High Street, Lewes, East Sussex BN7 1XU, England.
Telephone: 01273 488005
Fax: 01273 478606
Cheques should be made payable to GMC Publications Ltd.
Current subscribers will automatically receive a renewal notice (excludes direct debit) subscribers

Respiratoday!

Censored!

Sticks and stones *might* break my bones: but it's the dust that will *surely* kill me - and you

Make of this image whatever you mind demands but if it made you stop long enough to read this, it has achieved its intention. And reading this may save your life.

Woodworkers in all disciplines are becoming increasingly aware of the risks implicit in breathing dust-laden air. Modern woodturning methods - and more so if using power tools - create far more dust, of a smaller particle size, than the techniques used by previous generations. Turning dry timber and any lathe sanding does the same. Wood dust is known to be a cause of respiratory disease and cancers - both of which kill, painfully.

There can be no more important message for woodworkers today - and perhaps woodturners in particular - than the need to be protected against the ravages of dust by using appropriate and effective respiratory protection equipment. Turners are being irrevocably harmed, and even killed, by ignoring the protection that a relatively low cost respiratory device can offer.

'Low cost'? That's a description which is easy to explain and to evaluate: I reckon my life is worth one heck of a lot more than the price of one of these devices. You may value your own mortality differently, but of mine I have no doubt.

One of the very best of the solutions available to combat the significant dust hazards posed by woodturning is a personal powered respirator. Having used such devices for many years, we have selected proven and effective products from major manufacturers which are designed to protect your health and reduce the chance of harm from respiratory illness. Foremost among these is the JSP PowerCap IP offering 8 hour operation on a single charge, full impact protection and costing just £195.00*. Beware of imitations!

£195: More than your life's worth? Think again!

The ToolPost

Unit 7 Hawksworth, Southmead Industrial Park, Didcot, Oxon. OX11 7HR

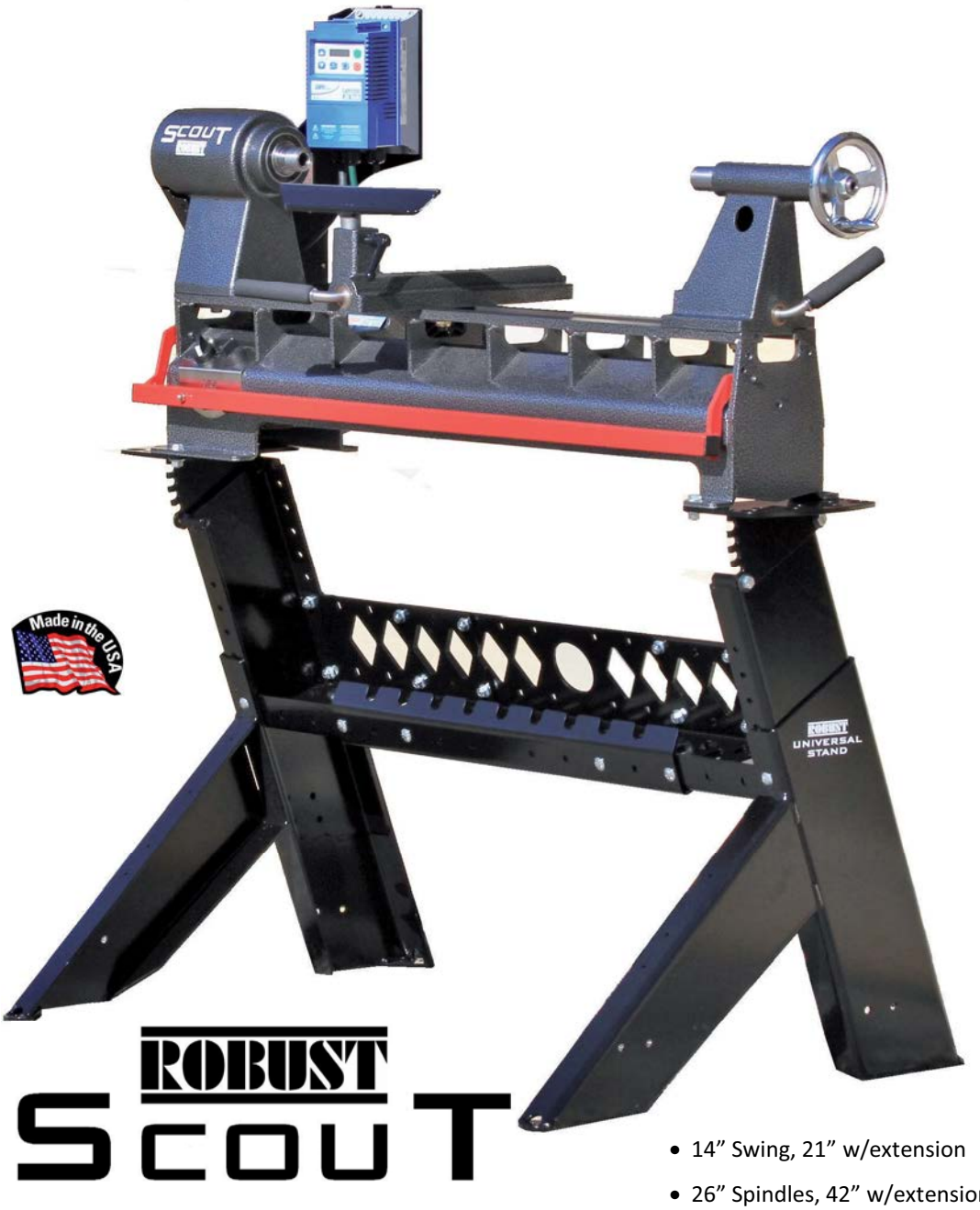
01235 511101 • www.toolpost.co.uk

sharing expertise

Price correct at time of going to press

DESIGNED TO THE TOUGHEST STANDARDS

BUILT TO PERFORM A LIFETIME



Made in the USA

ROBUST SCOUT

Whether you buy direct or from one of our reputable dealers, rest assured we are making you the best lathe we know how. Robust products are made in Barneveld, Wisconsin, by American craftsman earning a living wage.

