**NEW SERIES:** SOLVING YOUR COMMON TURNING PROBLEMS

DING MAGAZINE FOR WOODTURNERS THE



### PROJECTS FOR YOU TO MAKE

- Umbrella stand
- End grain boxes
- Branchwood vase
- Combined clock and weather stand

**Experimenting with** enhancing chatoyance



sculptural turnings



### **Woodturning Jigs Available** for the WG250

To complement the WG250 Wet Stone Sharpener Record Power offers an extensive range of jigs to allow the sharpening of a wide range of woodturning tools.

WG250/A Gouge Jig

Use to sharpen:

- Bowl gouges
- Spindle gouges
- V-tools

£24.99



### WG250/B Short Tool Jig

Use to sharpen:

- · Small carving tools
- Small gouges
- V-tools

£12.99



### Other jigs and Accessories Available for the WG250

### WG250/C Straight Edge Jig

Use to sharpen:

- Bevel edge chisels
- Plane irons

£24.99



### WG250/D Plane Camber Jig

Use to sharpen:

Camber planer blades up to 3" wide



### WG250/E Scissor Jig

Use to sharpen:

£24.99



### WG250/F Side Wheel Sharpening Jig

£12.99



### WG250/G Short Knife Jiq

Use to sharpen:

- Knives up to 4" in length
- Pocket knives
- Small cutlery knives

### WG250/H Long Knife Jig

Use to sharpen:

- Knives over 4" in length
- Large knives

Use to sharpen:

Carving axes

£12.99

Carpenter's axes

- £24.99



### WG250/I Tool Rest Jiq

WG250/K Diamond Trueing Tool

Use to sharpen:

- Scrapers
- Cabinet scrapers · Hollowing tools
- Spoke shave blades

Trues the stone wheel exactly round and flat.

Screw drivers

£12.99

£49.99

### WG250/O Support Arm

**Extension Kit** Allows grinding and honing without repositioning the

support arm and better access to the leather honing wheel and optional secondary strop.

### "Ease of use: 96%

Versatility: 98%

Build Quality: 98%"



Woodturning

Leather Honing Wheel Included as standard.

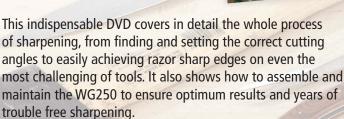
**Drip Guard** The polycarbonate water bath also features a drip guard to help protect the top of the machine and redirect drips back into the main tray.

Adjustable speeds from 90 – 150 rpm As the stone wears the diameter reduces. On most machines you cannot do anything about this, but with Record Power you can adjust the speed to compensate. In addition when you want to remove material more quickly you can increase the speed of the stone.

Left Hand Nut Thread To ensure the grinding wheel is held securely with no danger of unwinding.

### **Full Instructional DVD Now Included**

(1 ½ hours duration)













### WG250-PK/A 10" Wet Stone Sharpening System Package Deal



### **Accessories Included:**

WG250/K Diamond Trueing Tool

WG250/C Straight Edge Jig

WG250/P Support Arm

WG250/R Stone Grader WG250/S Honing Compound

WG250/T Angle Setting Gauge

WG250/U Angle Finder

RPDVD12 Wet Stone Sharpening System Tutorial DVD

**Speeds:** 90 - 150 rpm Stone Size: 250 x 50 mm Honing Wheel Size: 230 x 30 mm Weight: 16 kg

Size: H320 x W470 x D285 mm





### The Complete Sharpening System

The WG250 is the most feature packed and best value wet stone sharpening system available, with a full range of optional jigs and accessories.

Sharpen your tools straight from the box for only £299.95







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.





Live Center and Cone Set



**Compact Capacity** 



For Seated Turners



Toolrests topped with hardened rod Sizes to fit all popular lathes Warranted for Life!



Headstock

Robust is pleased to announce the appointment of Phil Irons as our exclusive UK agent.

Reach Phil at:

phil@philironswoodturning.co.uk www.philirons.com Tel: 01789 751284

ROBUST Because the making matters.



Check out all of our great woodturning products and new lathe videos www.turnrobust.com • Toll Free US: 866-630-1122 • International: 608-924-1133 New year, new start

015 is here and that usually means that people will be making some changes, or rather promises of changes and resolutions. For many, it is the usual type of thing: lose weight, get fitter, spend less money in various areas so we can go travelling and so many more things come to mind that people mention. The first two are already on my mind as I write this in late October/early November, but that gives me a few more weeks to think about what I do want to make a resolution about. At the time of writing this, I am still in the melee of trying to complete my 365 turnings. I will appraise you of success or failure in the appropriate issue that coincides with the real date of 31 December. I am currently about 125 turnings behind. So

Time will tell. For the magazine, this autumn will be our 25th anniversary. That is a milestone by anyone's standards. There are related national and local organisations and symposia that have reached or passed that milestone, too.

bearing in mind that this was a major

challenge, I wonder if I want to set such an

onerous one for next year - no matter how much of a giggle this one has been so far.

An iconic piece of work by Bert Marsh. His work inspires me to always try to do better

> Just to think how much woodturning has developed and blossomed over this time and how many people, events, products and information we can now access in order to learn, share and develop. It is quite staggering. As I write, I am mindful of how many turners shared so much with us as a community, who are no longer with us today. I think many would agree they have left us a rich legacy.

I remember a comment I once saw from the 12thcentury theologian John Salisbury – he attributed the phrase to Bernard of Chartres: We are like dwarfs sitting on the shoulders of giants. We see more, and things that are more distant, than they did, not because our sight is superior or because we are taller than they, but because they raise us up, and by their great stature add to ours." It is due to a desire to provide us with a wonderful foundation of knowledge and a willingness to share and their infectious enthusiasm that we have a rich foundation from which to develop further still.

If I do make another resolution for the New Year, it will be that I will continue to do everything I can to share all the knowledge I am able to and continue to support and encourage people to be the best they

can and share with people the fun that is turning. By all of us doing our little bit of getting involved and sharing, we should see turning continue for future generations and allow them to explore and have the fun we have. I wish you all a happy, wonderful and prosperous New Year.

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 275 January 2015

**COVER IMAGE: Toni Porto** and his 'Artificial Satellite' piece. See page 54 for the full profile. Photograph courtesy of Toni Porto



### **Projects**

- **Combined clock** and weather stand Ian Woodford turns this clock and weather stand, inspired by an antique
- a branch of apple wood
- 87 Umbrella stand Philip Greenwood turns this



**Branchwood vase** Rick Rich makes a vase from





- 14 Dealing with poor shapes In his new series, Richard Findley looks at common problems experienced by turners and offers a range of solutions
- **Turning end grain boxes** Mark Sanger looks at box making and turns two end grain boxes
- **Enhancing chatoyance** Jim Rinde experiments with enhancing chatoyance
- Starting turning part 11 This month, Mark Baker looks at using parting tools, beading & parting tools and skew chisels
- 64 What you need to know about casting resins Kurt Hertzog explains the basic techniques of casting resins
- Wild cherry In the latest installment of his timber types series, Dave Bates looks at wild cherry





### **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

### **Subscribers!**

Turn to page 74 for subscription special offers and you could save 30%!

### Features

54 **Toni Porto in profile**We find out more about Spanish woodturner and sculptor Toni Porto

### 75 In the workshop with... Chris Fisher

We speak to Chris Fisher and find out about his woodturning career

104 Featured Artist
Gabor Lacko and Patricia Spero share their pierced vase with us

### Kit & Tools

### 93 **KIT & TOOLS**

A mixture of tests and press releases showing the latest tools and products on the market. All prices include VAT, and are correct at time of going to press

### Community

3 **Leader**Mark Baker welcomes you to the first issue of 2015 and considers
New Year's resolutions and turning challenges

7 **Community news**We bring you the latest news from the world of woodturning

61 **Next issue**Find out what's in store for next month



**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.

### Conversior chart

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 (<sup>23</sup>/<sub>32</sub>in) 19mm (3/4in) 20mm (3/4in) 21mm (13/16in) 22mm (7/8in) 23mm (29/32in) 24mm (15/16in) 25mm (1in) 30mm (11/8in) 32mm (11/4in) 35mm (13/8in) 38mm (1<sup>1</sup>/<sub>2</sub>in) 40mm (15/8in) 45mm (13/4in) 50mm (2in) 55mm (21/8-21/4in) 60mm (23/8in) 63mm (2½in) 65mm (25/8in) 70mm (23/4in) 75mm (3in) 80mm (31/8in) 85mm (31/4in) 90mm (31/2in) 93mm (3<sup>2</sup>/<sub>3</sub>in) 95mm (33/4in) 100mm (4in) 105mm (41/sin) 110mm (4<sup>1</sup>/<sub>4</sub>-4<sup>3</sup>/8in) 115mm (4½in) 120mm (4<sup>3</sup>/<sub>4</sub>in) 125mm (5in) 130mm (51/sin) 135mm (51/4in) 140mm (51/2in) 145mm (53/4in) 150mm (6in) 155mm (6<sup>1</sup>/<sub>8</sub>in) 160mm (61/4in) 165mm (6<sup>1</sup>/<sub>2</sub>in) 170mm (6<sup>3</sup>/<sub>4</sub>in) 178mm (6<sup>7</sup>/<sub>8</sub>in) 180mm (7in) 185mm (71/4in) 190mm (7½in) 195mm (73/4in) 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)



### Olivers Woodturning

Unit 5 Bearsted Green Business Centre Bearsted, Maidstone, Kent, ME14 4DF



Telephone: 01622 370280

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

# Restock your Woodturning Consumables for 2015

Simon Hope Abrasive Discs (10 Pack)

100 packs also available All 75mm Grits £2.95 All 50mm Grits £1.96 All 37mm Grits £1.75

Follow us on Twitter and Facebook Buy online to earn Reward Points Sign up to our newsletter Join our forum



& Sealants





Cellulose Sanding Sealer 500ml £9.95 - 1ltr £17.95 Shellac Sanding Sealer 500ml £11.75 - 1ltr £21.25 Acrylic Sanding Sealer 500ml £10.75 - 1ltr £19.25 Melamine Lacquer 500ml £10.75 - 1ltr £18.74 Acrylic Lacquer 500ml £10.94 - 1ltr £19.75 Friction Polish 500ml £12.75 - 1ltr £22.95 French Polish 500ml £11.95 - 1ltr £21.50 Hard Wax Oil 500ml £12.50 - 1ltr £22.50 Lemon Oil 500ml £9.95 - 1ltr £17.95 Tung Oil 500ml £9.95 - 1ltr £17.75



## How to find us



### Safety Cloths 10 pack £4.50 3 Pack £1.95

afety Cloth





### Round & about

We bring you the latest news from the world of woodturning as well as letters from the Woodworkers Institute forum and important dates for your diary from the woodturning community

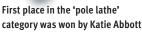
### Worshipful Company of Turners' biennial turning competition 2014

he Worshipful Company of Turners recently held their biennial woodturning competition, which took place from 28-29 October, 2014. The exhibition was held on the Wednesday and was described as 'a unique one day pop-up exhibition of contemporary woodturning'. This was held in the historic Apothecaries' Hall in the City of London. The exhibition allowed everyone who was interested to see not only the competition pieces, but also various other displays of work by turners and some of the work produced in workshops run by charities supported with lathes from the Turners Company.



Stuart Mortimer was presented with the Master in Turning award by Fiona Woolf, the Lord Mayor of London and The Master of the Worshipful Company of Turners

First place in the 'Lady Gertrude Crawford' category was won by Richard Hoodless with his blackwood (Dalbergia melanoxylon) pewter box





John Edwards' cube box with clock was the first place winner in the 'open Fiona Woolf' category

First place in the 'AWGB plain turning senior' section went to Nick Agar for this walnut (Juglans regia) platter

The Apothecaries' Hall in London is an old and wonderful building and was an eminently suitable venue to show such works. Turning has a rich heritage dating back millennia and the competition and exhibition certainly gave a nod to the past as well as showing what is currently being done by people in this century.

The winners were awarded their prizes by the Master of the Company – Colonel John Bridgeman CBE, TD, DL – as well as the Lord Mayor of London, Fiona Woolf.

At this event, the second Master in Turning Award was given to Stuart Mortimer. This is an award given in recognition of many years of outstanding services given to the craft, attaining the highest skill and excellence.

The next turning competition, Wizardry in Wood, will be held in conjunction with The Worshipful Company of Turners and is due to take place in 2016. For updates as they become available, see details below.

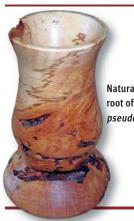
**Contact:** The Worshipful Company of Turners **Tel:** 020 7236 3605

Web: www.turnersco.com



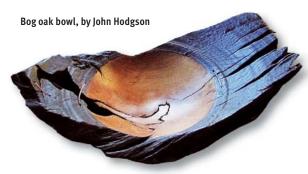
Tom Streeter being presented with a prize by the Lord Mayor of London, Fiona Woolf





Natural-edge vase in spalted root of felled sycamore (Acer pseudoplatanus), by P3NROY





### 2015 show round-up



A sharpening demonstration from last year's show

### Yandles Spring Woodworking Show

The annual Yandles Spring Woodworking Show attracts thousands of visitors from across the UK who enjoy the informal and friendly atmosphere that is created within the surroundings of the historic timber yard in Somerset. This unique setting in a working timber yard is what sets this show apart. As always, the Yandles site will be transformed by marquees as leading craftspeople demonstrate tools and techniques and share advice and top tips. Aimed at both amateur and professional woodworkers, the show will include displays by top international manufacturers, traders and publishers. Check the Yandles website for the latest exhibitor list. It's also a great opportunity to grab a bargain as there will be a show sale and lots of great offers on discounted timber. If you want to know more about what a Yandles show is like, there's a short video about the Spring 2014 show on the website. The show is free to attend. Other attractions at the Yandles site include a gallery of local arts and crafts and the hobbies shop.

When: 10–11 April, 2015
Where: Yandles, Hurst Works, Martock,

Somerset TA12 6JU Web: www.yandles.co.uk

### The Midlands Woodworking and Power Tool Show

Due to the success of the 2014 show, the 2015 event will be held in the George Stephenson Exhibition Hall, the largest hall at the Newark Showground. This means there will be space for even more demonstrations and stands.

When: 27–28 March, 2015
Where: Newark Showground, Lincoln Road,
Newark-on-Trent, Winthorpe, Newark,
Nottinghamshire NG24 2NY
Web: www.nelton.co.uk



David Ellsworth talking with an attendee about a piece at the 28th annual symposium

### AAW 29th Annual International Symposium

This year's event features demonstrations by the world's best turners, exceptional learning opportunities for all levels as well as inspiring, motivating exhibitions and galleries. You can expect to see state-of-the-art woodturning equipment and products for sale, as well as a welcoming turning community that shares your passion. Pittsburgh, the location for the 2015 event, is a vibrant city wrapped in three rivers, alive with natural beauty, compelling history and a thriving cultural district.

So far, the demonstrator line-up includes, Stuart Batty, Jerry Bennett, Michael Brolly, Christian Burchard, Nick Cook, David Ellsworth, Lyle Jamieson, Steve Kennard, Craig Kirks, Alain Mailland, JoHannes Michelson, Pascal Oudet, Joey Richardson, Avelino Samuel and Mark St. Ledger. More will be announced soon.

This year's event will once again feature the POP Artist Showcase and the Instant Gallery. Special exhibitions include 'Creativity in Construction' and 'Merging'. More details can be found on the website.

When: 25–28 June, 2015 Where: Pittsburgh, USA Web: www.woodturner.org

### Utah Woodturning Symposium

Be sure to set aside 14–16 May, 2015 for this year's symposium, which promises to build on last year's success. Registration opens on 12 January, 2015 and we will bring you further details of the demonstrator line-up and events once they become available. In the meantime, see the website, which gives you details of previous years' events and there is also a great gallery of past work and demonstrations.

When: 14-16 May, 2015

Where: TBA

Web: www.utahwoodturning.com



The instant gallery at the Utah Woodturning Symposium





Natural-edge cherry (Prunus spp.) bowl, 405mm dia. finished with lemon oil, by ronnyeelen

### The 2015 AWGB International Woodturning Seminar

The 2015 AWGB International Woodturning Seminar will take place from 7–9 August at Loughborough university. Prices for the event, including accommodation and all meals, starts from £375. Watch this space for further details!

When: 7-9 August, 2015

Where: Loughborough University, Epinal Way,

Loughborough LE11 3TU Web: www.awgb.co.uk

### European Woodworking Show 2015

This year's event will mark this show's sixth year and once again will be held at the historic Cressing Temple Barns in Essex. The European Woodworking Show has established itself as one of the most interesting woodworking weekends in the UK, with top class demonstrators from the UK and overseas, covering a breadth of woodworking disciplines and crafts.

In 2013, Christopher Schwarz appeared at the show as well as Deneb Puchalski from Lie-Nielsen Toolworks, David Barron, Phil Edwards, John Lloyd, David Charlesworth, Peter Tree, Michel Auriou, Jon Tiplady, Rachel Huggett, Peter Berry and Lenka Pavlickova. Bob Neill, Mark Hancock, Graeme Priddle and Nick Agar demonstrated woodturning and the AWGB plus local woodturning clubs were also present. We will bring you details of this year's event very shortly, but in the meantime, keep checking the website for updates.

When: 12–13 September, 2015 Where: Cressing Temple Barns, Witham Road, Braintree, Essex CM77 8PD

Web: www.europeanwoodworkingshow.eu

### Oregon Woodturning Symposium

Be part of the first Oregon Woodturning Symposium, which takes place in March this year. The event allows you to interact with today's top demonstrators and up and coming woodturners in a friendly, informal learning environment. There will be over 40 demonstrations to choose from and a full schedule of special events over the three days. Demonstrators include Jimmy Clewes, Mike Mahoney, Trent Bosch, Kirk DeHeer, Dale Larson, Dave Schweitzer, Lyle Jamieson and Molly Winton.

When: 6-8 March, 2015

Where: Linn County Expo Center, 3700 Knox Butte RD Albany, OR 97322, USA

Web: www.oregonwoodturningsymposium.com

### Liberon reigns as online expert

iberon is delighted to launch its new and improved website, making the brand fully accessible for both professionals and consumers alike.

Optimised for both tablet and mobile the new site has a modern, flat design using full-screen homepage video content to create a premium feel without losing the traditional values of the brand. It is the only platform where users can view all 300 product lines available within the Liberon ranges. In addition, the store locator is searchable by postcode and town, giving both DIY and professional users the ability to find the nearest stockist of Liberon products while out and about.

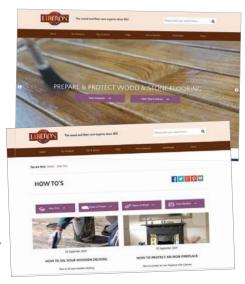
The site also provides users with full coverage calculators, recommended tools and application techniques, and all are easily accessible to ensure the consumer has all of the information needed to complete the job, including the correct amount of product and associated tools required.

Built on the cutting-edge Sitecore platform, the new website provides personalised

content for each user. Plus it ensures the 'step-by-step' and 'how to' information in video content is of exceptional quality.

**Contact:** Liberon **Tel:** 01797 367 555

Web: www.woodcareexpert.co.uk



### Makita supports TeamRun 12 and raises money for breast cancer charities

Makita UK has donated pink cordless drill drivers to Team Run 12 as a contribution towards their challenging fundraising programme. Led by 23-year-old Becky Beard, the team's aim is to raise £25,000 for Cancer Research UK and Breast Cancer Care (BCC) in 2015.

Becky has set herself a goal to run 12 marathons in 12 months, including in London, Wales and New York, and having now completed nine of the events the team has already raised £19,000. Becky has every confidence that the £25,000 target will be met

The Makita drill is a pink version of the DF330D Lithium-ion, 10.8v drill driver, complete with one 1.3Ah battery, fast charger, drill bit set and carry case. Popular with professional construction workers it is small and compact and ideal for DIYers who want to get busy around the home.

Visit www.teamrun12.co.uk for more information about Becky's excellent work. And for more information about Makita UK, visit www.makitauk.com.

Contact: Makita Tel: 01908 211 678 Web: www.makitauk.com



Makita's Mak1485 pink drill for Breast Cancer Care

### **Precision. Innovation. Simplicity.**





### No Measuring. No Marking. No Chalk Lines.

Attaches to almost any Circular Saw for precise, no-nonsense ripping through large plywood and MDF panels up to 61mm (24") wide.



Find your nearest stockist Kregtool.eu







### JOIN THE WORLD'S AUTHORITY ON WOODTURNING

Become part of AAW, the organization with global membership that professionals and hobbyists turn to for inspiration, education, and information about woodturning tools, techniques, projects, safety, and more.

As an AAW member, you'll receive six issues of American Woodturner journal annually. You'll get free digital downloads of publications like Woodturning FUNdamentals, an educational series that offers projects, tips, videos, and information on techniques to advance basic turning skills. You'll have access to the single largest collection of woodturning information anywhere in the world. What's more, you'll be able to tap into the expertise of more than 15,000 members globally who share your passion for woodturning.



Enter Promo Code: AAW4879

AAW OF WOODTURNERS

sales@hamletcrafttools.com www.hamletcrafttools.com +44(0)1142321338

Join AAW today at www.woodturner.org

An interchangeable scraper (ref HS187B) also available







### **DISTRIBUTORS OF QUALITY PRODUCTS**



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



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



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



Quality range of woodworking hand tools made in Europe.

### MORAKNIV\*

Range of knives for trade and carving. Swedish quality, swedish steel. Made exclusively in Mora Sweden.



Router cutters, spindle moulding cutters and saw blades from Italy.

FOR YOUR NEAREST STOCKIST VISIT www.tomaco.co.uk



### **RICHARD FINDLEY**



Richard is a registered UK professional woodturner living and working in Leicestershire. He discovered woodturning while working for his father as a joiner. Richard makes all kinds of work to commission,

from replacement antique components, walking canes and stair spindles, to decorative bowls. It is the variety of work that he loves. He also offers demonstrations and a range of woodturning supplies.

richard@turnersworkshop.co.uk www.turnersworkshop.co.uk

he vast majority of articles in magazines, books and on the internet are prescriptive. That is, they show a project, offer a series of steps to follow and by doing so, you should achieve the desired result. What they often fail to address is what happens when you feel like you followed each step, apparently as explained in the article, but things still aren't working! My aim with this series is to address the common problems that turners face and help you to achieve your goals, hopefully much easier than before. The first problem I intend to look at is that of struggling to produce good shapes when turning. This could be when turning a bowl

or lamp base in faceplate turning, or beads and coves on spindle turning. I will attempt to look at the reasons poor shapes develop and what you can do to prevent this.

### The problem

No matter how hard you concentrate when turning, or what you do with the tool, that smooth curve ends up lumpy or ridged or pointy or rather square.

### **Basic solutions**

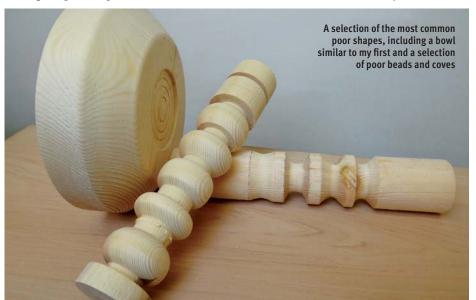
I like to simplify things. Life is hard enough without complicating it further, so there are some basic things you can do to help solve the problem of poor shapes:

• Recognise poor shape

- Understanding tool control
- Stance, body position and movement
- Visuals seeing the shape
- Sharp tools, well shaped and well used Let's look at each of these points in turn...

### Recognising poor shapes

Before you can address poor shapes, it helps to know what they look like and the reasons that they are poor. While to an extent good shapes are subjective – some people will like one shape or a combination of shapes and others may not – the core shapes that make up the common forms have been perfected over millennia, from the great civilisation of the ancient Greeks and even long before. While I'm no student of history, it seems to





A classic 'beginner bowl' showing poor form

me that good form is all about flowing curves. The best shapes do just that: flow. Bowls should have smooth flowing curves, beads and coves should do likewise. This isn't to say there can't be different shapes, changes in shape or even straight bits, but these transitions are best done with deliberate, crisp, even sharp changes in direction. Wishy-washy meandering forms generally don't work so well.

A common problem, especially in bowl turning with beginners, is actually being able to make the gouge cut in the direction that is planned, rather than just pushing until a cut is achieved and followed until the cut is lost, which often ends in a turner's first bowl. These first bowls often have wide bases, angular sections and vertical sides – I know, mine did! Everyone has to start somewhere, but it should be noted that this is not a form that will ever set the world of turning alight.



Compared to even the simplest of curved bowls the 'beginner bowl' looks heavy, whereas the second looks more elegant

### Tool control

With a little knowledge of what a good shape should look like, the next thing to understand about turning is that the bevel of the tool gives control and directional guidance. Essentially, the bevel will point in the direction that you go in, so you need to make sure your movements of the handle enable this.

It doesn't really matter whether you are turning a bowl or details on a spindle here, if you are using a gouge, the same rules apply. It is possibly easier to explain with a series of pictures of turning a bowl.

You should be able to see the direction that the bevel is pointing in – remember I'm



The starting point, turning the base of a bowl. Here you can notice the handle is out to the right side and over the lathe bed



The start point turning the inside of a bowl



Close up of the bevel pointing in the direction of cut

talking about the bevel here, not the flute. The photos show that to produce even a simple curve on a bowl, the handle has to move in a wide and smooth arc.

When you look at this in relation to spindle work, the same principle applies. When cutting a bead, the flute will begin upright, the bevel pointing straight forwards. As you roll the gouge, to enable you to cut in to the wood and produce the classic bead shape, the handle will need to swing, gradually, allowing the tool to cut, controlled by the bevel, towards the base of the bead. While



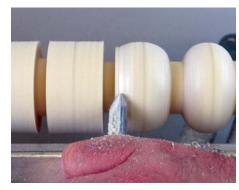
The finish point, turning the base of the bowl – notice how far the handle has had to swing to produce the simple curve on this bowl



The end point turning the inside of a bowl – again notice the amount of handle movement required to produce the curve

this movement is much less than when turning a bowl, it is none the less required.

In both cases, it becomes apparent that to produce a smooth curve, you will need to smoothly swing the handle in the right direction, just the right amount, at the same time as the tool slides across the toolrest. The key is to produce the curve you intend to, rather than push the tool and hope, and end up settling with the shape that happens.



Rolling a bead



### ■ Body movement

Once you have grasped the concept of the bevel giving you directional control, you should be able to produce something resembling a bead or rounded bowl. The next issue is that the curve probably won't be as smooth as you would like. There may be ridges or dips along the surface, despite rolling the tool and swinging the handle. The next thing to focus on is the movement in the rest of your body. You don't just turn with your hands and wrists; the movement of turning should come from your body, combining your core muscles and even your legs and hips.

Something that people commonly find is that as the tool handle swings, they often feel as if they are getting in their own way. The reason for this is a lack of body movement. Throughout your turning, the gouge handle should be by your side, usually around your waist level. By moving your whole body, rather than just your hands, wrists and arms, you will naturally stay out of your own way. The added bonus of this additional movement will be that the shapes you produce will be smoother.

The best example of this is when turning a cove. The tip of the tool will be moving perhaps only 12mm, but because the bevel needs to point in the direction of travel, the handle will begin its movement off to one side. As the cut continues, the handle will swing to a position more square to the timber. This arc, at the end of the handle, could be as much as 100mm or more, despite the tiny amount of movement at the tip of the tool. Because you are an extension of the tool, you need to move with the arc of the tool handle. Throughout the movement, the handle stays by your side and by moving your body with the handle, you will be able to produce a smoother curve without getting in your own way.

It doesn't matter what discipline within turning you prefer, whether it is bowls, hollow forms or spindle work, smooth body movements translate into a smooth surface on your work. Making sure you can move smoothly from the start of the cut - say from the rim of the bowl, to the end of the cut, at the bottom of the inside of the bowl for example - will enable you to produce the smooth curve between the two points. Every time you have to stop and reposition yourself, or adjust because you lose balance, it will mean having to stop, sort yourself out and try to pick up the cut where you left off. This is of course possible, but makes things harder than they should be.

Noticing the full movement required in a given action will help this situation. Be aware of your start position at the beginning of the cut and notice where you will need to be at the end of the cut. Position yourself in such a way that you can complete the action



My stance when spindle turning – note the tool handle is by my side  $% \left( 1\right) =\left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1$ 



The start position when turning a cove



The end position – note the amount of handle movement required to complete the cut

as smoothly as possible. Often, if you start a cut in a comfortable stance, by the end of the cut you are off balance or contorted into an uncomfortable position, making completing the cut incredibly difficult. By practising the cut, like a golfer might practice his golf swing, you can adjust your stance and your weight distribution and balance in such a way that you can complete the cut without being thrown off balance and getting into a knot.

### **TOP TIPS**

1. Each cut is a practice cut. Whatever you are making, it will take a number of cuts to remove waste material from a roughed out shape to a finished curve, ready for sanding. Treat each of these cuts as a practice cut. Notice if you feel off balance, if the curve you are cutting is left smooth after the gouge passes it, if the tool handle is away from your body or digging you in the stomach. Tiny adjustments in stance and body movement can transform your turning



My start position when turning the inside of a bowl – note the wide stance and my weight over my right leg



My end position when turning the inside of a bowl – notice my feet haven't moved, but my weight is now over my left leg, which allows full body movement while maintaining balance

### **Visuals**

While turning requires the use of all of our senses, arguably the most important is sight, but if you are looking in the wrong place, or focusing on the wrong thing, you are not maximising the use of this key sense.

When we first start turning, our focus is almost entirely on the tip of the tool. By doing this and ensuring the shaving is being cut in the correct part of the tool's edge, a catch can be avoided, but because the focus is on the tip of the tool, it is easy to forget about the shape that is being formed. As skill levels increase along with confidence that a cut can be completed without a catch, I would highly recommend trying to shift your focus from the tip of the tool to the shape being formed, best seen at the top edge of the spinning work. Some people find it easy and indeed natural to look here, whereas others have to force themselves to do it, but by at the very least, being aware of the shape you are forming, as it happens, you can make tiny adjustments to your movements to ensure the curve you wanted is what is being produced.

See the effect of only focusing on the tip of the tool – it gives no real impression of the shape you are making

An experienced turner can work focusing solely on the form, paying little attention to the tool

### **TOP TIPS**

- 2. To achieve good shapes and finish, good lighting is essential. A well-lit workshop, with additional spotlighting for detailed work, will make life much easier
- 3. When working with very light or very dark timbers, it can be helpful to lay a piece of dark or light card on your lathe bed to help see the profile you are working on



Having a full view of both the shape being turned and the tool gives the best chance of success

### ■ Really 'seeing' the shape

A tip I have used a number of times, including on the jewellery box from my last mini-series, is to make a sample of your proposed project and spray it black. By spraying the item black, it removes the distractions of wood grain and focuses attention to the form that you have produced. By ignoring the timber, which can be distracting – just think of all those 'oh what a lovely piece of wood' comments you hear at any craft fair or show – you can really focus on the form and for the first time, actually 'see' the shape you have turned, then decide if it needs to be improved.

### Self critique

I am something of a perfectionist, that is to say that, almost everything I have ever made, given the chance, I would remake and improve in some way. If you can't be honest with yourself and everything you make is perfect, then how can you improve?

### Sharp tools

As this series progresses, I will be looking at all sorts of problems that people face in their turning journeys and one solution that will constantly be referred to is keeping your tools sharp. I will be writing an article later in the series about the common problems that turners face when sharpening, but for now, it is still relevant to say that sharp tools give you much better control and results than blunt tools. Blunt tools have to be forced through the timber, often leaving a trail of torn grain behind, whereas a sharp tool will easily slice through the timber, giving you much finer control. It is good practice to constantly keep your tools sharp.

Something that I do with all of my gouges,



My sample jewellery box sprayed black to help me focus on the form

both spindle and bowl, is to remove the heel of the tool. Fresh from a grinder, the heel is harsh, almost sharp, and rubs the timber behind the cut. 'But you should rub the bevel' I hear you say! 'Rubbing' the bevel does rather suggest heavy pressure. I decided to have a closer look for myself and here is what the dictionary definition says:

**Rub** – to subject the surface of a thing or person to pressure and friction, as in cleaning, smoothing, polishing, coating, massaging, or soothing...

But actually, a better verb than 'to rub', would be 'to glide', which can be defined as:

**Glide** – to move smoothly and continuously along, as if without effort or resistance, as a flying bird, a boat, or a skater...

When you remove the heel of the bevel, straight away the contact between the hard metal of the tool and the relatively soft timber becomes less harsh. You can feel the difference just by feeling the heel with your finger. I have experienced an improved surface on my turning just with this tiny alteration to the tool. Combined with the action of gliding the bevel, rather than rubbing the bevel, this will certainly help with the aim of producing smoother shapes in your turning. •

### **MYTH BUSTERS:**

### Myth – if the shape isn't quite right, just sand it until it is!

Well, yes and no... If anyone ever tells you they have never, or never do this, I suspect a little white lie! However, 'tweaking' a bead in American tulip (*Liriodendron tulipifera*) or pine (*Pinus spp.*) is easily done, try to adjust the curve on a bowl with abrasives or adjust the curve of a cove on oak (*Quercus robur*), and all you will do is overheat and misshape the wood. Some woods, such as yew (*Taxus baccata*), will even begin to crack under the heat. It is always best practice to turn the best shape you can with a sharp tool and just use abrasives to smooth and prepare the timber for finishing





Close up of the grind on my gouges: top - 60°, 10mm bowl gouge; bottom - 35°, 12mm spindle gouge

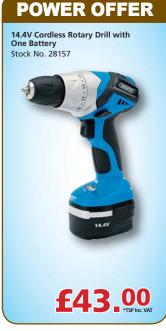


### DRAPER) 005

www.drapertools.com



















610 x 170 x 190mm Canvas 20L Tool Bag

£7.99

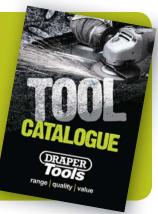
Stock No. 72971





the **NEW Draper Tools** Catalogue

**Ask your local Draper** stockist for a copy.









facebook.com/drapertools



drapertools.com/draperty

Draper publications are available as a free digital editions app.





\*Prices are typical, may vary in-store and include VAT @ 20%. Correct at time of going to press. E. & O. E.

### TIME FOR A MINI

### REVOLUTION

The Mini 'Revolution' is a competitively priced compact versatile hollowing tool designed to the same high Sheffield standard as its larger 'Revolution' models.

Ideal for smaller projects or for those wanting to start out in the craft of hollow form turning without purchasing a larger system.

Articulated modular design gives full flexibility for turning a wide variety of vessels including bowls, boxes, vases and hollow forms. Accessing those hard to reach places is easy with the Mini Revolution.

NOW AVAILABLE FROM ALL CROWN TOOL DEALERS WORLDWIDE

SEE THE MINI REVOLUTION IN ACTION- www.marksanger.co.uk

All items shown hollowed using the Mini Revolution





- Includes fully adjustable 'Super Ring' cutter for ultra efficient material removal without clogging.
- Includes scraping cutter for general hollowing or finishing cuts.
- Compatible with all other cutters from the 'Revolution' series.
- Slim-line articulated tip design for unrestricted access to those hard to reach cuts.
- For the turning of end grain and cross grain woods both seasoned and unseasoned.
- · Hand made in Sheffield, England.

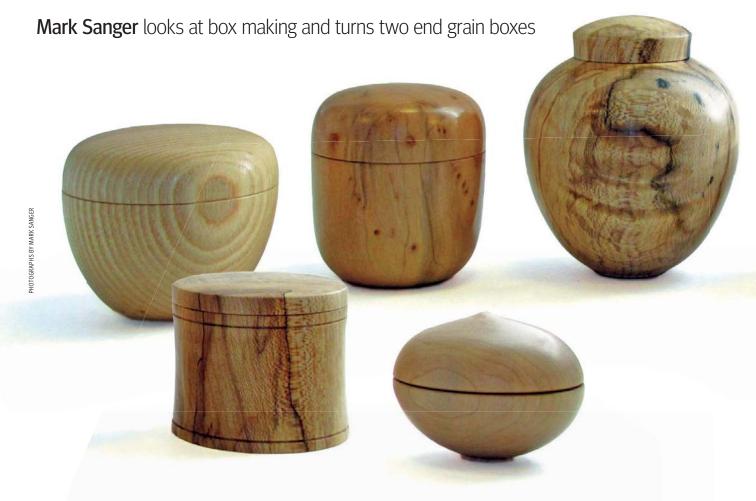


Tel. 0114 261 2300 Fax. 0114 261 2300

Web. www.crownhandtools.ltd.uk Email. Info@crownhandtools.ltd.uk

# The Woodturning People The Woodturning People The Fig. Shop Website Mail Order Courses Upper Farm, Church Hill, Sutton, Dover, Kent. CT15 5DF Tel: 01304 366 360 www.stilesandbates.co.uk sales@stilesandbates.co.uk

### Turning end grain boxes



aking boxes has always fascinated me as there are so many variations and styles to work with that the possibilities are endless. Despite this there are only two main types to turn, those with solid or hollowed lids. In this article I am going to concentrate on the process of turning two boxes using end grain fully seasoned wood blanks, this being where the wood is mounted for turning with its grain running in line with the spindle axis of the lathe. Offcuts and sections of exotic or expensive timbers too small for other projects are an excellent source of wood for box making, but there are also many commercially produced alternative materials available that are ideal, such as acrylic/resin, faux ivory, horn and tortoiseshell to name a few.