www.TurnRobust.com

US Toll Free: 866-630-1122, International: 608-924-1133

- 14” Swing, 21” w/extension
- 26” Spindles, 42” w/extension
- 1.0 or 1.5 HP, 110 or 220 volt
- US or Metric Spindle
- Seven Year Warranty
- Your bench or optional **UNIVERSAL STAND** for standing or sitting

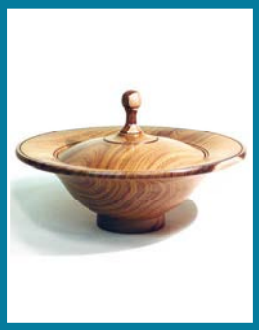
Standard **DIGITAL READOUT**
60-3000 RPM

SIMPLE CONTROLS
No belts to change !

Full length **STOP BAR** interlocks with spindle lock and indexing.

Turn 21” outboard with optional **BED EXTENSION**

Optional **UNIVERSAL STAND** adjusts for standing or sitting



SAVE UP TO 30% WHEN YOU SUBSCRIBE

FREE EARLY DELIVERY + projects technical kit&tools features profile community turning featured artist reviews tests workshop events&news + **DIRECT TO YOUR DOOR**

You pay less than £3 an issue!
by Direct Debit

3 EASY WAYS TO SUBSCRIBE

Please quote order code A4665

☎ +44 (0) 1273 488005

www.thegmcgroup.com

FREEPOST RTHA -TGLU -CTSK, GMC Publications Ltd, 166 High Street, Lewes, BN7 1XU (please affix a stamp if posting from overseas)

YES! I would like to subscribe to Woodturning

Subscriber details

Title | Initial | Surname

Address

Postcode | Country

Telephone | Email

Subscription options (please tick the appropriate price)

Pay by cheque/card	12 issues SAVE 10%	24 issues SAVE 20%
UK	£42.66	£75.84
Europe	£53.33	£94.80
Rest of World	£59.72	£106.18
Pay by Direct Debit (UK only) SAVE 30%		
UK only	£16.59 every 6 issues	£33.18 every 12 issues

The Direct Debit Guarantee: This guarantee is offered by all Banks and Building Societies that take part in the Direct Debit Scheme. The efficiency and security of the Scheme is monitored and protected by your own Bank or Building Society. Please see your receipt for details. Guild of Master Craftsman Publications will ensure that you are kept up to date on other products which will be of interest to you. If you would prefer to not be informed of future offers, please tick this box ☐
Offer expires 31/05/2017 Plus free gift with some issues; sorry not available overseas

Payment methods (please tick and fill in chosen option)

☐ I enclose a cheque made payable to GMC Publications Ltd, or ☐ Please debit my credit/debit card

Card No.

Start date | Expires | Security code

Signature | Date

☐ Direct Debit

Instructions to your Banks or Building Society

Name of account holder

Bank or Building Society account no.

Bank or Building Society sort code

Name and full postal address of your Bank or Building Society

Name

Address

Postcode

Originator's identification number 6 5 9 9 5 7

Reference number (office use only)

Instruction to your Bank or Building Society:
Please pay GMC Publications Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this Instruction may remain with GMC Publications Ltd and, if so, details will be passed electronically to my Bank/Building Society.

Banks and building societies may not accept direct debits for some types of accounts.

Signature | Date

A4665

WOOD Turningz

Bottle Opener
PKBOTTCH

Bottle Stopper
BSTD1

Stainless Steel
Ice Cream Scoop
PKICESS

12"

9"

6"

WoodTurningz Exclusive

3-Size Ceramic Pepper Grinder

PKGRINDKIT

Try these and more today! http://wt.gs/WT31

WE SHIP WORLD-WIDE

www.WoodTurningz.com (888) PEN-KITS

15248 STONY CREEK WAY | NOBLESVILLE, IN 46060, USA | www.WoodTurningz.com

Record Power DML 320 Cast Iron Electronic Variable Speed Lathe

Walter Hall tests the DML 320 from Record Power

A lathe with infinitely variable speeds has significant advantages over one with a fixed range of speeds achieved by changing belts and pulleys. The first and most obvious of these advantages is the time and effort saved when a speed change is required, but perhaps more importantly a variable speed lathe enables the user to change speed 'on the fly', thus perhaps starting slowly and building up speed to minimise vibration, or adjusting during turning to the optimum speed for the work in hand.

Until recently, anyone wanting infinitely variable speed on a budget of less than £500 was limited to lathes with mechanical belt drives with expanding pulley systems. Lathes with electronic variable speed in this price range are now beginning to become available and the DML320 is one of the first to offer this facility.

Turning some faceplate work

PHOTOGRAPHS BY WALTER HALL, UNLESS OTHERWISE STATED

PHOTOGRAPH COURTESY OF RECORD POWER

The numbers

The machine is heavy and robust with a solid cast iron bed, headstock and tailstock. The spindle and tailstock quill are No.2 Morse taper and the spindle thread is m33 x 3.5, the popular standard for many modern lathes. Powered by a 1 HP DC motor controlled by well-designed electronics, the three pulley drive system allows infinitely variable speed in three ranges, 250–750, 550–1650 and 1300–3850. Speed change between the ranges is achieved by changing the belt/pulley configuration and is a straightforward procedure once the top and side covers, which are kept safely closed when in use by hexagon socket head bolts, are opened and the belt tension released by lifting the motor with the attached lever. A sticker on the rear of the headstock conveniently displays the pulley arrangement for each speed range.

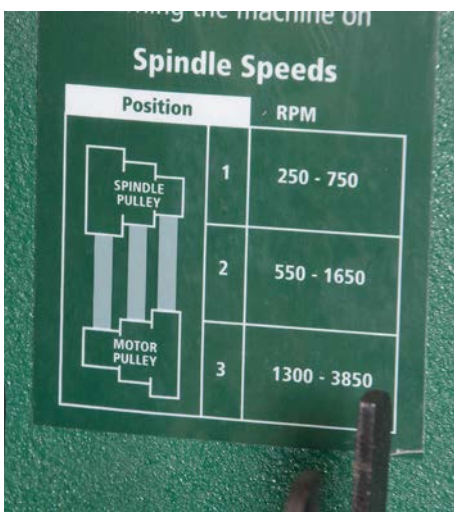
The maximum swing over the bed is 320mm and maximum between centres 510mm. During testing I turned bowls up to 300mm in diameter and 100mm deep, and the motor and its associated electronics coped admirably even with heavy cuts. The on/off and forward/reverse switches, speed adjusting knob and LCD readout are all located in a convenient unit at the tailstock end of the lathe. As a right-handed user I found this to be ideal, but left handers might have preferred the unit located in a separate unit capable of being moved to alternative positions.

PHOTOGRAPH COURTESY OF RECORD POWER

Optional extra stand

The lower section of the pulley arrangement

The spindle and upper pulley arrangement



Clearly labelled pulley speed ranges

The lever and locking arrangement for the motor

Testing

The headstock has a built-in 24 point indexing system which is of heavy construction and built into the pulley system. It works well, although I found the indexing stop knob a little fiddly to use located where it is adjacent to the headstock hand wheel. Robust though it is, I would not recommend its use as a spindle lock; suitable spanners are provided for the removal of chucks and attachments.

Headstock and tailstock alignment in the test lathe were spot on and accurate enough for precision work such as drilling or tapping for kitless pen turning. Turning between centres and off centre work were facilitated by the ability to finely adjust the speed to minimise vibration, while the heavy cast iron construction and robust adjustable base kept the whole machine rock steady throughout testing.

The tailstock is fitted with a hand wheel which also has a handle attached, a small thing but one that greatly enhances the user experience when the need to wind the tailstock in and out quickly arises as, for example, when frequently withdrawing a drill bit to clear swarf. The quill Morse taper self-ejects when fully retracted, another useful facility but one where care is needed when installing fitments to ensure full engagement of the taper has been achieved before turning begins. A knock out bar is also provided to enable removal of Morse taper fittings from head and tailstocks.

The tailstock and toolrest banjo (also cast iron) are both locked in place by very heavy cam-lock levers and slide easily on the finely machined cast iron bed but lock firmly into place. The tool post and quill lock are both fitted with Bristol locking levers which although made of some form of plastic seem robust and up to the task. The toolrest provided is also cast iron and at 200mm in length is a good general purpose compromise, although I would like to see both longer (for long spindle work) and shorter (for small items such as single barrel pens) rests available as accessories.

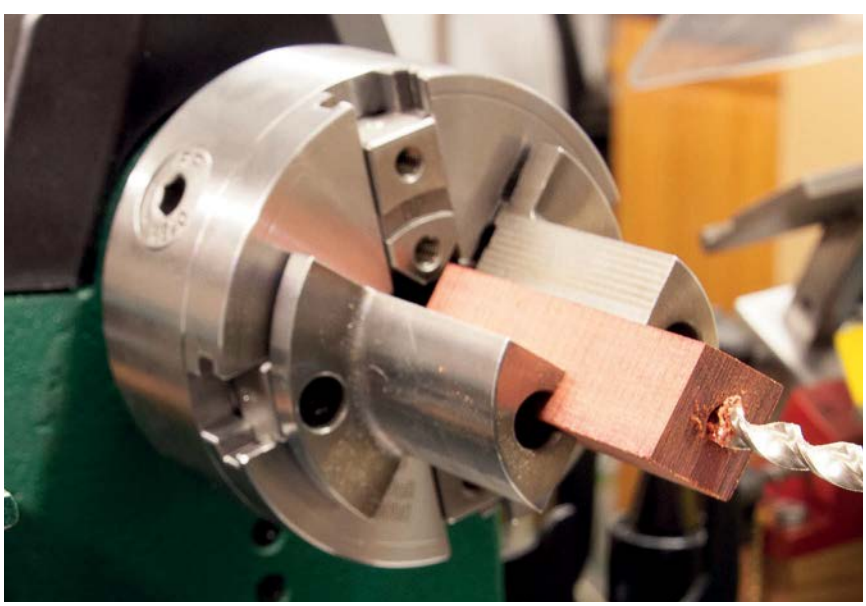
A final useful touch is the provision of a useful pressed steel tool caddy that bolts to the rear of the bed behind the headstock and can be used for the storage of drives and centres, spanners and chuck keys etc.