Another great aspect of turning boxes is that most designs can be made using a basic set of gouges and scrapers, which many of us purchase when first starting turning. Of course, there are also dedicated tools such as screw threading tools and cranked scrapers for more complex designs, however, these are not included here as for the most

part they are not needed but as you delve deeper you may wish to investigate these further. As with any project, before we start we must choose a suitable piece of wood, so let us look at this now.

### **Wood selection**

Any sound timber can be turned although close grain and dense timbers such as yew (Taxus baccata), beech (Fagus sylvatica) and fruit woods are most suited as these take fine detail with good strength. For these projects, fully seasoned wood is used for which we have two options: to include the pith as with branch wood or to use a processed blank with the pith excluded, as in Diagram 1. If you decide to use branchwood, it must be fully seasoned or there is a high risk of it cracking from the pith outwards, making a blank without the pith a more stable and often preferred option for box making. No matter how well seasoned wood is, there will still be a very small amount of movement after turning due to the internal tensions being released. This movement, while minimal,

can be felt in a box by the fit of the lid which tightens in two places as it is twisted in the box one full rotation. Boxes turned to finish size in one, as with the first project here, will due to this movement suit a looser fitting lid and is seen in the design of tea, coffee and sugar caddies to name a few. If a stable snug lid is required, then the box is first rough turned from a seasoned blank and allowed to settle for several days before finishing, as shown in the second hollow lid box project.

### MARK SANGER



Mark is a professional turner living and working in Dorset. He specialises in creative turning that incorporates texturing, colour and mixed media. Mark has written numerous woodturning

articles, demonstrates the craft, runs courses and has produced DVDs on the subject.

info@marksanger.co.uk www.marksanger.co.uk



### ■ The perfect fit

A snug fitting lid that 'pops' when removed is often viewed by woodturners as the correct fit for a box, however, the correct fit is one that suits its intended use. A pill box, for instance, should have a tight fitting lid preventing it from falling off when carried in a pocket or bag, while an earring box suits a free fitting lid allowing it to be removed and replaced with one hand leaving the other free to remove and replace earrings.

### Cutting with the grain Cutting with the grain is essential for efficient

Cutting with the grain is essential for efficient wood removal and for achieving a good finish from the tool. The outside of an end grain project is turned from outside to centre while hollowing is achieved by cutting from centre out, as shown in Diagram 2.

### Drilling and hollowing out

Drilling and hollowing out the projects is achieved with a spindle gouge that has a fingernail grind; to drill out set the toolrest so the gouge cuts on centre with the tool shaft and flutes horizontal. Mark the depth on to the gouge shaft and drill out, withdrawing regularly to clear shavings while continuing to depth in stages. To hollow, present the spindle gouge to cut on centre with the shaft trailing slightly downwards as with a scraper. The gouge edge is presented to cut at 10 o'clock with the tool shaft being rotated anti-clockwise 10-20° so the cutting forces are supported by the toolrest. The cut is from inside out using the intersection of the tool shaft and toolrest as a fulcrum.

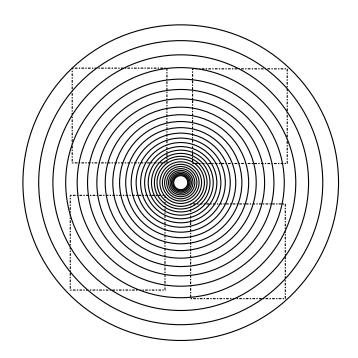
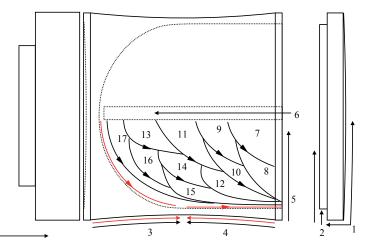


Diagram 1: processed blank with the pith excluded



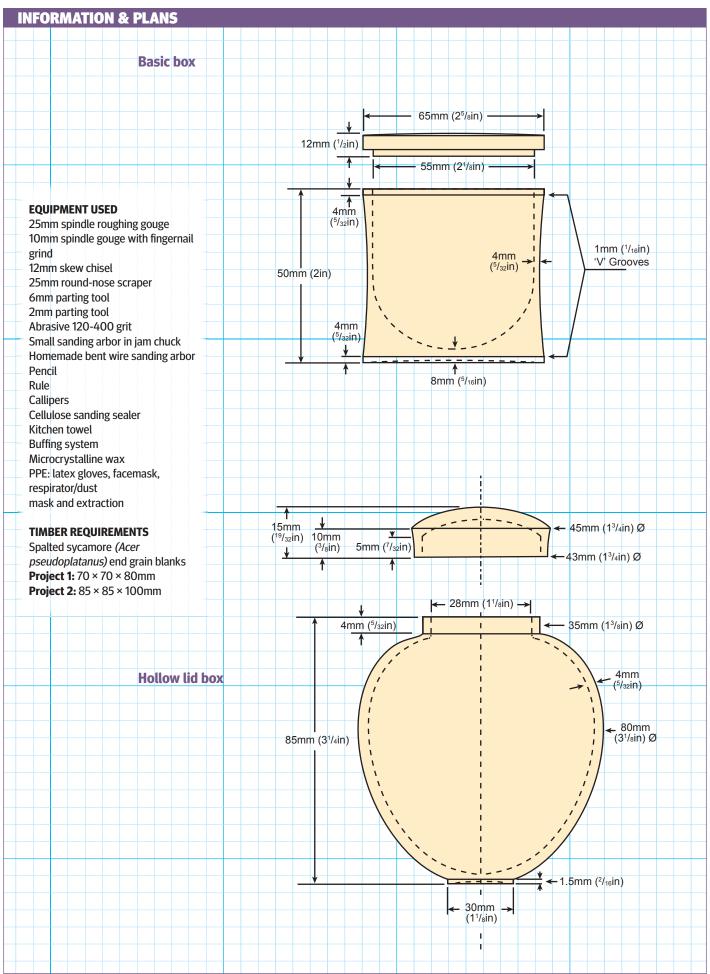
Finishing cuts — Diagram 2: cutting sequence



Drilling out Hollowing out

Shaping cuts





### ■ Making a basic box

1 Mark the centre at both ends of the blank and mount between centres. Rough to the round with a spindle roughing gouge and produce a spigot at one end to suit your chuck jaws, then remove and tighten into the chuck. Refine the outside and clean up the front face using a 12mm skew chisel or 10mm spindle gouge

Mark a line on the outside 10mm down from the top and a second for the base of the box using a pencil and rule. Use a 6mm parting tool to part in left of the first line to a depth of 8mm to produce a spigot that will fit into the box, making sure it is parallel

Use the toe of a 12mm skew chisel to produce two small 'V' grooves 4mm down from the rim and 4mm up from the baseline drawn

Use a 2mm parting tool to part the lid off from the box leaving a small registration of the spigot on the box. Alternatively, leaving 10mm of waste, stop the lathe and cut through the remaining with a fine saw

Drill to depth and hollow out as described with a 10mm spindle gouge. Open out until the lid fits tightly into the box and refine with a round-nose scraper, here the edge of the scraper has been ground further around into the left edge allowing for scraping on the side of the boxes

Finish the inside with abrasive from 120-400 grit giving a loose fit for the lid to take into account any later movement in the wood. The abrasive is stuck to a small sanding arbor in a handle making it easier to reach down into the base

The next step is to use the 2mm parting tool to part the box off from the waste at the line as with the lid. Angle the tool slightly up into the base to produce a concave surface so it sits without rocking

Finish the base and underside of the lid with abrasive attached to a sanding arbor held in a waste piece of wood and chuck

### **HANDY HINTS**

- **1.** Minimise the heat generated when sanding by reducing the lathe speed while applying light pressure only to the abrasive. Excessive heat can cause small cracks in the end grain fibres, which you will find are almost impossible to remove
- **2.** Always keep your tools sharp and, if required, resharpen for the finishing cut





















Apply sanding sealer to the remaining box and lid, buff using a buffing system and compound and apply microcrystalline wax

The finished box should look something

"Apply sanding sealer to the remaining box and lid, buff using a buffing system and compound..."





### Making a hollow lid box

Mark the centre at both ends of the blank and mount between centres. Rough to the round and produce a spigot at each end for your chuck. Mark a line 20mm down from the front face, part in left of this line with a 6mm parting tool and callipers to produce a spigot 35mm diameter

Rough down the profile for the lid and base Leaving a few millimetres oversize. Make sure you leave a shoulder at each spigot for mounting in the chuck

Tighten the base spigot into the chuck and bring up the tailcentre for light support. Using a 2mm parting tool, part into the spigot leaving a registration on the base of the lid, stop before parting all the way through, stop the lathe and cut through the remaining with a fine bladed saw. Hollow out the base and the internal profile of the lid with a 10mm spindle gouge leaving both undersize





### "Refine the internal profile using a 10mm spindle gouge..."

Remove from the lathe and allow to settle for a few days within your home or continue as next producing a loose fitting lid taking into account any movement in the wood that may occur

5 Once settled, mount are to the subtract Once settled, mount the lid in the chuck, 2mm and mark accurately on the front face. Refine the internal profile using a 10mm spindle gouge, stopping short of the line

With the toe of a 12mm skew chisel held horizontal on the toolrest, produce a parallel recess up to and removing part of the line drawn







Finish with abrasive from 180-400 grit being careful not to alter the profile or size of the recess. Apply liquid cellulose sanding sealer, allow this to dry and then buff with safety cloth or kitchen towel with the lathe set to 1,000rpm. Remove from the chuck, make a jam chuck to suit the internal recess of the lid and jam onto this placing kitchen towel between to prevent marking to the finished surface. Profile the top of the box to the final shape using a 10mm spindle gouge. Finish with abrasive, then remove

Mount the base into the chuck, refine the diameter of the spigot checking regularly with the lid until you have a tight fit. Remove and set to one side

Refine the outside profile using a 10mm spindle gouge, leaving it thick at the base for hollowing in the next step

1 Measure the height of the base, subtract 6mm and mark onto the shaft of the gouge. Drill to depth and hollow to final profile, checking wall thickness with callipers as you progress. Remember the base is thicker than the final profile so take this into account; refine the surface by taking a few fine finishing cuts

1 Finish the inside and outside with abrasive by hand from 120-320 grit. Here I have a double length of stiff wire wrapped in duct tape onto which hook-and-loop has been glued to hold the abrasive. This can be bent to the required profile for finishing the inside

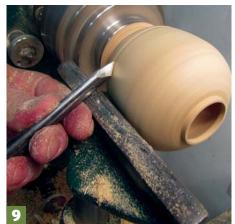
"Remember the base is thicker than the final profile so take this into account; refine the surface by taking a few fine finishing cuts"

Reverse the base onto a jam chuck bringing up the tailcentre for support. Refine the base using a 10mm spindle gouge down into the foot; concave the underside of the foot so it will be stable in use, stopping a safe distance from the tailcentre and finish with abrasive by hand as before. Stop the lathe and cut through the remaining waste with a fine bladed saw, refine with a sharp chisel or power carver and finish with abrasive by hand

13 Apply cellulose sanding sealer to the outside of the base and lid, buff with a buffing system, apply microcrystalline wax and buff with a soft cloth

14 Your second completed box should look something like this •



















### For Quality Woodturning Tools, Timber & Advice







### Now Stocking **Axminster Chucks, Lathes & Machinery**







Available on the App Store

**f e m p** 

Call us: Email us: Search for us: 00353 (0)45 883088 sales@thecarpentrystore.com www.thecarpentystore.com

M7 Business Park, Naas, Co. Kildare, Ireland. Drop into us: Like us: www.facebook.com/thecarpentystore



Olean, New York, USA 1-716-373-6434 +001 (716) 373-6434 International

### WE SHIP ALL OVER THE WORLD!!

Exotic Turning Blanks • Pen Blanks **Burls • Figured Lumber Unique Boards** 



75+ Exotic Species including: African Blackwood, Bocote, Bubinga (Waterfall), Cocobolo, East Indian Rosewood, Ebony, Olivewood, Pink Ivory.

### **VISIT OUR WEBSITE:**

www.westpennhardwoods.com

Use Coupon Code: GMC10 on your next order to receive 10% OFF Coupon cannot be combined with any other offers and excludes the following species: Tulipwood, Kingwood, Cocobolo, Amboyna, Waterfall Bubinga and Ebony







elmersalue.eu





Off-Center Jig Kit \$85

### New Design





Stopper Kit Reg. \$85 Special \$80

See website for Specials and more Products



nilesbottlestoppers.com

717-486-5232



WOODTURNING SUPPLIES

The Old Hyde, Little Yeldham, Nr Halstead, Essex CO9 4QT

Tel 01787 237291 Fax 01787 238522 www.peterchild.co.uk



### **Precision. Innovation. Simplicity.**





### Enhancing chatoyance

Jim Rinde experiments with enhancing chatoyance



20mm-thick pine (Pinus spp.) boards heated to temperatures up to 288°C





Jim is a retired chemist. He spent 40 years doing basic and applied research. In his professional career he spent 25 years working with epoxy resins and has 21 US patents. He started woodturning in high

school and when he returned many years later he decided to use what he knew, the scientific method and epoxy resins, in his woodturnings. He is mainly known for his turnings made from wood or bamboo and epoxy resins.

jerinde@verizon.net

hat happens if you combine woodturning with ceramic processing? A potter throws a pot, dries it, puts a glaze on it and then fires it at a high temperature. What I am talking about is turning an object from wood and then firing it in an oven. Because I am working with wood I won't be going to as high temperatures as potters do with clay, but a temperature of 200-250°C will change wood and yield an interesting new material that is no longer just wood. Heating wood to 200°C temperatures will darken it, and, in fact it will, serendipitously, enhance the chatoyance of the wood.

People have studied wood for a long time and they have found that wood contains three materials: hemicellulose, cellulose and lignin. The amount varies with the wood species, but wood roughly contains one third of each. Of these materials, the hemicellulose is the most thermally unstable and is reported to

decompose starting below 280°C. Cellulose decomposes next and lignin is the most thermally stable material, therefore, heating wood at lower temperatures will decompose mostly the hemicellulose. Hemicellulose is a polymer made up of various sugars that are joined together to form a giant molecule. Its decomposition can be compared with the process we are all familiar with when we caramelise the sugars in onions to make French onion soup.

### Caramelised wood and charwood

What are caramelised wood and charwood? They are woods that have been partially decomposed at temperatures above 200°C for caramelised wood and about 240°C for charwood. It involves a change of chemical composition and it is irreversible. These are

materials that are on their way to becoming charcoal. The technical term for the process is called 'pyrolysis'. In general, pyrolysis of wood produces gases like hydrogen, methane, carbon monoxide and dioxide, and liquid products such as water, acetic acid and methanol, leaving a solid residue richer in carbon content, char. Extreme pyrolysis at very high temperatures leaves mostly carbon as the residue.

If you heat wood to less than 190°C, then you still have wood properties and no colour change. If you heat wood to 200-240°C and the colour darkens and the wood loses strength, this is what I call 'caramelised wood'. Heating wood to 260-300°C turns the wood black; it becomes very porous and loses weight and strength. At the lower end of this temperature range, you still have wood-like properties and therefore, I call it 'charwood'.

At the higher temperatures you can produce charcoal. I find caramelised wood to be very fascinating. I can take a piece of cheap pine (Pinus spp.) wood, turn a vessel from it, apply a finish and create an ordinary looking vessel with the expected look. However, I can make a similar vessel, made from the same wood and heat it in an oven to 200-230°C and recover a vessel that has lost weight and darkened in colour. The thing that adds interest is that I don't have complete control over the pyrolysis process, so some parts of the wood may darken more than others, leading to interesting results. After pyrolysis, the exciting part is opening the oven and discovering exactly what you produced. Did things turn out as expected? Are the colours right? Or was the temperature too low or too high?

If I now apply a clear finish to the vessel, I get a piece with none, some, good or amazing chatoyance. Note: I am not creating the chatoyance; I am enhancing what is already present in the wood, but not readily seen. Therefore, not every piece will have great chatoyance, only those with the right structure in the wood. The chatoyance is hard to see in a still photograph, but it shows up well in a movie.

If I heat the wood to higher temperatures, it turns black. This is what I call 'charwood'. At this point it still has the look and feel of wood, something like synthetic ebony. It has lost more weight than caramelised wood and is more porous, but can have good strength properties.

### The process

The process I am discussing is the pyrolysis of wood or the anaerobic - without oxygen - decomposition of wood. The first question is how to exclude oxygen? There are several methods such as barriers, inert gases or oxygen getters. The simplest, cheapest and easiest method that I have found is to wrap

the wood in several layers of aluminium foil. It may not be perfect, but it works well. At low temperatures - below 177°C - the main thing happening is the loss of water and a little decomposition and, therefore, the need for the exclusion of oxygen is probably not necessary. I get virtually identical results with or without a foil wrap at less than 190°C.



My wood ovens with pollution reduction system

### The equipment

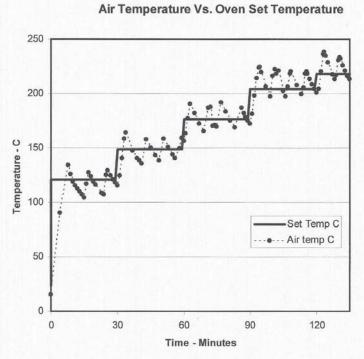
I started with a toaster oven, bought cheaply from a charity shop, and later added an electric stove with oven so I could heat larger pieces. I was able to get a used oven that was cosmetically challenged for £60. I also bought a dual channel digital thermocouple thermometer - about £12 - so I could measure what the temperature actually was in the wood and ovens. The pipework on the

right side of the large oven conveys hot gases and smoke from the oven vent into a water filled bucket, to reduce air pollution. The oven I have is a conventional oven without a fan. The temperature in the oven varies from the set temperature. I have graphed the actual temperature inside my large oven as a function of time and compared it with the set temperature. Note the temperature goes 14-17°C above and about 8°C below the set temperature. Ovens with fans may do a little better, but to get good temperature control you will need to get an oven with a proportional controller.

### Working with solid woods of various thicknesses

I had the idea to see what happens when you heat wood to higher-than-normal temperatures, but was unwilling to use 'good' wood. Therefore, I looked around and found some pine (Pinus spp.) and ash (Fraxinus excelsior) woods and used these in my initial experiments. Since I was planning on using the process ultimately on turned items, bowls etc, I started testing wood slabs cut to about 10mm thick, as that is a good wall thickness for many bowls.