The results

In conclusion I found this to be a well designed and robustly built machine. It fills a gap in the market for a sub £500 electronic variable speed lathe of a reasonable size and quality. Some might see this as a beginners' lathe, but for many amateur turners, and professionals or clubs seeking a lathe for teaching or demonstrating the DML 320 could prove to be the only lathe they ever need. ●

An accessory holder

It is capable of dealing with quite large work



It is accurate between centres

TECHNICAL SPECIFICATIONS

Maximum bowl diameter	320mm (12½in)
Maximum between centres	510mm (20in)
Speed range	250–3850rpm
Motor	1hp
Headstock and tailstock tapers	2MT
Spindle thread	33 x 3.5tpi
Overall weight	52kg

Price

Lathe without stand	£499.99
Optional stand	£119.99
Optional bed extention	£119.99

Contact
Record Power
www.recordpower.co.uk

GPS

For more information please contact

sales@gpsagencies.co.uk

+44 (0) 1730 233366

www.gpsagencies.co.uk

Unit 5 Parkers Trade Park,
Bedford Road, Petersfield,
Hampshire GU32 3QN

NEW! steinert® VGM 300

At last the best of three worlds ...

- VGM = VB36 + Gamma + Maximo
- Swing over bed: 600 mm diameter (1100 over outboard attachment), 1100 mm between centres
- 3 hp, 400 V, electronic variable speed
- VB36 bayonet, MT3, 18 mm bored through spindle
- 400 kg operating weight
- Robust cast iron construction

GOOD - BETTER - BEST - steinert®

steinert® VGM300 and the whole Steinert lathe family available at:

The ToolPost · www.toolpost.co.uk · phone (UK) 01235 511101

SUBSCRIBE TODAY SAVE UP TO 30%!

SAVE 10% ON ANY OF THESE MAGAZINES – OR 30% IF YOU PAY BY DIRECT DEBIT

Traditional woodworking with the latest tools & techniques

Woodworking Crafts covers a broad range of content, including upcycling, DIY, restoration, and 'green' woodworking, step-by-step guides, community features and a broader range of skill levels.

Guidance and inspiration for ambitious carvers

Through fantastic projects and instructional techniques from top professional and talented amateur carvers, *Woodcarving* offers something for everyone. Project include wildlife, chip carving, relief, and stylized carving.

For those who love to make furniture

Furniture & Cabinetmaking is an essential read for the furniture maker. Topical features, industry news and reliable reviews complete the mix of content.

3 EASY WAYS TO SUBSCRIBE

1 CALL
01273 488005

2 VISIT
www.thegmcgroup.com

3 POST
FREEPOST RTHA -TGLU -CTSK, GMC Publications Ltd, 166 High Street, Lewes, BN7 1XU

Please quote order code A4808

Subscriber details

Title | Initial | Surname

Address

Postcode | Country

Telephone | Email

Subscription options (please tick the appropriate magazine and price)

	Pay by cheque/card SAVE 10%	Pay by Direct Debt SAVE 30%
Furniture & Cabinetmaking (12 issues)	£45.90 (UK), £57.83 (Europe), £64.26 (Overseas)	£35.70 (UK only)
Woodworking Crafts (12 issues)	£45.90 (UK), £57.83 (Europe), £64.26 (Overseas)	£35.70 (UK only)
Woodcarving (6 issues)	£21.33 (UK), £26.66 (Europe), £29.86 (Overseas)	£16.59 (UK only)

The Direct Debit Guarantee: This guarantee is offered by all Banks and Building Societies that take part in the Direct Debit Scheme. The efficiency and security of the Scheme is monitored and protected by your own Bank or Building Society. Please see your receipt for details. Guild of Master Craftsman Publications will ensure that you are kept up to date on other products which will be of interest to you. If you would prefer not to be informed of future offers, please tick this box ☐
Offer expires 31/05/2017 Plus free gift with some issues; sorry not available overseas

Payment methods (please tick and fill in chosen option)

☐ I enclose a cheque made payable to GMC Publications Ltd, or ☐ Please debit my credit/debit card

Card No.

Start date | Expires | Security code

Signature | Date

☐ Direct Debit

Instructions to your Banks or Building Society

DIRECT Debit

Name of account holder

Bank or Building Society account no.

Bank or Building Society sort code

Originator's identification number 6 5 9 9 5 7

Reference number (office use only)

Instruction to your Bank or Building Society:
Please pay GMC Publications Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this Instruction may remain with GMC Publications Ltd and, if so, details will be passed electronically to my Bank/Building Society.

Banks and building societies may not accept direct debits for some types of accounts.

Name and full postal address of your Bank or Building Society

Name

Address

Postcode

Signature | Date

A4808

MEET THE **FUTURE** IN WOODTURNING

ZEBRANO

by wivamac

3x3 COMBI

- **3 lengths** 600-800-1000 mm
- **3 drives** 1-2-3 HP
- Variable **speed**
- Adjustable **height**
- And **more**...

www.zebranowoodturning.com

Check with your dealer for launch price conditions.
Ask for a quotation or reserve your machine, see: http://wivamac.com/en/dealers

Revolutionary • Dream Machine
State of the Art • **Functional Safety Features**

162289

zebranowoodturning.com

Woodturning

Issue **304** on sale **23 March**

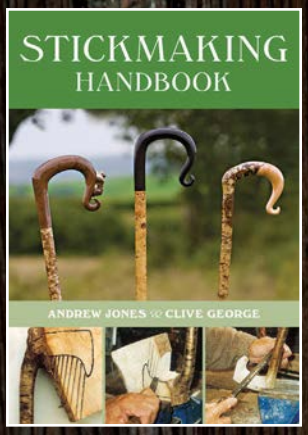
Molly Winton starts a mini series on using pyrography units to create decorative effects on turned work

Richard Findley explores ring turning and how this enables the production of multiple identical pieces

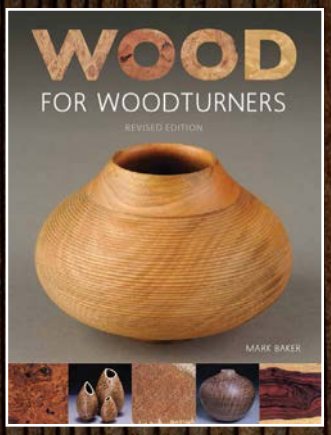
David Springett shows how to create an abstract turning using arcs

Kurt Hertzog looks at using personal protective equipment

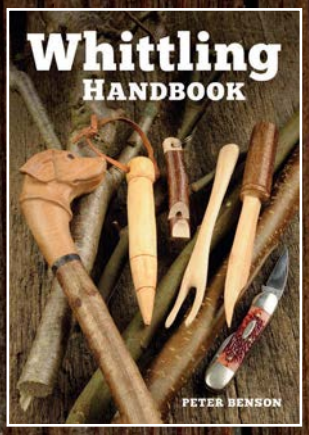
Ernie Conover takes a look at duplication/copy turning



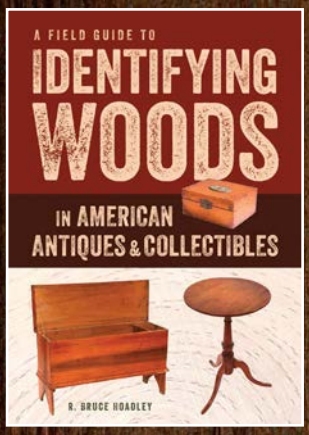
Quick Find Code: 25610
Stickmaking Handbook
£7.99



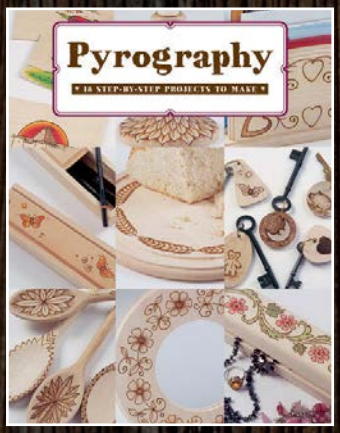
Quick Find Code: 25773
Wood for Woodturners
Revised Edition
£16.99



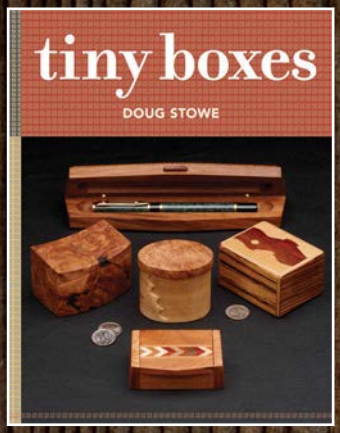
Quick Find Code: 25478
Whittling Handbook
£7.99



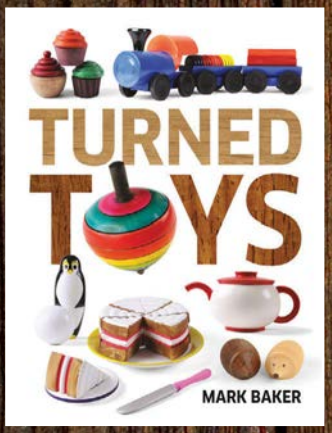
Quick Find Code: 27275
A Field Guide to Identifying Woods
£19.99



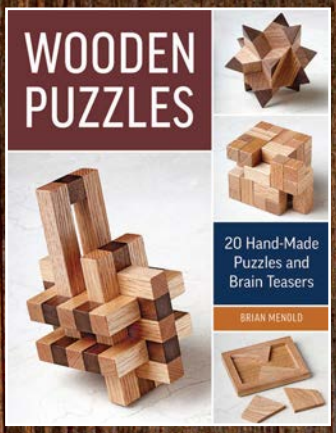
Quick Find Code: 26136
Pyrography
£5.99



Quick Find Code: 27276
Tiny Boxes
£17.99



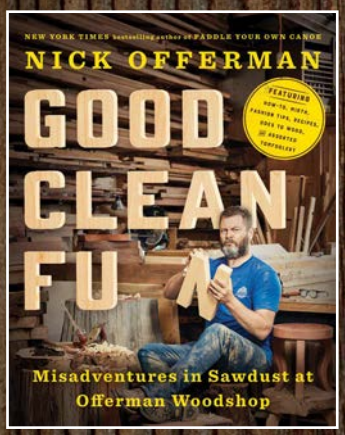
Quick Find Code: 25371
Turned Toys
£16.99



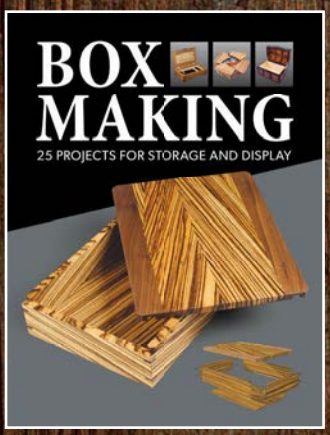
Quick Find Code: 27349
Wooden Puzzles
£17.99

NEW **WOODWORKING** BOOKS

Quick Find Code: 26498
Weekend Woodworking
£14.99



Quick Find Code: 27331
Good Clean Fun
£25.00



Quick Find Code: 26501
Box Making
£14.99

Hundreds of inspiring Woodworking and DIY books available
Visit **www.thegmcgroup.com** or call **01273 488005**

TOMACO

THE TOOL MARKETING COMPANY

DISTRIBUTORS OF QUALITY PRODUCTS

SHARP EDGE

Chisel and plane iron sharpener - take anywhere and sharpen in seconds.

narex®

Quality range of woodworking hand tools made in Europe.