My first concern was whether I could produce pyrolysed wood without cracks. In my first experiment I heated the wood on the maximum temperature setting on my toaster oven and set the wood on fire. Wrapping the wood in foil helped, but at these high settings, the actual temperatures were probably higher. I saw flames coming from the foil and the result was black and broken charcoal. Therefore, I started experiments where I heated the wood to lower temperatures and



Celsius	Fahrenheit
93	200
121	250
149	300
177	350
204	400
232	450
260	500
288	550

Air temperature compared to the oven set temperature



10mm-thick pine and ash (Faxinus excelsior) wood heated to 213°C for 0, 15, 30 or

Temperature (°C)	Time - minutes	Sample removed
100	75	No
157	30	No
191	30	Yes
204	30	Yes
204	45	Yes
204	75	Yes
204	105	Yes
218	30	Yes
232	30	Yes

Second batch to higher temperatures for darker colour:

Temperature (°C)	Time - minutes	Sample removed
135	40	No
163	40	No
210	30	Yes
232	30	Yes
246	30	Yes
260	30	Yes
274	30	Yes
288	30	Yes

started using longer heat-up times. This resulted in wood pieces with no cracks, less colour change and no fires.

I did a series of tests where I heated some ash for two hours at several temperatures and measured the weight loss. Heating to 190°C produced a weight loss of 14%, 210°C lost 17%, 250°C lost 25% and 288°C lost 30%. The higher the temperature, the greater the degradation and this weight loss is permanent.

After working with 10mm thick wood, I decided to try caramelising thicker wood and pyrolysed some 19mm-thick pine boards. I bought a 2.4m long board and cut it into 200mm square pieces and wrapped them in aluminium foil. Since these were thicker, the heating would be slower and pieces would be removed at several temperatures, so that woods could be obtained with different colours. The heating profile was – see above right.

All the pieces warped a little, none cracked. The samples removed at 274°C and 288°F were almost black in colour, very porous and had poor strength properties. The boards were flattened and glued together and a hollow form was turned from it. The best chatoyance is seen in the wood heated to temperatures of 205-232°C.

### **Even thicker**

For this experiment I used a fir (*Picea abies*) at  $50 \times 100$ mm and also I turned two eggs –  $50 \times 63$ mm – from dry pine, wrapped them individually in foil and heated them at  $120^{\circ}$ C,  $148^{\circ}$ C and  $176^{\circ}$ C for 60 minutes at each temperature and then for 35 minutes at 232°C. All three pieces changed colour to a soft tan and did not crack. The photo shows the larger fir piece unfinished, while the other pieces have a clear epoxy finish.



50mm-thick woods after heat treatment

### Going even thicker

I turned a 100mm diameter solid wood sphere from dry pine, wrapped it in foil and heated it as follows: 120°C, 148°C, 176°C and 205°C for one hour each and for 30 minutes at 212°C. The sphere survived without cracking, but had little colour change. It was put back in the oven and heated at 176°C for one hour and at 232°C for two hours.



Caramelised 100mm dia. pine sphere

### Results

The sample removed after heating at 190°C showed little colour change and the colours got darker as the temperature increased.



20mm-thick pine boards heated to temperatures up to 288°C



Pine vessel made from caramelised wood



This time the colour was darker and it also survived without cracking. It lost 10% weight and when finished, had some chatoyance, but was black over most of the surface.

### Caramelisation

Caramelisation as I am doing it, is a bulk property. That is, the properties are changed completely through the thickness of the wood. Because of this we can choose to either final turn a piece and then caramelise it or rough turn, caramelise and then do the final turning. The photograph above shows a cutaway piece of pine, 50mm max. thickness, turned and caramelised, showing the uniform colour through the thickness.

To understand the process of heating wood and how fast the temperature rises in the centre of a board, I did a series of tests using 25mm ash wood cubes. I drilled a small hole to the centre of each cube, so I could insert a thermocouple into the centre and measure the temperature. In the experiments I preheated the oven to the set temperature, 121-288°C, and then placed the cube, which was double wrapped in aluminium foil, into the hot oven and began to record the temperature vs time. The results are summarised in two ways: the maximum temperature reached and the time to reach 90% of the oven temperature (results as below).

Looking at the column for 'maximum wood temperature compared to the oven temperature, it shows that at oven

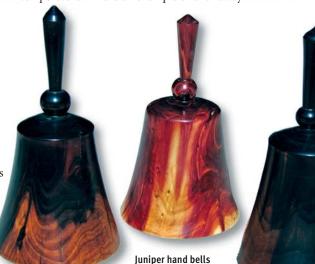
temperatures from 121-177°C the wood temperature was slightly above the oven temperature. This is the expected result for an inert material. While at oven temperatures from 205-288°C, the wood temperature exceeds the oven temperature by 30-44°C. This shows that the wood is decomposing and liberating heat, which raises the wood temperature. This is called an exothermic reaction. Note: the higher the oven temperature, the higher the maximum temperature.

I also did one test using a 45mm diameter jacaranda (*Dalbergia nigra*) sphere heated in a 288°C oven and recorded a maximum temperature that was +267° above the oven temperature! This is an example of a runaway

exothermic reaction and will occur with thick wood heated too rapidly.

The second set of results on the time to reach 90% of the oven temperature is useful in determining how long it takes for a piece of wood to reach nearly uniform temperature. The results show that it takes longer times at lower temperatures. This is mainly due to moisture present in the wood, equilibrium moisture content, that must be evaporated and diffused out before the temperature can rise much above the boiling point of water. These wood cubes started at about 15% moisture content.

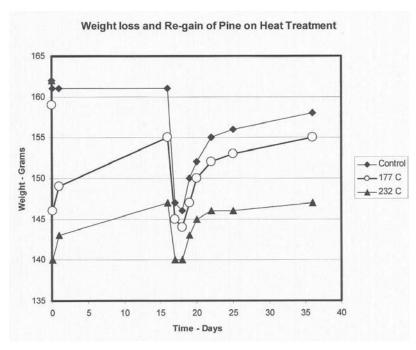
Variability in



An example of variability is shown by two vessels turned from freshly cut jacaranda. The wood was a branch cut two days before turning. The

wood was microwave dried to a weight loss of about 30% and then turned. Both vessels were caramelised in my large oven at the same time; however one turned dark, while the other had only a darker rim and a few darker

		Maximum wood temperature	Time to 90% of oven
Temperature °C	Max Temp, °C	compared to oven temperature, °C	temp. minutes
121	124	+3	80
149	154	+5	53
177	185	+8	49
205	235	+30	44
232	258	+26	39
260	298	+38	28
288	332	+44	28



Weight loss and regain of pine on heat treatment

areas. What was the difference? The vessel that turned darker was turned first and sat for a day and dried some more before it was caramelised. The second vessel was turned and caramelised within a few hours of turning and therefore contained more moisture. Both were 4mm thick at the rim, but the lighter vessel was thicker toward the bottom. The higher moisture content and greater thickness both prevented the lighter vessel from reaching as high a temperature and therefore, it caramelised less.

### Moisture gain after heating

I have read a report in the literature that stated the swelling and shrinkage of wood due to changes in humidity was mainly due to the presence of hemicellulose. Therefore, degrading it should reduce this sensitivity. To determine if this is true, I did an experiment where I heated three pine pieces, cut from the same board, and measured the weight loss and re-gain as a function of heating temperature. The pieces of wood were all the same size and weight,  $19 \times 90 \times 240$ mm and about 160 grams. They were wrapped in foil and heated. One sample was a control and was not heated, while the others were placed in the oven and one removed after one hour at 176°C. The other sample was heated for one hour at 176°C, one hour at 205°C, and one hour at 232°C. The weight changes are shown in the graph. After 16 days, the samples, including the control, were placed unwrapped, in an oven set to 107°C to dry for six hours. The samples were removed and sat at room temperature and humidity to re-gain moisture. The graph shows that the wood heated at the higher

temperatures lost more weight and was less sensitive to moisture loss and re-gain with time. This would be important in segmented vessels.

### Acoustic properties

Heating wood at high temperatures is a form of accelerated ageing. It will boil off any volatile materials in the wood, harden resins, speed the reaction of oxygen with any drying oils present and decompose some of the wood's hemicellulose. All these things lead to an increase in the stiffness of the wood and will change the acoustic properties. In an effort to see if I could detect such a change,

I made three wooden hand bells, shown on the left, from the same log of juniper wood. Two of the bells were heat treated, one at 205°C and the other at 232°C. The colour turned dark brown as expected, with the bell treated at 232°C being darker. The bells were fitted with steel clappers and when rung, there is a difference in sound.

### **Finishes**

Most of the pieces I have made are finished With a clear epoxy resin; however, I have tried several other finishes and all seem to work well. The only one that I had a problem with was Waterlox, which because of its darker colour, turned the piece darker than I would have liked. Linseed oil and tung oil were fine as was a water-based acrylic.

### Some examples

The caramelised pine bowl below shows great chatoyance. Before caramelisation it was 230mm in diameter, 63mm high and had a wall thickness of about 6mm and weighed 245g. It was wrapped with three layers of aluminium foil and was caramelised in my toaster oven using the following schedule: 149°C for 25 minutes, 177°C/55min, 205°C/20min and the maximum temperature setting for 20 minutes. After this heat cycle, it weighed 211g, had lost 13% weight and had a nice teak colour. It was coated with a light coating of thinned clear epoxy resin, which was totally absorbed. The next day it was re-coated with epoxy, cured and later polished. The final weight was 283g, so the bowl absorbed 72g epoxy or about 25%.



Caramelised pine with wonderful chatoyance







Caramelised pine hollow form with great chatoyance

### SAFETY

- Caramelising wood must be done outside. You will be generating smoke and smelly toxic vapours
- Wear gloves. Both the oven and objects are very hot and burns occur quickly
- It is very important to ensure you have fire suppression available before you begin. Remember to unplug the oven before squirting water into an electric oven
- 4. When wood decomposes, it liberates gases that will accumulate in the oven and when mixed with air may form a potentially explosive mixture. The heating element can ignite this mixture and result in a mild 'whoosh' when the door is opened. Opening the door will dilute the gases, but will add oxygen to the mix. Limiting the amount of wood in the oven at one time, 1kg or less, and keeping the door closed seems to work best to minimise this risk

### Pine hollow form

The vessel on page 34 was rough turned and then sat for two weeks before final turning. It weighed 283g and was  $150 \times 95 \times 6$ mm wall. It was wrapped with three layers of aluminium foil and caramelised in my toaster oven. Settings were as follows:  $121^{\circ}$ C/30min,  $177^{\circ}$ C/30min,  $205^{\circ}$ C/20min, and  $212^{\circ}$ C/10minutes. It had little colour change. The next day it was reheated using the following schedule:  $177^{\circ}$ C/30min,  $205^{\circ}$ C/30min,  $212^{\circ}$ C/20min, and then the max setting for 10 minutes.

It now had a nice teak colour and weighed 253g, a 10% weight loss. It was coated with clear epoxy resin and cured, resulting in great chatoyance. Final weight was 320g of 67g weight gain of epoxy resin showing that the wood was very porous after caramelising.

### Making false woods

Heating wood at high temperatures also changes its appearance. An example is a bowl I made from alder (*Alnus glutinosa*). The bowl, shown below, is seen to be a pale



Alder bowl before caramelising

pinkish tan colour. After heating to 205°C the wood darkened noticeably and now looked like walnut (*Juglans regia*). When finished with clear epoxy the bowl looks exactly like walnut.

In addition, if you start with a dark coloured dense wood and heat it to 232°C you can make very good looking false ebony (Diospyros spp.); however, it will probably have a lower density as shown in the following examples. My object here is not to fool people, but to provide a less expensive black wood. Samples of oak (Quercus robur), walnut, purpleheart (Peltogyne porphyrocardia), olive (Olea hochstetteri) and tiger stripe wood were heated in an oven at 121°C, 149°C, 177°C, 205°C and 232°C. The colour of the woods turned brown to black and lost 11-20% weight. The density before and after heating, weight loss and colour are shown in the following table. The density of ebony is 1.07g/cc in the sample I have.

Oak	0.70 g/cc	0.65g/cc	11 %
Brown			
Walnut	0.67	0.61	15 %
Black			
Purpleheart	0.80	0.75	12 %
Black			



Alder bowl after caramelising



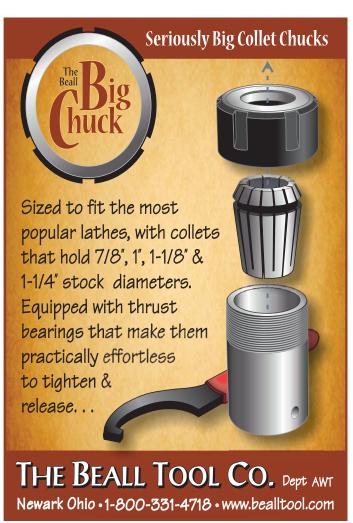
The oak and tiger stripe woods were put back in the oven and cooked at 232°C for 30 minutes more to yield a darker colour



The purpleheart was cut into 75mm square pieces and glued up with maple (Acer saccharum) and turned into a hollow form

### **Summary**

I have shown that heating woods to moderately high temperatures, 205-232°C, while wrapped in aluminium foil to exclude oxygen can lead to some interesting and exciting results. The various areas in the wood respond to these high temperatures in different ways that lead to increased contrast, and if the wood has the right structure, to increased chatoyance. There are lots of woods I have not worked with and would think will respond well to heating figured maple comes to mind. In addition, heating dense woods to 232°C can produce passable good false ebony. The whole area of heating wood for longer times, days to weeks, at lower temperatures, 121-190°C, needs exploration which I will leave to others.







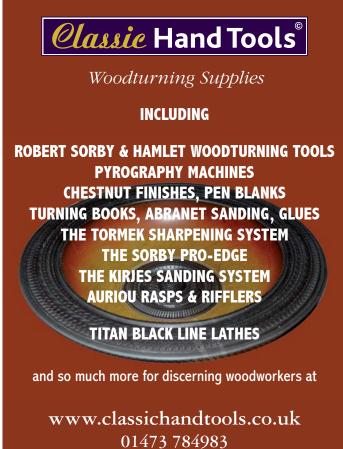




Find us on Facebook www.chestnutproducts.co.uk

mailroom@chestnutproducts.co.uk

Stockist enquiries welcome



Mail order to UK & Europe





## Combined clock and weather stand

lan Woodford turns this clock and weather stand, inspired by an antique

his project evolved from wanting to make a combined weather and clock stand and was inspired by one I saw in an antique clock shop. Together with a little artistic tweaking that was needed from the original, I hope you find the result as pleasing as I do.

It involves both uncomplicated spindle and faceplate work but accurate measuring is required. The inserts are freely available and the project is designed around clock and weather inserts of 70mm bezel diameter. The beauty of this project is that all the inserts are interchangeable, so you can insert whatever takes your fancy or is most useful for you. I tend to favour having a clock on one side and a thermometer on the other and that's the combination I've used here, but a barometer or hygrometer could

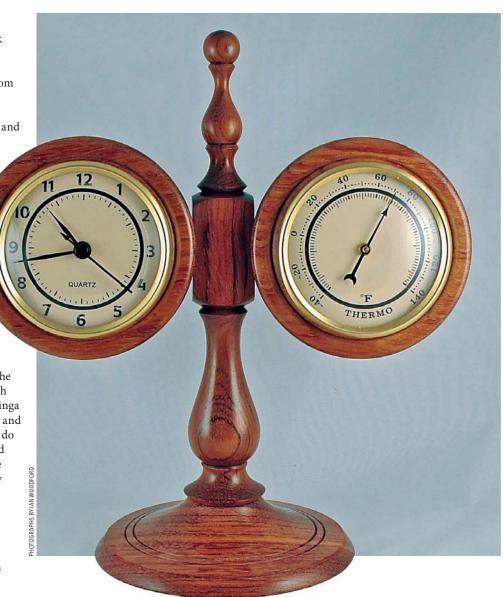
also be used.

The choice of wood I leave entirely up to you, however, a close grained wood is the preferred option as it will hold detail much better. My choice for this project was bubinga (Guibourtia demeusei) because the colour and grain markings, although very attractive, do not overpower the design. Whatever wood you choose, try to cut the blanks from the same plank, as this will ensure reasonably good grain and colour matching.

All the tools and inserts required are detailed in the information list and all are basic to our woodturning enjoyment. My finish, after sanding to 400 grit, is with sanding sealer and then buffing with carnauba wax but you can obviously use the finish you are most familiar with. A good white wood glue is used to assemble all the components together at the end.

From the design drawing you can see there are four basic elements for this project: a base, a central column and two identical side elements, or carriers as I call them.

As the turning and drilling of the central column needs to be accurate, I prefer to turn this in three parts as it reduces the chance of making a mistake and having to scrap the whole blank.