COLT® PROFESSIONAL TOOLS

A quality range of professional Drill bits and accessories from Germany.

TOMAHAWK TOOLS

A quality range of professional tools and accessories.

VETO PRO PAC® TOOL BAGS THAT WORK

Range of the toughest tool bags with a 5 year downtime warranty.

CMT ORANGE TOOLS™

Quality cutting tool range which includes Router cutters, Spindle Moulding, saw blades, holesaws and many more from Italy.

FOR YOUR NEAREST STOCKIST VISIT

www.tomaco.co.uk

Kit & Tools

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

All prices are correct at time of going to press. Products from USA & overseas to UK are subject to shipping & taxes

RAZOR EDGE CROWN CYRO TOOLS

Introducing the new range of ultra high performance lathe chisels from Crown Hand Tools. The new Razor edge range of turning tools combine the use of cobalt infused M42 HSS with Crown's sophisticated cryogenic treatment process to bring a range of tools that they believe gives a cutting edge previously unseen in the world of woodturning. They feature copper and black handles, they're triple tempered, give high performance, hold a razor sharp and are hand crafted in Sheffield, England.

Available in bowl gouge sizes 6, 10 and 13mm with either a Celtic or standard grind, and spindle gouges in sizes 10 and 13mm.

Contact: Crown Hand Tools
Web: www.crownhandtools.ltd.uk

JET JWBS-14Q BANDSAW

The Jet JWBS-14Q is intended for heavy work. It features balanced cast alloy blade wheels, a superb cast iron table which can tilt from -10° to +45° and a locking rip fence, which is supported at the front and rear of the table, and extends slightly beyond the cast iron table to give an excellent capacity on both sides of the blade.

Contact: BriMarc
Web: www.brimarc.com

FROM £1099.96

CLARKE OSCILLATING BELT AND BOBBIN SANDER

The Clarke COEBS1 oscillating belt and bobbin sander has a dual mode operation which provides the convenience of a belt and bobbin sander in a single unit. It has a powerful 450W, 230V motor and is designed to allow rapid changing of belt to bobbin mode. The rotating and oscillating action provides an exceptional finish when sanding concave, convex straight or multi-curved work pieces. It is supplied with five 80g sanding sleeves, drums and an 80g sanding belt.

Contact: Machine Mart
Web: www.machinemart.co.uk

£215.98

KIT NEWS

Carter Products have released the AXE for sale, which sold out in the first weekend of release. "It's looking like the perfect combination of features and prices point for this market," a representative for the company told us.

There are three tools in the Axe range: a square, round or diamond-shaped carbide bit; the AXE (patent pending) by Carter Products was started more than a year ago in testing and development to create a better quality, more functional carbide turning tool than what was already on the market.

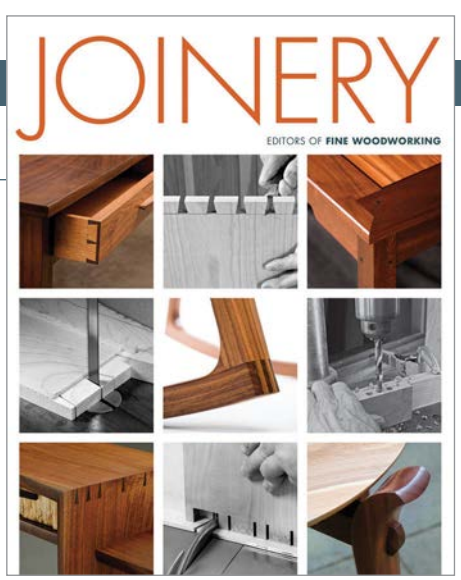
The first departure from traditional woodturning tools is the handle with its flat sides and angled rear. The tapper and flats on the rear not only allow for a more comfortable grip, but in the round finishing tool and the square rougher they allow for positive angle registration when sheer cutting with the tool slightly angled. To facilitate the transition of angled cutting, both the finisher and rougher have flat bases with slightly radius edges to allow smooth flowing movement from flat to angled. The detail diamond tool, which isn't intended to be used at an angle, is completely flat on the base. Carter Products commented: "When you combine the enhanced control and comfort handle with the radius edge bars we've set a new standard in carbide tools." The bar is full stainless steel for corrosion resistance and unlike some tools it is over built with the main bar inserted into the handle a full 125mm for added strength and long term durability. The handle is solid hard maple, sourced and machined also in the USA.

Contact: Carter Products
Web: www.carterproducts.com

BOOK OFFER

JOINERY

All woodworkers worth their sawdust know that joinery – good, bad, or indifferent – tells the unvarnished truth of how well a piece is made and how skilled the maker is. As a result, joinery is always a hot, and sometimes controversial, topic because even the masters will agree that there is no one right way to do it. Over the decades, no one has proven better at teaching readers how to make beautiful, enduring joinery than Fine Woodworking. This comprehensive and practical book demystifies the all-important subject of choosing, designing, and cutting woodworking joints. It's packed with insightful information and tricks of the trade that will advance the work of novices and seasoned craftsmen alike. Because whatever your skill level, there's always room for improvement when it comes to joinery.



ISBN: 9781784942489 **RRP:** £14.99, offer price £10.49 plus p+p
To order, please call 01273 488 005 or go to www.thegmcgroup.com and quote code R5156
Closing date: 27 April, 2017 **Please note:** p+p is £2.95 for the first item and £1.95 for each additional item

Conversion chart
2mm (5/64in)
3mm (1/8in)
4mm (5/32in)
6mm (1/4in)
7mm (9/32in)
8mm (5/16in)
9mm (11/32in)
10mm (3/8in)
11mm (7/16in)
12mm (1/2in)
13mm (1/2in)
14mm (9/16in)
15mm (9/16in)
16mm (5/8in)
17mm (11/16in)
18mm (23/32in)
19mm (3/4in)
20mm (3/4in)
21mm (13/16in)
22mm (7/8in)
23mm (29/32in)
24mm (15/16in)
25mm (1in)
30mm (1 1/8in)
32mm (1 1/4in)
35mm (1 3/8in)
38mm (1 1/2in)
40mm (1 5/8in)
45mm (1 3/4in)
50mm (2in)
55mm (2 1/8-2 1/4in)
60mm (2 3/8in)
63mm (2½in)
65mm (2 5/8in)
70mm (2 3/4in)
75mm (3in)
80mm (3 1/8in)
85mm (3 1/4in)
90mm (3 1/2in)
93mm (3 2/3in)
95mm (3 3/4in)
100mm (4in)
105mm (4 1/8in)
110mm (4 1/4-4 3/8in)
115mm (4½in)
120mm (4 3/4in)
125mm (5in)
130mm (5 1/8in)
135mm (5 1/4in)
140mm (5 1/2in)
145mm (5 3/4in)
150mm (6in)
155mm (6 1/8in)
160mm (6 1/4in)
165mm (6 1/2in)
170mm (6 3/4in)
178mm (6 7/8in)
180mm (7in)
185mm (7 1/4in)
190mm (7½in)
195mm (7 3/4in)
200mm (8in)
305mm (12in)
405mm (16in)
510mm (20in)
610mm (24in)
710mm (28in)
815mm (32in)
915mm (36in)
1015mm (40in)
1120mm (44in)
1220mm (48in)
1320mm (52in)
1420mm (56in)
1525mm (60in)

Wood Working
Wood Turning
Wood Carving

Wood Turning
tools, bowl, spindle
and pen blanks

Carving
pre-cut carving
blanks and tools

Timber
kiln dried hardwoods
from around the world

Machining Service
cutting to size, moulding,
planing, sanding

good timber

Good Timber
New Creation Farm
Furnace Lane
Nether Heyford
Northants
NN7 3LB

Quotes over the phone and online

07599 028604
goodtimber.com

Advertisers Index

Emmet Kane – 'P.S 2014'

Emmet Kane took inspiration from the work of the late Patrick Scott to make this piece

The pale tempera, gold paintings of the late Patrick Scott (1921–2014) have had a profound influence on Kane, who visited the Patrick Scott: Image Space Light retrospective exhibition, which had been organised by the Irish Museum of Modern Art, Dublin, in 2014. Kane was struck immediately by Scott's gold period and especially by one painting in particular Gold Painting 14/79. The resulting piece entitled P.S 2014 is in homage to this great artist.

As the title suggests P.S are Scott's initials. His approach to the piece reflects a sensibility and visual intelligence of Scott's work which Emmet has attempted to create in a third dimensional effect. P.S 2014, is a textured, circular form in bleached Irish burr oak, offset with a gilded geometrical form. This piece is also quite architectonic – revealing Kane's interest in architecture and in its totality the piece is spatially aware. Kane's use of the bleached oak reflects Scott's treatment of his work with the pale translucence of tempera laid onto wet canvas. Scott's ingenious use of gold in his work was fostered by journeys to Venice. Kane also looked to Scott's structural elements which appeared in his work – the solar disc, the mandala, the half-disc. Kane's circular piece takes Scott's ideas and pushes them into a sculptural, yet organic form. Hints of the Oriental also appear in P.S 2014 as the radial lines which emanate out from the form appear like a fan.

Contact: Emmet Kane
Web: www.emmetkane.com

PHOTOGRAPH COURTESY OF EMMET KANE

P.S 2014 Bleached Irish burr oak with 23c gold leaf, 2015

All Star Axminster Hobby Series lathes for the discerning woodturner

Whether you are about to take up the hobby of woodturning or have been turning for a couple of years, Axminster can offer everything you need.

★★★★★

AWSL **£220.46** Inc.vat **501245**

This small, benchtop lathe with five spindle speeds is well suited to those new to turning. The 375W induction motor gives sufficient power for the type of projects likely to be produced on a lathe of this size, and an extension bed is available providing up to 965mm between centres.

★★★★★

AWVSL 1000 **£445.96** Inc.vat **501268**

With a huge turning diameter over the bed, the big brother of the Hobby Series lathes has the capability to turn larger diameter bowls without the need to rotate the head. It has a useful 1,100mm between centres enabling it to turn longer spindles and other items. The swivelling headstock freely slides along the length of the bed so the head can be positioned conveniently to suit the item being turned. This lathe has a large 750W motor to match its other large capacities. The AWVSL 1000 comes with a pair of Axminster centres, 4-prong drive centre, revolving tailstock centre, 150mm faceplate, outboard tool rest extension, 300mm tool rest and stand.

★★★★★

AH-1218 **£303.46** Inc.vat **505020**

A good option for anyone looking for slightly larger capacities and more motor power than is normally found in small benchtop lathes. Made almost entirely of cast iron, the bed of this lathe has a finely ground top surface ensuring stability and minimal vibration. Powered by a 500W motor, this lathe is smooth and quiet during operation.