#### IAN WOODFORD

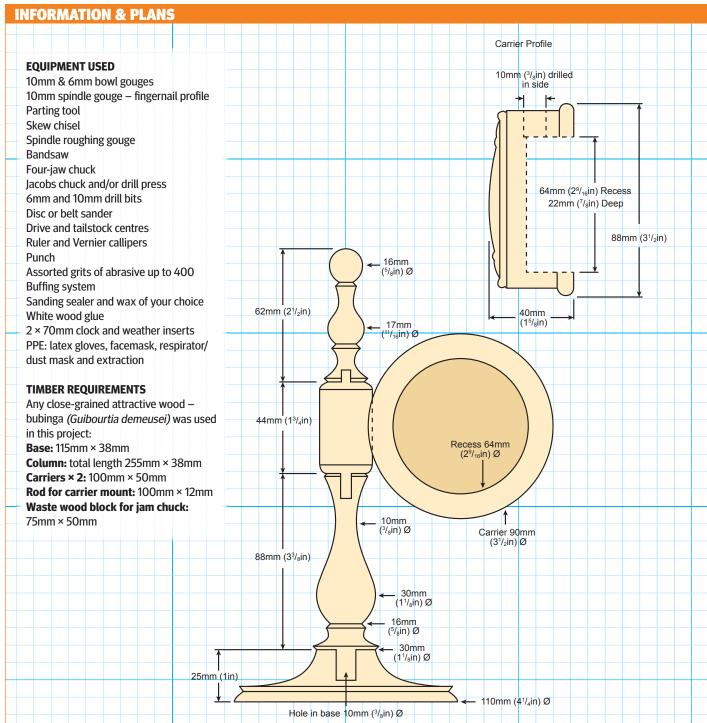


lan spent his working life selling with a large pharmaceutical company covering a huge area in Australia and also in the UK. He has been turning for many years and since taking early retirement, has developed his skills and enthusiasm. He supplies various craft shops, exhibits at craft shows and has sold at the prestigious London Pen Show, although he now only makes on a commission basis. Ian belongs to two turning clubs in Hampshire and has demonstrated to members on a number of occasions. He has a dedicated workshop and enjoys new projects and challenges.

penultimate@uwclub.net







#### The blanks

The first step is to prepare the blanks. I would suggest being a little more generous in length for the central column than is necessary, as this allows you a safety net just in case a mistake is made. What I haven't shown here is a piece of scrap bubinga – this will be turned into a rod that goes through the central column to support the carriers

"The first step is to prepare the blanks"





# 3









#### The base

The blank for the base measures 115mm diameter × 38mm thick. You need to mark the centre and then mount between centres. Use a steb centre held in your chuck and a revolving tailstock centre with the point removed; this will allow you to hold the blank securely while you true up the diameter and form a spigot for chuck mounting

The next step is to reverse the blank and mount it in the chuck so the underneath can be turned. For a base of this diameter, a recess to suit my chuck jaws of 45mm diameter is my preferred option and you can see I have slightly decorated it by the addition of inscribed rings. These are formed with the point of a skew chisel. When the final base diameter of 106mm is achieved, sand to 400 grit and then apply sanding sealer. You can finish the base with your preferred wax or leave it until all components are finished and then buff

And make sure it is secure. Follow the measurements from the design drawing and turn the shape, making sure that the top diameter is as accurate as you can get it as this area butts onto the first stage of the central column. This photo shows most of the turning finished and a 10mm hole being drilled to a depth of 12mm. Before drilling, I always form a slight indentation with the point of a skew chisel so that the drill bit can engage and start to drill the hole without wandering across the surface on initial contact. You can also see two decorative rings that have been formed with the point of a skew chisel

5 Here you can see the finished base after the sanding and sealing stages have been completed. Two additional rings have been formed just around the drilled hole and I use this method to allow the glue to adhere firmly to the first section of the centre column. It also helps to prevent any excess glue from seeping out from the joint when the two sections are pressed firmly together

This is turned in three sections and the first section butts onto the base. Cut the blank a minimum of 100mm long by 32mm square. Mark centre points on each end and mount between centres. Turn to round and form a spigot to suit your chuck. Mount in the chuck and using a 6mm drill bit mounted in a Jacobs chuck, drill a hole about 12mm deep

Now turn the shape of this section and sand and seal. Note the tailstock live centre is supporting this section in the previously drilled hole. A tenon – 10mm diameter – is formed at the headstock end to fit the hole drilled in the base section



The next section requires more accuracy in oreparation because it is square in section and the drilled centre hole must be spot on. Cut the blank to just a fraction over 25mm square and 75mm long. Using either a belt or disc sander, sand all four surfaces and check for accuracy with a set square. Finish sanding to 25mm square. This is most important because the side carriers will butt onto this area and any deviation from square will become apparent when the project is assembled. Accurately mark the end centres, then mark the centre of one surface and use a punch to mark this. Draw cross lines at 22mm on either side of this point. Mount between centres and, using either a skew chisel or a fingernail spindle gauge, turn a pommel from both cross lines of the blank and then form spigots to 6mm diameter at both ends. Keep taking this section off the lathe and fitting it to the first section of the column, always checking for a good fit. Although I haven't shown this stage in a photo, you can clearly see the result in step 9, which progresses onto the next drilling stage

This shows the second stage having the hole drilled through the side with a 10mm bit attached in a Jacobs chuck. I take the point out of my live centre so the drill bit goes all the way through without snagging the live centre. If you haven't got a live centre with this capability, then do the drilling on a pillar drill. To prevent the piece from spinning while being drilled, bring up the toolrest so that the outer dowels or the body, rest against the toolrest while being drilled. Sand the pommels and then sand the square sides gently by hand with 320 and 400 grit. Check that all sides are as square as you can get them

### "The top finial of the centre column is a straightforward piece of turning"

The top finial of the centre column is a straightforward piece of turning. The blank measuring 75mm long by 25mm square is mounted between centres and turned to round with a spigot for your four-jaw chuck. Next, hold the blank in the chuck and drill a 6mm hole about 8mm into the end

11 Reverse the blank and, holding by the turned spigot, proceed to turn this final section to shape

12 Sand and seal before parting off. This photo may be a little misleading because it gives the impression that a spigot has been formed at the base end. Don't forget that a hole was drilled into the base and therefore this 'spigot' is hollow, so part off at the base of the finial and this will reveal the 6mm drilled hole





















#### The side carriers

13 Two of these are required, so take the first blank – 100mm diameter by 45mm thick – and mount between centres as you did for the base. Turn to round and then form a spigot for mounting in your chuck. Photo 13 shows this complete and with the blank mounted in the chuck. This photo also shows the front face turned smooth with a bowl gauge and a ring marked where the recess is to be formed for the insert

This ring needs to be a tad undersized for the time being. Take out the wood from this area to a little more than the appropriate depth needed for the insert. Now start to refine the recess diameter to fit the insert. I do this with the point of a skew chisel laid flat on its side and make it a loose but not sloppy fit so that any wood movement will not bind onto the insert. The inserts I used from Klockit required a slightly wider recess at the top so that the lugs fitted comfortably. Then turn the rest of the face as per the drawing

15 It is now time to turn the top outside diameter detail. I also turned a bead at the back of the blank leaving a flat area between the beads but decided on a slight design change. It is important that this flat area is not yet turned to final diameter, as I'll go on to explain shortly. Exactly halfway between these beads – 30mm apart – draw a ring round the circumference. This can be seen here together with a punch hole. Using your lathe's indexing facility, make a similar punch mark exactly halfway round. I prefer these marks to be positioned on the end grain so that when the hole is drilled the grain runs across the face of the carrier and not vertically

Now you need to drill a 10mm hole in the side. Insert a 10mm drill bit held in a Jacobs chuck into the headstock Morse taper, or hold it in your chuck. Locate the point of the drill bit in the punch hole that needs drilling. The live centre is now located in the opposing punch hole. Turn on the lathe at a slow speed and by advancing the tailstock and holding the workpiece still, the hole can be drilled through the wall of the carrier. This will ensure that the hole is drilled dead centre

17 The blank now needs to be reversed by jam chucking. When secure and running true, the outside flat area needs to be taken to its final diameter. I manage this process with a skew chisel flat on its side in the trailing position. With the flat surface of the skew on the blank, gradually remove wood to the desired diameter. This is a shear scraping process and also gets rid of the remaining punch hole from the drilling operation. Make sure that the diameter is exactly the same at both ends of the flat area



 $\triangleleft$ 





Here you can see the completed back of the carrier. The raised back bead that I removed has now been converted into a bead that is inset into the corner. To me, this looks much better. The back can be turned to your own design or follow mine. Now for the easy part; turn the second carrier to match the first. Take your time, measure carefully and you won't have a problem

19 Now for a simple bit of spindle turning by forming the rod that goes through the hole in the centre section of the column. The two carriers are glued to this in the final assembly. Mount, between centres, a length of scrap bubinga about 12mm square and 100 or 125mm long and turn to round. Turn it a little thicker than 10mm. Now with the aid of 120 grit, sand it very gently, but be careful to not be too aggressive. Keep offering it up to the hole drilled in the column's centre section and stop when you have a tight fit. Cut off a section that will be just enough to fit through the column and extend into the depth of the carrier's wall thickness. This will be a total length of about 50mm

All the turning has now been completed and all the parts are shown here. You are ready for the final stage of applying the finish. For objects that aren't handled much I use a buffing wheel and apply carnauba wax and on bubinga the results are good; however, you must apply whatever finish you are familiar with

2 1 Before the final assembly with glue, try a dry fit to make sure that any slight corrections can be made if necessary. If it all looks OK, then start the final glue up stage working from the base up. Leave gluing the carriers until last, making sure that they are aligned perfectly

22 Your final piece should look something like this

23 ... and here you can also see the reverse view ●









#### **HANDY HINTS**

- 1. When gluing a project that has many elements, use a glue that doesn't set too quickly five minutes is a good time and white glues generally allow this. This gives time to make small alignment adjustments. CA adhesive does not allow this
- 2. When applying a finish to decorative items that are not handled often, I find that buffing wheels give the piece a much smoother and even finish
- **3.** When gluing, take care to ensure that the grain direction lines up



#### CREATIVE WELSH WOODTURNING LTD.



Turners Tool Box.Com WOODTURNING - WOODWORKING - WOODCARVING **TOOLS & ACCESSORIES** 

DAVID MARTIN LOG ON TO:



For more information Visit: www.turnerstoolbox.com Order online Open 24hrs - All at the click of a button and delivered straight to your door Email: info@turnerstoolbox.com - Tel: 01873 831 589 - Mobile: 07931 405 131





DELIVERED WORLD WIDE





#### **NEW TO THE UK**

Hapfo Performer 400-FU



#### www.toolsandtimber.co.uk



#### **G&S SPECIALIST TIMBER**

The Alpaca Centre, Snuff Mill Lane, Stainton, Penrith, Cumbria CA110ES. Tel: 01768 891445. Fax: 01768 891443. email: info@toolsandtimber.co.uk

#### WOODTURNING **BINDERS**

**Create your magazine collection!** 



ORDER ONLINE: www.thegmcgroup.com CALL: +44 (0) 1273 488005

**SEND FORM TO:** 

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

	UK £	Europe £	Rest of World £
Binder (each)	£8.99	£8.99	£7.49 (excl. VAT)
P&P for first binder	£2.95	£3.95	£4.95
P&P for any additional binders	£1.95	£1.95	£4.95

I would like to order	binder(s) for Woodturning

I would like to	order binder(s) for <b>Woodturning</b>		
Mr/Mrs/Miss/Oth	nerName		
Surname			
Address			
	Postcode		
Country	Tel		
E-mail			
_	neque (made payable to GMC Publications Ltd.) my credit/debit card (please indicate)  TO THE VALUE OF		
Card Number			
Expiry Date	Security The last 3 or 4 digits on the signature strip		
Card Type VISA	AMES ZAN GOSHLESS Most Corn Most stro		

illd of Master Carlsman Publications Ltd. will ensure that you are kept up to date on other products which will be of interest to you.

Offer ends 31/12/205 

If the second of future offers, please tick this box



www.gpsagencies.co.uk

Please contact us for your nearest stockist email: gpsagencies@btconnect.com



Unit 5, Parkers Trade Park, Bedford Road Petersfield, Hampshire GU32 3QN Tel: 01730 233366

### John Davis Woodturning Centre

A working woodturning centre run by Woodturners for Woodturners not just a shop

- Order on-line via the website, by phone or email
- Gift vouchers available for the woodturner that has (nearly) everything



Shop Open: Mon - Sat 10am - 5pm, Sun 10am - 2pm

The Old Stables, Chilbolton Down Farm, Stockbridge, Hampshire SO20 6BU

Tel: 01264 811070

email: admin@johndaviswoodturning.com

#### **WOODWORKING INNOVATIONS FOR OVER 80 YEARS**





ACCURIGHT®
CENTER MASTER
Blank Creation System



FACE-OFF™ Nodular Faceplate System



STRONGBORE™ Modular Boring System



ACCURIGHT®
Circle Cutting Jig



ACCURIGHT® BAND ™SAW LOG MILL







Germany/Europe







www.gustavsenas.no/



Band Saw Accessories
Lathe Accessories
Band Saw Guides



Band Saw Blades
Band Saw Tires
and More!

Innovative Solutions for all your Woodworking Needs

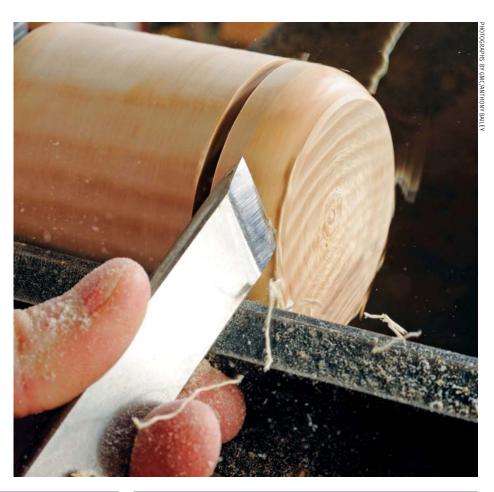
### Starting turning — part 11

This month, Mark Baker looks at using parting tools, beading & parting tools and skew chisels

arting tools, beading & parting tools and skew chisels are similar tools in that their standard forms have a cutting edge that is an intersection meeting point between two bevels. They are collectively known as the chisel group. Parting tools commonly have a square end cutting edge flat across the width of the blade, although some do have a skew to the angle. The skew chisel, as you might have guessed already, commonly has a skewed cutting edge - the angle of the skewed edge varies considerably. Some people prefer a radiused cutting edge profile on the skew. Less common, although not unheard of, are ones which are square across. Skews are generally wider in the body than they are deep in the blade and are the planes of the turner's tool kit.

Many turners get on well with the parting tool, but when a conversation comes up about the skew, people will regale others with horror stories, tales of woe and negativity. This is sad as no doubt many people are put off by such tales before they even try using the tool. As with any tools, knowing how to get the chisel family to cut well and practising the cuts at the lathe is fundamental to getting the best turning experience.

Hopefully, this step-by-step guide will help you in your objectives.



#### **PARTING AND BEADING & PARTING TOOLS**

The parting tool and the beading & parting tool differ in shape and width but are essentially similar and unless you are using fluted versions, the method for using thick or thin blade standard versions is the same for both. The cutting edge is formed in the same way, but the difference lies in the width of the cutting edge: the wider it is, the more edge you can cut with. It is also worth noting that the thicker or deeper the blade, the more rigid it is and is therefore less prone to vibration when making deeper cuts.

These tools can be used to cut square-grooves, to part – cut off

- the work from the waste section, tenons for chucking and to cut beads, fillets, quirks, etc. They have their uses in both spindle and bowl work, but the rolling of beads with these tools is usually done on spindle work only.



#### **SKEW CHISELS**

This skew chisel is the woodturner's plane. It is an essential part of the spindle turner's armoury for



between-centre work – where the grain runs parallel to the bed bars. It is not used on faceplate work, although some use it for shaping an internal dovetail when used flat in scraping mode. This might be deemed to be forbidden by some but it does work; the downside is that the cutting edge is destroyed in seconds. The tool is typically used on spindle grain work to smooth the surface of the wood, incise 'V' cuts, clean up end grain, roll beads and create long gentle curves.

The left-hand skew is a standard grind and the one on the right is a radiused-edge version. Note the three highlighted areas. In marker pen on the left there are two black marked areas. The lower black mark on the left shows the point and is called the heel or short point. The other point is called the toe or long point. The area marked in blue on the right-hand tool shows the transition between the main body of the blade and the bevel – the heel of the bevel. All of the cuts shown can be made with the standard grind or the radiused-edge chisel.

#### ■ Parting cuts, fillets and tenons – using a parting or beading & parting tool



A parting cut can be made all the way through or stopped to create what is known as a fillet

The cleanest cut is achieved with the bevel rubbing. Ensure that the toolrest is set just below centre. The handle should be kept low and as close to the body as possible. The cutting edge of the tool will be just above centre. Position the cutting edge horizontally to the work, support the blade on the toolrest and use either the overhand or underhand grip. Apply enough downward pressure on the tool to keep the blade in contact with the rest while allowing you to move the tool as necessary. Advance the tool towards the work so the heel comes into contact with the rotating wood. You will hear a ticking noise. Keep the tool on the rest, press the heel lightly onto the wood and then raise the handle until the cutting edge comes into contact with the wood.

Next, raise the handle and arc the tool into the wood, maintaining bevel contact all the time. Stop at the depth you require. If you are making a very deep cut, you may experience binding on the blade. If this occurs, make a small clearance cut to



This sequence shows the tool being arced into the wood, so the bevel is rubbing all the way through for the cleanest cut possible

one side; this will allow the blade to travel unimpeded during the cut. If you need to part off the work when turning between centres, it is best to leave a small nib of wood and saw it off later.

A side view clearly shows the arcing path of the cut. Present the tool heel first and raise the handle to get the bevel rubbing. When the bevel is rubbing, raise the handle a little more to make the cut. Arc the blade into the wood, moving the blade forward all the time, until you reach the required depth.

Parting tools and beading & parting tools can also be used to cut tenons – these are also called spigots and fillets. This technique employs the same cutting action as the

parting cut, but only to a limited depth. The tenon or fillet does not have to be parallel to the spindle; the blade can be moved to cut at any angle required. This is useful for creating dovetail tenons, for holding in chucks, etc.

Tenons or spigots are created by making a parting cut that stops short of going all the way through the depth of the work. Position the rest just below centre, place the heel in contact with the work and raise the handle to achieve a bevel-rubbing position. Raise the handle to get a cut and arc the blade into the wood to the required depth. Tilt the blade onto its corner and arc into the wood again to create the required angle on the dovetail cut. Cut to the required depth.

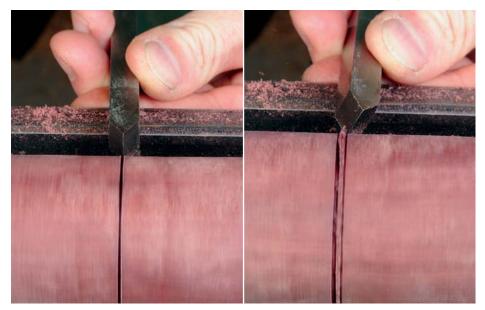
#### Scraping cut or push cut



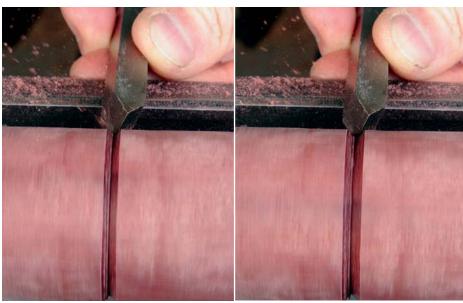
A plunge cut without the bevel rubbing works well but the surface is not as clean as with the bevel rubbing

Sometimes called a plunge cut, a scraping cut or push cut is similar to a parting cut; it is made with the handle low but without the bevel rubbing. The angle at which the cutting edge is presented to the work means that at no time during the cut do we achieve the bevel-rubbing effect we have seen previously. The scraping cut is cruder than the bevel-rubbing cut, but some turners find it easier to make certain cuts this way. The entry into the wood and the surface finish are often not as good with this type of cut, but it is a technique worth knowing and it can also be used on faceplate work.

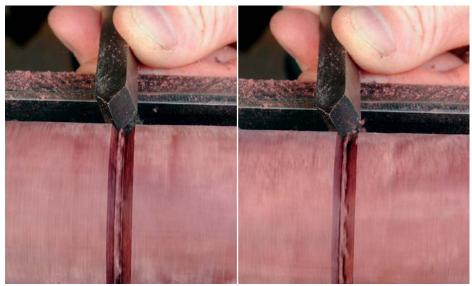
#### Cutting 'V' cuts with the beading & parting tool



The blade starts at the vertical position, then it is angled to work from either side



Arc the blade into the wood for the finest cut



As with all the cuts shown, only the lower cutting tip is making contact with the wood

The wider section of the beading & parting tool gives you a bit more cutting edge to work with. To make a 'V' cut, position the rest just below centre height. Keep the handle low and the blade on the rest, pointing square on to the work, with the cutting edge vertical – that is, turned through 90° from the position used for the parting cut.

Note that with the tool in this position there is no heel to rub. The handle should be kept low and as close to the body as possible so that the cutting edge of the tool is above centre. When you are ready, advance the tool at about 45° to the work, make contact with the leading tip of the cutting edge and raise the handle to arc into the cut. This incises a line by severing fibres and pushing the fibres to either side of the cutting edge as it goes in.

If the 'V' doesn't need to be very deep, you may not need to make additional cuts, but if you need to widen and deepen the cut, you can create the angled sides by positioning the blade so you cut in line with the bevel at the correct angle. The cutting edge remains vertical and the leading tip of the cutting edge enters the wood, with the lower part of the bevel acting as the bevel rubbing 'heel'. This is marked in blue in the photo, but of course, you are using the opposite side for this side of the 'V' cut.

Only the tip section should cut and you may need to angle the blade a little towards the chamfer you are cutting. About 5° is sufficient – any more and the cut will be made further back on the cutting edge; this results in an aggressive cut that is difficult to control, and if you lose control, the edge rolls into the chamfer, creating a spiral spinout. So, enter the cutting tip in line with the bevel angle and keep the cuts light and the cut on the tip section only. Make multiple light cuts, working back from either side of the incised cut until you reach the width and depth required. Only cut downhill.

Practise these cuts over and over again until you are comfortable with the cutting positions and the movement during the cut. Note the clearance of the main part of the cutting edge – only the tip section is used to make the cut.

#### **TOP TIPS**

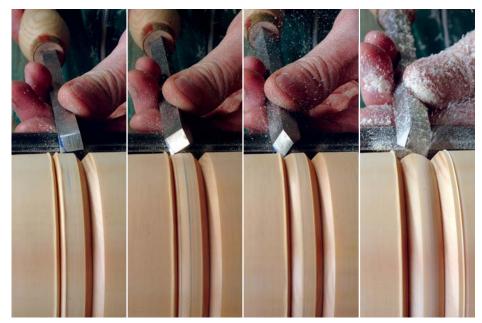
1. Don't force the tool. Instead, arc into the wood when possible as this will produce the cleanest cut. When cutting 'V' grooves or beads, keep the main part of the cutting edge away from the wood. Only the short or long point is in contact with the wood at any one time, which means you can control the cut easily



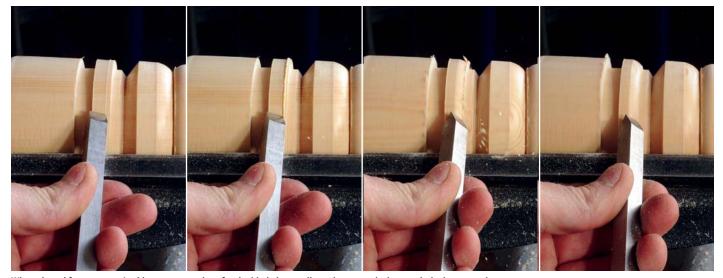
#### Cutting beads

You can also roll beads using the tip of the cutting edge. To practise this cut, make a parting or 'V' cut on either side of what will be a bead, to create clearance for the tool, and if you want to, mark the centre of the bead form with a pencil.

Place the beading & parting tool on the toolrest so the corner of the cutting edge is about 6mm from the edge of what will be the bead. Keep the handle low, touch the wood with the heel of the bevel, raise the handle and rotate the tool so the corner slices the wood. Roll the tool so that the cutting edge arcs over the wood, with the very tip of the cutting edge severing the fibres of the wood until the cutting edge is in a position to finish the shape, this position can be almost vertical. Repeat this process until you have shaped one side of the bead using successive light cuts, then shape and refine the other side of the bead, rolling the blade the other way. Remember, do not make too big a cut. Many light cuts are better than one heavy cut.



Starting with bevel support raise the handle until just the leading point of the cutting edge comes into contact with the wood, and using multiple cuts, gently roll the blade to form the bead



When viewed from a turner's side you can see how far the blade has to tilt to almost vertical to reach the lower section



Viewed from the side you can clearly see how it is only the leading tip of the cutting edge that is making the cut

#### Planing cuts with a skew chisel

Let's start by looking at the planing cut with the short point down nearest the toolrest. You can use the skew chisel with either the long or short point down nearest the rest, but the planing cut is most commonly used with the short point/heel pointing downwards. As with the spindle roughing gouge, do not cut into the end of the work; instead, start part of the way along it. I find it easier if the rest is placed above the centreline. This means that when the blade is supported on the rest and presented to the work, the handle is closer to a horizontal position than some of the tools we have used so far. This enables you to support the handle closer in line with the arm and against the side of your body rather than down toward the hip. The heel of the bevel is allowed to touch the wood and the skew is angled so that when the handle is raised, the cut occurs in the lower half of the blade, so you have support from and are as close in line with the part of the blade in touch with the rest.

Position the skew edge at about 45° to the surface of the wood. If you do not cut using the lower half of the blade, then the cutting edge is not properly supported by the section of the blade that is in contact with the rest and the force of the cut may twist the blade a little - you may lose control of the cut and get a catch.

So, present the tool and raise the handle to make the bevel rub. Use the lower section of the cutting edge, just a little up from the heel, to make the cut. Move the blade across the work, maintaining the bevel-rub cut as you go. The cut occurs in the marked area, as evidenced by the dust line.

By moving the handle position you can alter the presentation angle a little as you go, to create a more aggressive or more refined cut. The squarer the handle to the work, the coarser the cut; conversely, the closer the handle is to a horizontal position, the finer the cut will be. Repeat the process, making as many light cuts as you need to ensure the surface is smooth. Run off the end of the work to make sure the surface is even and clean. When one section of the spindle is clean, move the rest to a new section and repeat the process. If it is only the opposite end that you need to clean up, then reverse the blade and cut that section, running the blade off the end of the work if possible, to ensure an even shape.

The planing cut can also be achieved with the toe down. Hold the handle at about 45° so the cutting edge is positioned at approximately 45° to the work; again, the cut occurs in the lower half of the cutting edge. To achieve a finer cut, move the handle closer to the horizontal. A coarser cut is achieved by moving the handle to near the 25° position.



The body support is vital for full control



Get the heel rubbing



Raise the handle until the cutting edge is on contact



Only cut on the lower half of the blade for full cutting edge support



Different cutting angles create varying degrees of finesse on the surface



#### ■ Cleaning up end grain with a skew chisel

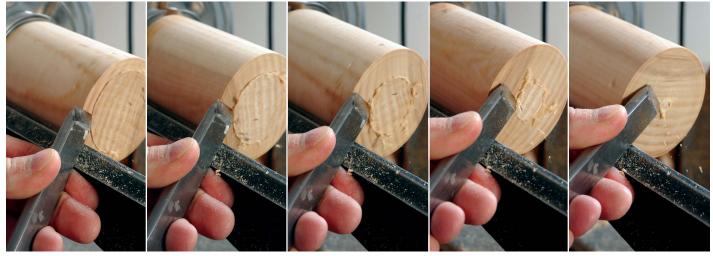


Cut with the tip only and enter in line with the bevel

The skew chisel can be used to clean up the end grain. For this task the tool is used longpoint down, the rest is set on or just below the centreline and the handle is held low towards the hip. Arc the edge into the wood, raising the handle as you go. To cut the wood, enter in line with the bevel with the cutting edge vertical, so that only the tip section is used; any other entry position will result in an uncontrollable cut. This is a bevel-rubbing cut, but only the lower shoulder of the bevel

is in contact with the wood. You can see that only the very tip is cutting the wood; the rest of the cutting edge is held away from the wood.

Start approximately 1mm away from the end of the work. Keep the handle low, enter the wood in line with the bevel and keep the edge vertical; arc down towards the centre of the work as the cut progresses. Multiple light cuts, rather than one heavy cut, will give you more control and a cleaner cut.



Gently raise the handle as you cut, so you gradually arc into the wood and finish dead on centre

#### Making 'V' cuts with a skew chisel

Making a 'V' cut with the skew chisel is very similar to making a 'V' cut with the beading & parting tool. Keep the handle low, the blade on the rest, square on to the work and the cutting edge vertical – turned through 90° from the position used for planing. Note that there is no heel to rub with this cut; instead, when you are ready, advance the tool at about 45° to the work, make contact with the leading tip of the cutting edge and then raise the handle to arc into the cut. This incises a line by severing fibres,

pushing the fibres to either side of the cutting edge as it goes in.

As with the beading & parting tool, if the 'V' doesn't need to be deep, then you may not need to make further cuts. But if you need to widen and deepen the cut, create the angled sides by angling the blade so you cut in line with the bevel at the correct angle. Keep the blade vertical, with the long point down and cut into the wood. Only the tip section should cut; you may need to angle the blade in toward the chamfer by  $5^{\circ}$  or so,

any more and the cut will occur further back on the cutting edge. This will result in an aggressive cut that is difficult to control and the edge may roll into the chamfer, creating a spiral spinout. Keep the cuts light and the cut on the tip section only. Make multiple light cuts, working back from either side of the incised cut until you reach the width and depth required. Only cut downhill. Practise these cuts until you are comfortable with the cutting positions and movement.



With the cutting edge vertical incise the wood with the point only, then work from either side until the depth is achieved. Only use the point to keep the main edge clear

#### Cutting beads with a skew chisel



The rolling action of the cut is clearly seen as the tool is only cutting with the short point

Rolling beads with a skew chisel is similar to rolling beads with the beading & parting tool. The cut is usually made with the short point of the cutting edge down, but depending on the shape of the bead, with the long point down being used just to get at the very bottom of the cut 'V' section. With the long point down at this juncture you can clearly see the cutting edge. Roll beads using the very tips of each end of the cutting edge.

#### "Rolling beads with a skew chisel is similar to rolling beads with the beading & parting tool"

To practise this cut, make a parting or 'V' cut on either side of what will become a bead. to create clearance for the tool. Mark the centre of the bead form with a pencil. Set the rest at about centre height. Keep the handle low and place the skew on the toolrest with the corner of the cutting edge - about 6mm from the edge of what will be the bead. Touch the wood with the heel of the bevel, raise the handle to get a cut on the tip section and rotate the tool so the corner slices the wood as it arcs over, until you reach the corner of the 'V' cut. Make successive cuts, repeating this rolling motion and removing small amounts of wood each time, gradually forming one side of the bead. The cutting edge will end in an almost vertical position.

When you have shaped one side of the bead, repeat the process for the other side with the skew edge pointing the other way. Some people find cutting one direction easier than the other, but your confidence will increase with practice and the results are well worth the time and effort.

#### **TOP TIPS**

2. As with most things, it will take a little while to get used to making these cuts, but put in the time and you will make life so much easier for yourself and you will see your turning improve as a result
3. A good timber to start with is something like pine or sycamore. Both are easy to cut, relatively inexpensive and show a nice shiny surface when you achieve bevel rub. Remember, only gentle pressure is used, so glide across the surface only

Next time, we will be looking at spindle gouges





### Toni Porto in profile

We find out more about Spanish woodturner and sculptor **Toni Porto** 



ver since Toni Porto was a child he has been interested in the visual arts, working with wood and painting, so when he finished school he enrolled in the School of Arts and applied for Sculpture in Madrid. Three years into the course Toni met 'the great' sculptor José Luis Fernández. Upon their meeting, Toni began working in José's bronze foundry and worked under Fernández with wood and bronze for four years. During these working years, Toni was drawn to pure sculpture and turned away from the visual arts for a while, but finally he decided to open up his own workshop and move into working for himself.

#### Starting turning

"The process of building a sculpture is usually very slow and I was looking for a tool that allowed me to work and research more

rapidly," Toni tells us. When searching for such a tool, he soon came across a woodturning magazine in a shop that specialised in woodworking tools, in Madrid. Toni read the magazine and was hooked, quickly buying a lathe that, unfortunately, only lasted a month. Toni needed one of greater size and power, so bought a bigger lathe and hasn't stopped turning since. Toni tells us: "It's become one of the most important tools for me."

Toni tells us that he still predominantly produces sculptures, saying: "Normally, I need to combine several techniques in one piece." Toni feels that his woodturning style varies a lot. Together with his brother, who is also a turner, they have created a woodturning design/make.

#### Inspiration

Toni's work is generally inspired by nature,

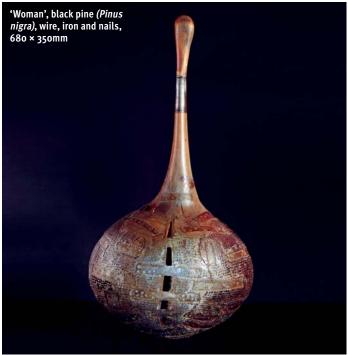
but also by any idea or feeling which the turner needs to talk about. "Anything can be a source of inspiration to me, depending on the moment and the attention I put into it," he explains.

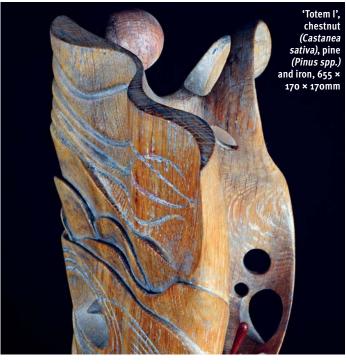
When looking at differences in sculpture and turning, Toni believes that in sculpture there are no limitations of shape, so now he faces the great challenge of always starting with circularity. The speed in which this turner now works, in comparison to sculpture, has changed immensely in that he can now see shape almost immediately, able to achieve his desired shape much faster.

#### Influences

Toni describes his style as 'contemporary art' and is strongly influenced by African art and any culture's tribal animist art. His style is also influenced by the art tendencies of the







20th century. As he goes on to explain: "As far as people in woodturning are concerned, Fernando Verez," he tells us, of who influences him. Verez, who recently passed away, had the strongest influence in the way Toni works with a lathe. Toni goes on to say: "I learned virtually everything I know from him!" Toni also mentions Miguel Lopez and Javier Palacios, who both contributed to his training, as well as Phil Irons and Nick Agar.

#### Workshop

Toni owns a large workshop, which he has built up to be very well equipped over the years. In his workshop in Madrid, he has all kinds of tools for traditional sculpting and four lathes – one Oneway 2436 and three Vicmarc 100, 120 and 300 lathes. But, in Galicia, in the north of Spain where Toni's family comes from, he has a VB. Sharpening

systems are also very important to Toni, so he has several of them too. "I spend a lot of time in my workshop, so I try to keep it comfortable, tidy and clean," he explains.

In terms of his work ethos, Toni has this to say: "Every piece is unique and deserves the same effort as any other, or even more. I try to get rid of every influence and produce pieces with my own style." Toni also tries to teach everything he knows.

When working, Toni uses many different techniques and each one requires a specific tool, therefore he could not choose a tool to live without. "I like to use them all, so the list would be endless. As my master used to say 'your most important tool never comes in touch with the piece' as well as 'Every tool has its role'," Toni tells us.

The time he spends on a piece can vary greatly depending on its difficulty, taking

from one week, to possibly a month, but Toni always works on multiple pieces at a time.

#### A working day

A typical working day for this turner begins at around 7.30/8am. During the first part of the day, Toni and his brother take care of the designer pieces on order. When they are done, Toni goes back to working on his sculptures. On Tuesday and Thursday mornings Toni teaches woodturning in one-to-one sessions, where he pays the utmost importance to teaching how to cut wood properly. On these days he then goes back to devoting his afternoons to his sculptures. The brothers close the workshop around 7pm and head home.

#### Highs and lows

We asked Toni of his 'highs' and 'lows' in



his career so far and the high for him is the satisfaction of being able to do what he loves and whatever he likes. Although, as a low, Toni would say that the world of sculpture is a very unstable one.

The best thing about woodturning for Toni is the openness of the turners: "The relationship among them is excellent. Everyone teaches you something." He also loves the state of concentration he slips into when working at the lathe – a similar feeling to meditation, he feels. The immediacy to finding a shape in volume.

At present, Toni promotes his work through art galleries, designers, through word of mouth and, once his website is up and running, soon to be online.

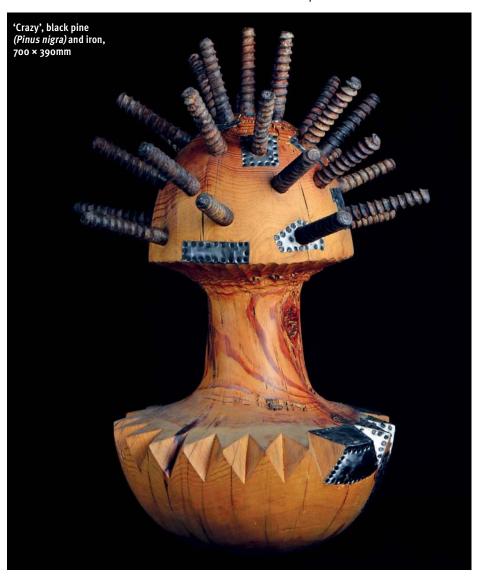
#### The future

In terms of what the future holds, Toni tells us that he hopes to keep on learning about whatever interests him and researching into shapes in art. His hopes are also that the number of woodturners in Spain will grow, saying: "The more, the merrier." •

Email: toniporto1964@hotmail.com

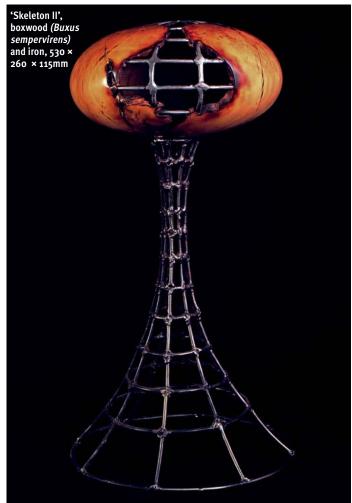


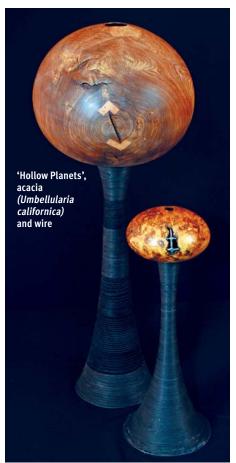
Toni's workshop



















**COLT**For the 'Serious Wood Worker'

#### Available from Planet

www.planetplusltd.com







COLT MAXI CUT FORSTNER CUTTER

M2-HSS STEEL - QUALITY PRODUCT • 69 SIZES AVAILABLE METRIC & IMPERIAL UNIQUE ROTA-STOP SHANK-PATENTED PRODUCT.