★★★★★

AH-1218VS **£327.46** Inc.vat **505021**

Similar to the AH-1218, but this model has the convenience of variable spindle speed. The lathe is powered by a 550W DC motor with electronic speed control that provides full torque at all speeds. The spindle speeds range from 500 to 4,080rpm, with a choice of two belt ratios.

For both the AH-1218 and the variable speed model, an extension bed is available giving extra capacity of 670mm between centres. These two lathes and the AWSL all come with an Axminster drive, live centres, 150mm tool rest and 75mm faceplate.

AXMINSTER THREE YEAR GUARANTEE 3

So sure are we of the quality of the Axminster Hobby Series lathes, we cover all parts and labour free of charge for three years!

AXMINSTER
Tools & Machinery

For more information call ***0800 371822****,*
search ***axminster.co.uk*** *or visit one of our stores*

All prices include VAT and may be subject to change without notice

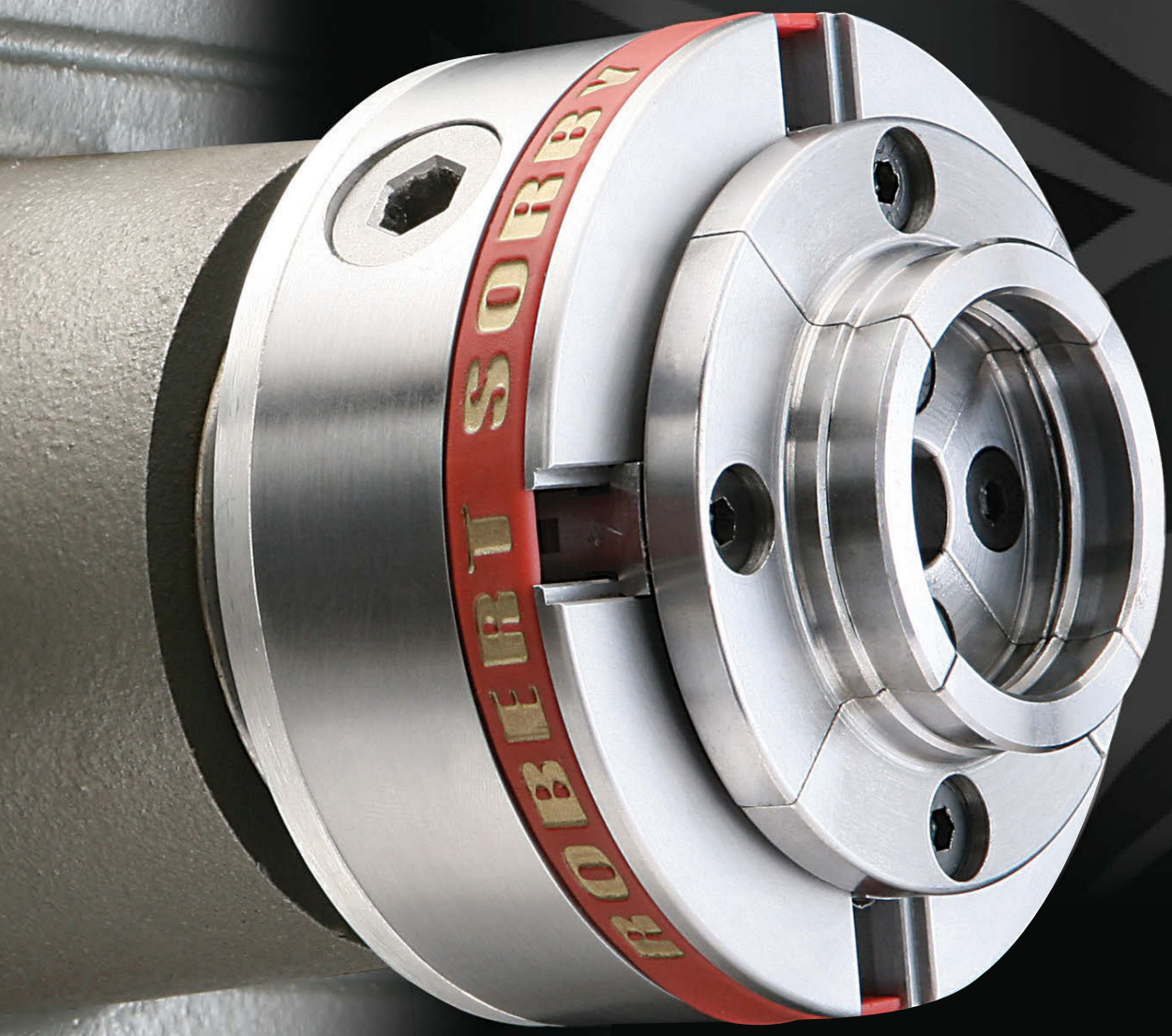
Axminster • Basingstoke • Cardiff • High Wycombe • North Shields • Nuneaton • Sittingbourne • Warrington

Axminster Store ***Nuneaton***
Saturday 4 March 2017
10am – 4pm

Robert Sorby

Patriot Chuck

Proudly Made in Sheffield, England



There's only one lathe chuck that ticks all the boxes

- ☑ Complements the majority of lathes
- ☑ Smooth jaw movement
- ☑ Huge range of jaws and accessories
- ☑ Includes 50mm jaws and screw chuck as standard
- ☑ Peace of mind with the Robert Sorby lifetime guarantee

Proudly Made in Sheffield, England

Robert Sorby

Athol Road, Sheffield, England, S8 0PA England.
T: +44 (0)114 225 0700 F: +44 (0)114 225 0710 E: sales@robert-sorby.co.uk W: www.robert-sorby.co.uk

Proudly Made in Sheffield, England