3 EXTENSIONS AND MORSE TAPER ADAPTERS AVAILABLE.

UK DISTRIBUTER FOR COLT DRILLS • SOLD THROUGH STOCKIST NETWORK



PLANET PLUS LTD - UNIT 3 SPEEDWELL CLOSE, CHANDLER'S FORD, EASTLEIGH, HAMPSHIRE SO53 4BT TEL: +44(0)23 8026 6444 FAX: +44(0)23 8026 6446 EMAIL: sales@planetplusltd.com

#### **Double Ended Bowl Gouges**

#### **Perfect with our Multi Handles**

For the woodturner who wants more for less -and who doesn't-

these superb bowl gouges from premium toolmaker Henry Taylor are the perfect answer. Offering two alternative grinding styles -one on each end. These Sheffield-made gouges offer maximum versatility when paired with a system handle such as our new Multi-Handles. Available in 1/4", 3/8" and 1/2" flutes from only £41.94 - talk with your favourite stockist.

Proudly Made in the UK



Standard **Profile** 



For the advanced turner we also offer these tools featuring the special grinds developed by renowned Irish woodturner Glenn Lucas, and which also feature in our signature bowl gouge range.



**Hamlet Craft Tools** www.hamletcrafttools.com sales@hamletcrafttools.com +44(0)114 232 1338

Available through **Henry Taylor** and **Hamlet Craft Tools** stockists worldwide



Henry Taylor (Tools) Limited www.henrytaylortools.co.uk sales@henrytaylortools.co.uk +44(0)114 234 0282



#### Getting An Edge needn't mean Getting On Edge!

It seems that some folk get somewhat anxious when it comes to sharpening their turning tools. They have seen experts and heard them extolling their ability to sharpen "freehand". Here's a thought: the horses in the circus learn to do tricks but that doesn't mean

you'd want to be related to an ass!

When it comes to sharpening, it needs

to be easy - quick - accurate - and repeatable. That way, there's nothing to fear and nothing to discourage you from sharpening as often as neccessary to keep your tools turning-sharp. Because without sharp tools, you can never be a sharp turner.

So let's make it easy: sharpen using a jig - and use the best jig available for use with bench grinders: the Oneway Wolverine. The basic system satisfies all basic woodturner's sharpening needs but accessories are also available to complement the system and to meet virtually any turning tool sharpening requirement - including really precise wheel dressing. Standard system with long arm and platform (above), including setup and operation DVD: £85.67. Varigrind jig accessory for Celtic profiles (right): £51.18.



#### There's Light at the End of the Tunnel!



Worklights are great - sometimes. If they are bright enough. If you can fasten them in the right place. If the beam can be directed where you need it. Yes, great: sometimes!

But here's a way of bringing light right where you need it. Made by one of Euope's leading manufacturers of optical and safety products, Bollé, these are more than just safety glasses. Two individually switchable super-bright led lights are mounted, one each side at the front of the sidearms, focussed to give a pool of light at the working distance.

These wrap-around glasses have anti-fog and

anti-scratch, impact resistant lenses with rubberised temple and bridge grips for comfort. No more struggling to mount the lamp, only to find that your body, or the tool, blocks the beam, these glasses get the light right where you want it. Bollé Galaxy safety glasses, batteries included, just £14.33

Take a tour around
The ToolPost



#### The ToolPost

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

sharing expertise



#### **NEW SERIES**

Problem solving in the workshop with Richard Findley

Mark Sanger explores Kurt Hertzog on the subject of turning cross grain lidded forms & pots

what you need to know about buffing your work

#### To subscribe call 01273 488 005 or visit www.thegmcgroup.com

Editor Mark Baker E: markb@thegmcgroup.com Deputy Editor Tegan Foley E: teganf@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 Controllers Clare Disano & Rebecca Braisby Tel: 01273 402807 E: repro@thegmcgroup.com Publisher Jonathan Grogan Production Manager Jim Bulley Circulation Tony Loveridge Tel: 01273 477374 E: tonyl@thegmcgroup.com Subscriptions Manager Helen Chrystie

T: 01273 402 873 E: helenc@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 Craftsman 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

61

#### Ironmongery Direct

MASTERS OF OUR TRADE



**UK's Biggest Range** 

**FREE Delivery** over £45

**Minimum 5 Year Guarantee** 

**♥ FREE Returns** 



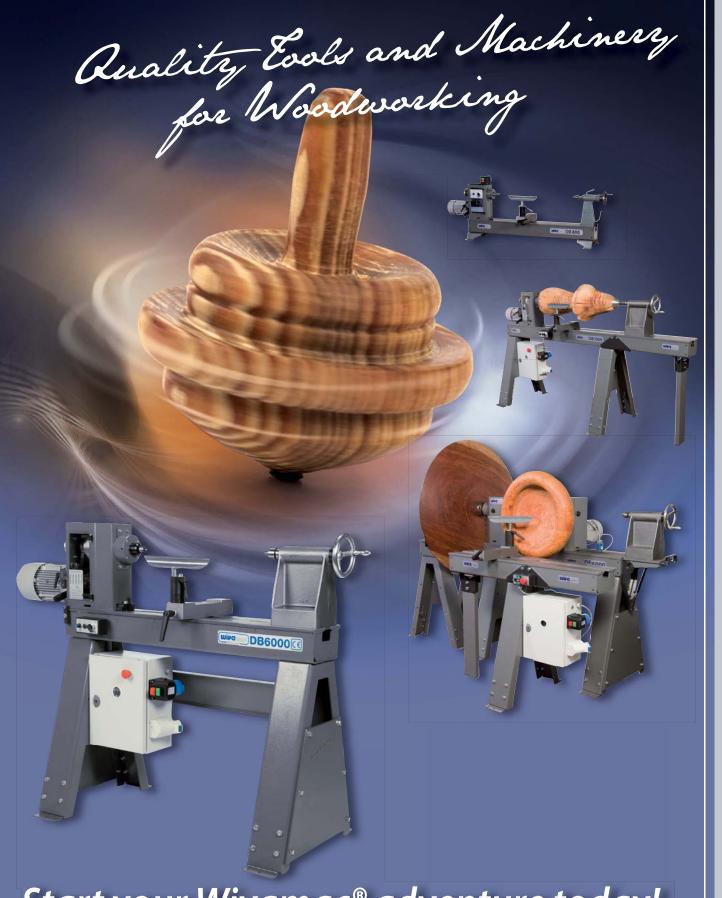












Start your Wivamac® adventure today!





Kurt Hertzog explains the basic techniques of casting resins



#### **KURT HERTZOG**



Kurt is a professional woodturner, demonstrator and teacher and writes for various woodturning and woodworking publications in the United States as well as writing for *Woodturning* 

magazine. He is on the Pen Makers' Guild Council and is currently president of the American Association of Woodturners (AAW).

kurt@kurthertzog.com www.kurthertzog.com

here are many castable resins in several family types. When I got started with casting many years ago, I researched the readily available, picked a castable resin from the polyester family and have stayed with it ever since. You may be using or have an interest in one of the various families. These include: epoxy, polyurethane, polystyrene, polyester, acrylic and more. I haven't had a need to experiment with them since my original choice has performed everything that I have need of from it. My purpose this month isn't to pick a resin for you or convince you to use mine. My intention is to offer the basics of casting and some of the techniques

I have found useful. I think you will as well. Whether you are an experienced caster already or have hopes of beginning that journey, I think you'll find some of the ideas presented here helpful.

#### **Resin basics**

With the myriad of castable resins available even within any of the families, you have a wide field to choose from. Castable resins are most commonly thermosetting resins that change from a liquid to a solid with the addition of a catalyst. You can cast them into a mould, with or without colouration, fillers, or other inserted material, to create a solid in the shape and colour you wish. This can be the finished product or a raw material for you to continue working with. As you make your selection of family and choice within that family, the things I'd suggest you learn from the spec sheets are: clarity, colour tint, shrinkage, curing time, special handling or processing requirements, safety issues, price and availability, PPE required, long term degradation, hardness and others. This may sound daunting but it really isn't. Nearly every resin supplier will have a chart allowing you to compare these characteristics between the different

resins they source. My suggestion is you select a resin that is as clear as you can get once it cures avoiding those that yellow or go somewhat opaque. That allows you the luxury of having it clear or any colour you may wish to tint it. The curing time is up to you but I favour a longer curing time since that gives me more working time. This is helpful if I am embedding things or need to process the casting with vacuum. The extra time lets me work carefully and have the time to get everything done that I need to with the material. It also leaves some time to remove air bubbles if needed. More on entrained air bubbles later. I recommend that you avoid resins that have special processing needs, require exotic PPE or will degrade over time. That degradation can be physical properties or colouration. Most will be looking for something that you can cast safely that finishes clear and stays there for the foreseeable future. Every vendor you deal with, including the castable resins found in the craft shops, will have a MSDS available that will at least deal with the safety issues. Good vendors will have a sheet that will speak to all of the other properties. If they don't have both readily available, I suggest you move on and find another source for resin materials.



Castable resins will not only let you create plastics of your chosen colour but will also let you embed nearly anything

# REGIN MIXING INSTRUCTIONS: TO A STATE OF THE CONTROL OF THE CONTR

Depending on your choice of resin, you should get clear use instructions and have an MSDS sheet available from your supplier

#### **KEY POINTS ON CASTABLE RESIN SELECTION**

- Different families offer different end results
- Prioritise your key needs and typical application when selecting
- **3.** There are many variations within each family
- Research will help narrow your final selection and testing
- 5. Patronise reputable suppliers

#### Safety

Castable resins are delivered as two separate chemicals. There will be the resin along with the appropriate catalyst for that resin. Both chemicals are items to be handled properly. As always, when handling chemicals you should wear protective gloves and eye protection, and ensure you have plenty of ventilation. There may be specific additional needs spelled out by your resin manufacturer or supplier. If your choice of resins requires you to wear special active filter masks, do so or select a resin that doesn't require it. Your Safe Use and Handling Instructions for that

chemical should detail all of these exactly. Do not ignore this information. It is important! Ignoring chemical safe handling procedures can cause serious health problems that may appear immediately or years down the road. Don't be afraid of casting resins but do follow the instructions for your own safety. Most resins exotherm when they are curing. Exotherm is a fancy word that means the curing process generates heat after you add a catalyst to the resin. Some materials generate a little and some generate a lot. Be aware of this and plan for it. The biggest caution I can share with you is to follow the mixing ratios as spelled

out by the manufacturers EXACTLY. When they indicate 'X' amount of drops of catalyst for 'Y' ounces of resin at a specific thickness of cast, they mean it. Putting in more catalyst doesn't speed the process! It only creates a situation where you've violated the proper and safe mixing ratios for no real gain. The process is a catalytic reaction. The catalyst begins the process and only needs to be present in the proper quantity to begin the catalytic reaction. Follow the instructions exactly. Trust me. The manufacturer's chemists probably know far more about this than you do.



Good practice is to always wear eye protection and appropriate gloves when dealing with any chemicals



I find that aluminium foil works very well as a work surface cover. When all is done, the entire accumulation of rubbish can be rolled up for disposal

#### **KEY POINTS ON SAFETY**

- Always wear gloves and eye protection when handling any chemicals
- 2. Plenty of ventilation is always wise for any chemical handling and processing
- 3. Be certain you read and understand the MSDS and Safe Use and Handling Instructions
- Dispose of processed and unprocessed chemicals in a safe and responsible manner
- **5.** Be aware of and plan for the heat generated by the process
- Avoid suppliers or materials that can't provide Safe Use and Handling Information or MSDS documentation

#### **CASTING RESIN SOURCES**

Because the polyester resins and catalysts that I use require special Hazmat shipping and the weight/distances would be cost prohibitive, I've identified my source in the US. I have received some good recommendations from my friend and fellow caster, Walter Hall, for trusted sources in the UK. There are also many others that you can purchase from, the sources listed here are just our current vendors. Neither of us has any affiliation or financial interest in any of these companies. They are provided only for your consideration.

#### In the UK

**East Coast Fibreglass Supplies** – www.ecfibreglasssupplies.co.uk **Easy Composites** – www.easycomposites.co.uk

In the US:

Douglas and Sturgess - www.artstuf.com



#### Casting basics

The process in a nutshell is to measure sufficient resin for the casting pour that you wish to make. The measurement is a weight in ounces. The manufacturer will have a chart of the amount of catalyst needed for that amount of resin based on the thickness of the casting pour. For the resin I use, thinner castings require more catalyst per ounce of resin than thicker castings do. I suspect this is because thinner castings don't keep the

While pens are shown here, don't lose sight of the fact that there isn't a size limit for your castings. Clear, coloured or filled with your choice, make whatever you wish to turn

heat in like thicker castings do. Because plastics are a thermal insulator, thicker castings create heat but are slower to conduct it to the surface where it is given off. This heat retention helps drive the process of curing. Thinner castings lose the heat generated more quickly so the additional catalyst is required. This is not licence to mess with the resin to catalyst ratios. The casting thickness will indicate the number of drops of catalyst per ounce of resin. Follow it for safe and good results. Good practice is to limit your



For embedded or overcast, you can use nearly anything provided you protect it if needed. This blank shows the plastic over the snakeskin

thickness of casting to the maximum limit indicated by the manufacturer. If you need thicker castings than the manufacturer recommends, perform multiple casts within the maximum cast limits to achieve your desired thickness. Simply process each cast pour to cure completion and then perform another right over the top. You can repeat the process as many times as needed. The melding of the materials at the casting interface has never been a visible or physical problem for me.

#### **KEY POINTS ON CASTING BASICS**

- Plan your casting pour to know measurement needs and catalyst ratio
- 2. Thinner castings require more catalyst per ounce of resin than thicker castings
- Be aware of and plan for the heat generation that the catalytic reaction will create
- 4. Have everything prepared prior to casting to avoid hurrying or problems
- Work in an area with ease of clean up and minimal concerns of spill damage
- Cover anything you wish to protect with disposable covers

#### Colouring

You can colour your resin with a variety of colours. Your resin vendor will usually offer an assortment of different dyeing agents that will work with your resin. These come in very small bottles and are dispensed by the drop. Since your colouration needs may be a tint or a completely solid, 100% opaque material, the number of drops per ounce varies considerably. Rather than ruin your project because the colouration isn't what you desire, mix and tint a small batch in a disposable cup keeping track of the ratio of drops of dye per ounce of resin. Once you've achieved the desired colouration, you can conduct your project mix and pour with the assurance your final casting will have the colouration you desire. If you decide to create coloured swirls with the various pearlescent materials available, you'll need to test how long to let your curing resin thicken before you add your pearlescent drops and then swirl. It is a superb eye-catching result when done well. The key is to practise in a test mode with small throw-away castings to capture the proper time delay to perform on your swirls.

"The key is to practise in a test mode with small throw-away castings..."





Most manufacturers will offer an assortment of dyes that will work with their product. If you stray to another, test a small sample colouring and cast before committing

#### **KEY POINTS ON COLOURING**

- Small amounts of dye can have a big impact on the final result. Test on samples
- **2.** Use the recommended dyes for the resin you are using
- Measure in drops per ounce of resin and keep a log if you wish to repeat
- **4.** When adding the dye colourants, avoid entraining air bubbles
- **5.** If using other colouring agents, test on small samples and keep a log
- Even though dyes are in a squeeze drop dispenser, wear protective gloves

#### Casting with fillers

It is rare that I cast a resin to be simply a coloured plastic. It is far easier to buy a block of densely coloured plastic in the size I need. I usually use my resin casting as a binder to hold filler materials in place and provide strength. The best analogy I can offer is that I am stabilising my filler. The cast plastic wicks into all of the nooks and crannies to make it solid and turnable. Over the years I've cast nearly everything I could think of in my resin pours. I started with rice and then progressed to dyeing the rice. Other materials include coffee grounds, coffee beans, crushed egg shells, leaves, seeds, wheat, tooth picks, pom pom swirls, bangles, jewellery and a host of other things. If you can get your filler into

a mould, you can cast around it. Having fillers presents the problem of getting all of the air out of the areas where the resin won't seep in. Another method that works well for me is to mix the fillers right in with the resin in my mixing cup. Much like stirring your cereal to coat it all with milk, this wetting of the filler surfaces helps when I pour it all into my mould. Additional resin can be added to fill in any gaps, with or without using a vacuum to remove any entrapped air. One of the popular uses of casting is to encase pictures, coins, emblems or other memorabilia for display. The clear plastic after curing will provide shape and protection for the item. If the casting is to have additional processing such as turning to shape and size, be aware that sanding and

buffing like other plastics will be required to get to optically clear again.

#### **KEY POINTS ON CASTING WITH FILLERS**

- **1.** Test chemical compatibility before committing heirlooms
- 2. Have moulds ready to accept casting materials to allow maximum settling time
- **3.** Pre-measure filler needs in actual mould prior to determine quantities needed
- 4. With submerged items, overcoat with protective material if needed
- If your filler floats in the resin, allow sufficient depth in your mould



What you use to fill your resin with is your choice. If the resin will bond to it and it cuts decently, pick anything. This filler is winter wheat seed



You can certainly wind up with something unique that can't be found in your local woodturning supplier



Mixing your filler to completely wet the surface will help create a good blank. Materials with a longer open time let any trapped air escape to the surface

#### Moulds

You can buy quite a variety of moulds for casting. Craft shops and online speciality shops will have specifically designed moulds. These are usually polyethylene so no release agents are required and for ease of casting extraction, they will have a slight draught angle on the sides. You can also press many other items into service for moulds. Many of the kitchen products from ice cube trays to frozen dessert treat makers will work nicely as moulds. They are usually plastic and are also equipped with a draught angle for release of their intended products. Depending on your desired end result, many have used plastic piping and other items from the home repair arena as moulds. I've tried many of these items and they all work well. There are also speciality moulds made by individuals to suit a specific need that are available directly from the individual via the message boards or eBay. The ones that come to mind are the moulds for pen makers who wish to cast directly around the brass tubes as opposed to creating a blank and then processing. These moulds will seal the ends of the tubes and are capable of casting

multiple pen tubes at a time. When making snakeskin, picture or other types of castings with your 'filler' wrapped around the tube, these moulds work superbly to position the tube, seal the ends and allow for easy release on cure. For the most part, I've used selfmade moulds from aluminium foil. I create the mould I need in the size I'd like by using heavy duty aluminium foil wrapped around a pattern of the size I'd like. By folding without any open seams and leaving the top open to remove the pattern, I can easily form any sized or shape mould I need. Low cost, easily made and disposable. I don't even remove the foil when done. I just drill, cut and turn right through it. Depending on the size and the shape, support is often needed along the sides of long sides. This is easily done by stacking the moulds together in a shoe box or the like. Another trick that helps provide quick moulds at nearly no cost is to line any dish, bowl, storage container or other item that will provide form with aluminium foil. Cast right into the foil and lift it right after cure. The original container will be unharmed and ready for its intended service or repeat use as a casting form. Items can range from kitchen dishes to food packaging containers

to shoe boxes. The amount of things that will work in this manner is almost limitless.



Moulds can range from the hobby store polyethylene moulds to kitchen products to homemade with wood, plastic or even aluminium foil





Of all of the moulds I've used, I find my own homemade moulds with aluminium foil are the most flexible, lowest cost and easiest to use



Regardless of the size or purpose, foil moulds using a pattern can be made. Folding heavy duty foil to avoid any seams will create a serviceable mould

#### **KEY POINTS ON MOULDS**

- **1.** Don't limit yourself to the shop-bought mould selection
- Moulds will work better if there is some side wall draught allowing for easy extraction
- **3.** Self-made moulds need to be without seams to prevent leakage
- 4. The weight of the resin will flex foil moulds unless supported on long dimensions
- For repeat work, create a pattern or container and use foil for economy and ease of use



If there are long side walls needing support, stacking moulds side by side in a shoe box or placing blocks to prevent flexing will work



Having your work area layed out including table coverings, moulds, resin and catalyst, PPE and scale will help prevent scurrying and unnecessary spilling

#### **Bubbles**

The nemesis casters face is bubbles in their castings. Because they stir in the catalyst, it is nearly impossible to not entrain some air bubbles into the resin. With the high viscosity, these bubbles are difficult to coax to the surface before the resin sets up. Over the years, there have been two methods of dealing with the problem. The method that I've used as needed is to put my casting mould into a vacuum chamber and pull some vacuum. My lathes are all equipped with a vacuum pump so it is quite easy to put the casting into a chamber and pull some vacuum before the resin becomes so thick the bubbles can't move. Before I owned the chambers for stabilisation, I made a vacuum chamber from thick wall PVC plumbing tubing. It has served me well for many years. I continue to use it as needed for the highly filled castings that present many nooks and crannies that will hold bubbles. Another tack that some casters take is to use a pressure pot to reduce the size of the bubbles by pressurising the casting as quickly as they can before it sets up. I am not a fan of filling an inexpensive metal container with shop air pressures to squish the bubbles smaller. My suggestion is



Rather than using pressure to minimise entrapped air, I'd rather use vacuum to draw the bubbles to the surface. Your chamber and vacuum source will work

rather than figure out creative ways to remove bubbles, don't put them in to begin with. What works quite nicely for me is to mix my chemicals in a polyethylene bag. The higher quality food freezer bags are polyethylene and are ideal for mixing the chemicals. I simply tear my freezer bag and a support cup on my inexpensive digital scale, then add the desired amount of resin. To this I add the appropriate amount of catalyst based on the

weight of the resin. I remove the bag from the support cup and knead the bag gently to mix the catalyst and resin. No stirring therefore no entrained bubbles. To dispense the resin, I simply snip the corner of the bag with a pair of scissors and pipette the catalysed resin into my mould. When completed, I put the freezer bag on top of my protective counter covering, usually aluminium foil, and allow it to cure. Once cured, it can be safely disposed of.



Better than removing entrained air bubbles, don't introduce them. A polyethylene bag will let you mix the two by kneading and then pipette it out

#### **KEY POINTS ON BUBBLES**

- **1.** Introducing bubbles through stirring presents time-consuming problems
- **2.** If stirring is necessary, fold the materials slowly
- Avoid introducing bubbles by using a polyethylene bag method to mix chemicals
- **4.** If using a highly filled resin, be prepared to remove entrapped air if needed
- Plan additional thickness of pour to allow for sufficient bubble-free material areas

#### Conclusions

Why would you use polyester resin or another castable resin of your choice? Why not? It will give you opportunities to create shapes that you might not be able to create otherwise. It will let you work with plastics in the colours and sizes you wish rather than what is on your merchant's shelves. You can embed heirlooms, whether service patches or historical photos, for posterity. Whether you cast for pen blanks, bottle stopper blanks, paperweights, encapsulating items in bowls, bottoms of hollow forms, or some other idea that you might have, casting is easy and fun. It is a way to enhance your turnings and create something a bit different than your fellow turners. What resin should you use? You pick what best suits your needs. Most of them will give you something that turns like plastic since most of them are and are capable of being cast or finished to optically clear. If you haven't tried it, I highly recommend that you do. I think it will open new horizons for you.



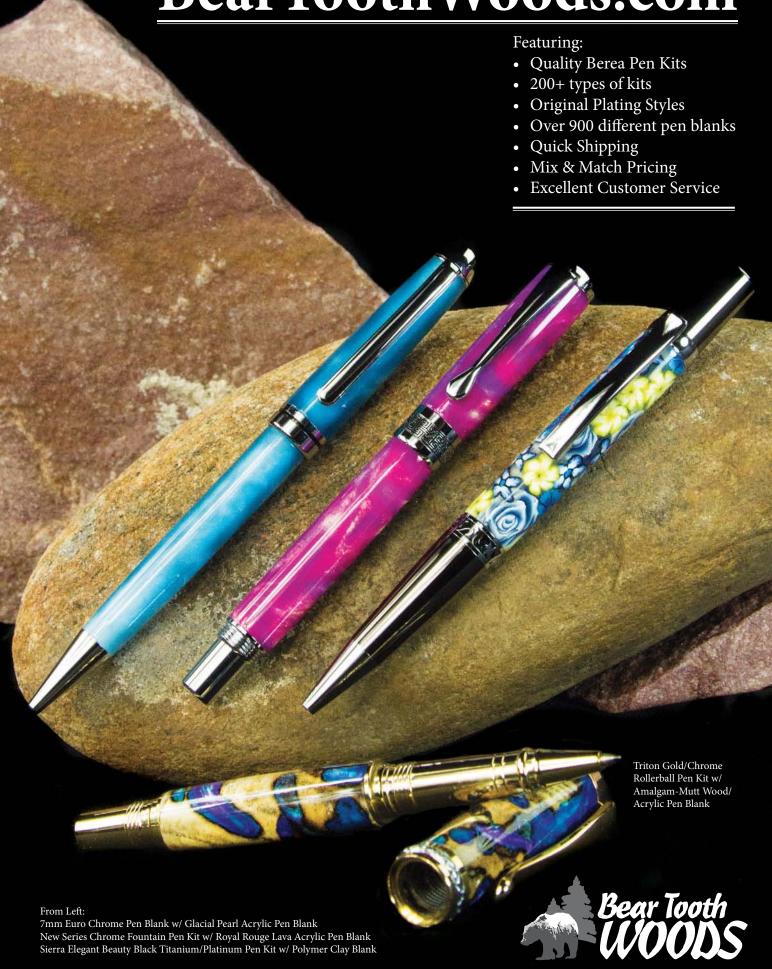
Whether casting blanks for pens or bottle stoppers, or just burying some snakeskin, casting resin can be a fun and enlightening experience





Easy is ordering from:





# Wild cherry

In the latest installment of his timber types series, **Dave Bates** looks at wild cherry





DAVE BATES



Dave started turning when he was about nine years old but didn't start taking it seriously until he saw three bark edge bowls by Bert Marsh in the early '80s. From a background in horticulture and then tree

felling, he took up arable farming in 1979, and in 1987 following the Great Storm, set out to acquire a few trees for his hobby. Dave, along with his wife Janet and their son Pete, runs Stiles & Bates.

sales@stilesandbates.co.uk www.stilesandbates.co.uk here are three main types of cherry (*Prunus avium*) that find their way into woodturners' workshops – ornamental, orchard and wild. Of these, wild cherry is the most commonly used so that's the one I will focus on in this article.

### **Ornamental cherry**

Surely every woodturner will at some stage have been given an ornamental cherry, often one that has died of the silver leaf fungus (Chondrostereum purpureum). We often have customers with just such a tree that has died in the garden and the plan is get us to mill it into planks so a piece of heirloom furniture can be made from the treasured tree. These trees are usually fast grown so the growth rings are wide spaced and the timber is soft and fluffy to work. No doubt the timber can vary according to variety, whether it has been grafted onto a particular rootstock variety for vigour - graft lines can be truly spectacular - and upon soil type and climate, but in the UK, you find that these trees rarely convert to good, stable timber.

### **Orchard cherry**

Orchard cherries, particularly from established commercial orchards are, like the old Bramley apple orchards, sadly becoming a feature of the past. The trees are short in the trunk, slow grown, prone to just about every form of internal decay, including brown rot, root rot, crown rot and bacterial canker. These old trees, however, will contain perfect hollows for nesting birds and might be hollow to the roots, and yet these gnarled old specimens will stand and yield fruit for years. Not as well as modern varieties, however, nor are they as easy to pick and maintain, so the old orchards have almost all been grubbed.

I tried buying the trunks of just such a 43-acre orchard a few years back with more due to be grubbed the following year, and although maybe only half of them would have been good, it was not viable for the grubbers to saw them from the roots, so the whole lot was pushed into mountainous fires, which took weeks to burn out. Maybe the EU grubbing grants had some influence, but after waiting 50 years or more for that reddish brown timber with dark streaks and maybe some stunning graft lines to mature, it seems criminal to my way of thinking, to just make smoke and ash of it.

### Wild cherry

And so wild cherry is almost always the only type commercially available to us. Fortunately, it is also the hardest and most reliable of the three for milling, furniture making and turning, and one of the nicest timbers to use.

The colour varies from greenish to pale brown or even reds with darker lines and





Cherry logs ready for the saw mill

streaks and the odd patch of ripple, especially around the buttresses and under main branches. In woodland stands, they grow slowly and straight so are ideal for milling.

Like all cherries, the older and larger trees are prone to internal decays, often what we call pipe rot, which run in small channels throughout the timber. They are liable to contain dead knots too, where small branches are shed and grown over as the trees mature.

Most forest grown wild cherries in the UK have a girth below 1.8m, although I have bought them up to 3m around, in particular, some that were windblown on a local farm and unusually round and perfect inside, but these are a great rarity.

### Milling wild cherry

Here's an interesting one: some years ago I was tramping the woods with the most knowledgeable forester I know and he led me to a pile of wild cherry logs he wanted to sell. As we removed a covering of brambles, the bark peeled away – cherry bark peels in horizontal rings, rather than vertical cracks as most trees do – to reveal part rotten sapwood. I asked how long they had been lying there. "Three years" came the reply, "five would be better." I raised an eyebrow in query and he told me that five years was perfect for his cabinetmaker customers, as it milled and dried more stable after that time and the sapwood is

hardly significant or useful anyway.

I bought the pile, milled the smallest one to 25mm planks and with some trepidation, stood a couple of them in our machine shop to observe them over a few months. Sure enough, despite not being sticked or weighted, they dried flat and true. The timber was a little lighter than when sawn fresh but the colour can be brought back with different finishing products. The other trees in the pile were just as stable and dry in just one summer.

Wild cherry timber is soft and easy to mill and surprisingly stable anyway – for a fruitwood – to air or kiln dry but the five year story is not one I had heard of before, nor since, but I no longer panic if we don't get all our cherry milled by the onset of summer.

### **Turning characteristics**

Wild cherry is a kind timber to turn, soft to cut, yet firm enough to take fine detail on faceplate or spindle work. It is an easy timber to hollow, too. On hollow forms where the grain is at right angles to the lathe bed bars – faceplate turning, so to speak – it cuts so easily that clearing the long shavings takes more time than the turning. Even where the end grain is being cut on spindle hollowing for the likes of boxes, eggcups, goblets, etc., it is easy to produce long shavings and a fine cut with ring-type tools and sharp scrapers. That said, I am wary of dark patches in a piece as they

can be more difficult to work. The patches can look really special and add some interest, but I have always believed they are areas where the timber is in the early stages of succumbing to one of the many rots that affect cherry.

### **Abrasives**

With modern abrasives, both hand and powered, almost all timber can be described as easy to sand. Cherry can therefore be described likewise but is more prone than most to end checking – a mosaic of fine cracks across the grain – if you sand with high pressure and gritted teeth. So allow the abrasive to do the work.

### Finishing

Most timbers turn brown with age. When the experts on *Antiques Roadshow* are enthusing about a fine piece of furniture and explain how the veneers or marquetry would have been reds and greens and yellows or whatever, the piece in question is usually just shades or patterns of brown. Just browns. Cherry is one of those woods that mellows quite quickly to honey brown and over just a few years becomes darker and darker. Oils will hasten this darkening but as with all finishes on a well finished piece, the timber will have an almost translucent depth, which stays with it over the years. •



Dish in wild cherry, 200mm dia.













### SAVETO 30% WHEN YOU SUBSCRIBE

**FREE 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!

### **3 EASY WAYS TO SUBSCRIBE**

Please quote order code A4665





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	Surname		
Address					
Postcode			Country		
Telephone			Email		
Subscription options (please tick the appropriate price)					
Pay by cheque/card	12 is	sues SAVE 10%	24 issues <b>SAVE 20</b> %		
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 28/02/2015 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	Originator's identification number 6 5 9 9 5 7			
Bank or Building Society account no.	Reference number (office use only)			
Bank or Building Society sort code	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			
Name and full postal address of your Bank or Building Society				
Name	electronically to my Bank/Building Society.  Banks and building societies may not accept direct debits for some types of accounts.			
Address				
Postcode	Signature Date			



# In the workshop with... Chris Fisher

We speak to Chris Fisher and find out about his woodturning career



hris's stunning pieces are created using airbrushing techniques and pyrography. He is a big fan of surface enhanced woodturning and makes a lot of freestanding pieces and wall hangings as well as platters and vases.

### How, why and when did you start turning?

2003 was when I first saw anyone turn a piece of wood. As soon as he turned the lathe on, I knew that was what I wanted to do. A few months later I bought a lathe and some cheap tools. I admit buying cheap tools was a big mistake! I am not going to mention how I sharpened the tools, suffice to say yet another mistake. All I know is I was desperate to turn.

### What and who have been the greatest influences in your work?

In my early days of turning Jimmy Clewes was a big influence on me. I loved his turning style, his humour and the way he explained everything. When I started using colour, it was Binh Pho and Joey Richardson for their technical ability. The work of Nick Agar is wonderful.

### If you were to offer one sage piece of advice to someone what would it be?

The best piece of advice I could offer is practice, practice, practice! I appreciate not everyone has the time to turn regularly, so when you do have time, put a bit of wood on

the lathe and just play – no pressure, just have fun. Oh yes, and always keep your tools sharp.

### What music and which book are you into?

I feel that turning with music in the background influences your mood. When roughing down a lump of wood, try a little Bon Jovi or Status Quo. When you reach the shaping stage, try some Michael Bublé and for finishing cuts, Nat King Cole. I'm a big fan of Lee Child books – Jack Reacher is my hero.

### What is your silliest mistake?

I'm not sure where to start with this one as I make so many. Mistakes might deflect you from your original idea, but they can also





# 'Evolution'; sycamore (Acer pseudoplatanus) bowl, 200 × 50mm. Pyrographed and enhanced with a crackle glaze

### **CHRIS' HOMEMADE JIG**

I make wall hangings and freestanding plaques and this jig holds them in place when I'm power sanding. The dowels hold the item firmly in place, then dowels in my workbench hold the jig in place. It is simple but effective. In terms of my favourite tool. I don't have one — I like them all!



and texture on the rim

take you in a different direction – perhaps
one you had not thought of if your mind is

open to it.

### What has been your greatest challenge?

Probably learning to airbrush. I have watched videos online that are helpful, but it would be easier to have someone show you. Still, making mistakes is a good way to learn. The most exciting thing is when you remove the masking and you can see what you have painted.

### Name one thing on your 'to do' list.

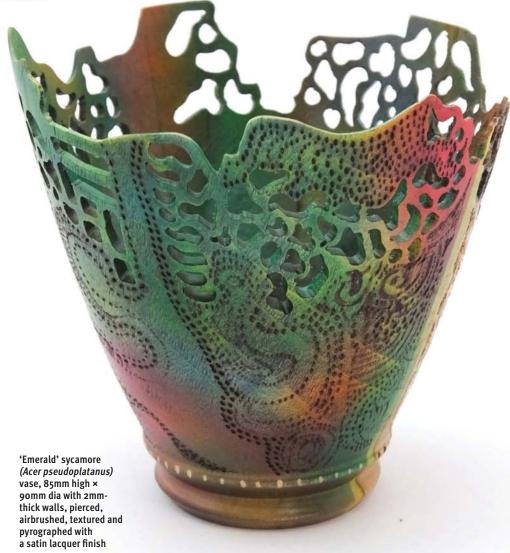
I don't have a 'to do' list as such, but I would like to be a lot better at woodturning. As for the future, I will carry on doing what I do now because I like the way I work: the spontaneity, the mistakes and frustrations, it's all part of the game of woodturning.

### Tell us about the piece you are currently working on.

At the moment I'm working on four different projects, which allows me to do another and then move back later if an idea occurs to me. I don't always know the direction a piece is going to take, so I just go with the flow. I'm not much of a planner.

### What is the one piece of equipment or tool you would not be without and why?

One thing I wouldn't want to be without is my pyrography machine. Pyrography is calming and a great stress buster; you can sit with your feet up and a cup of tea and just draw.





'When planets collide' oak (Quercus robur) burr multi-centre standing sculpture, 280  $\times$  165  $\times$  45mm

### If you could change one thing what would it be and why?

Generally I don't think I would change anything, except I would like to be able to type this quicker.

### What is your favourite type of turning?

It has to be wet or green turning – I love the unpredictability of the wood when it's dried. Turning wet wood thin is a joy; I would say around 90% of the wood I use is wet. Sometimes I microwave a thin turned piece if I want to be working on it straight away. Not all pieces crack; it depends on the type of wood, knots, uneven wall thickness, temperature of the microwave, etc.

### If you could have one wish, what would you wish for?

A greater appreciation of surface enhanced woodturning. It's a slow job getting this art form accepted here in the UK, but it is changing. If a piece of wood has really beautiful grain, colour or burr, you don't want to destroy what nature has created, but it may be possible to enhance it with a little transparent paint, should you want to.

### If you could have one piece of equipment what would it be and why?

A CBN wheel might be nice.

Email: c.fisher519@btinternet.com

### **HANDY HINTS**

- Always make sure your spigot or recess is cut correctly for your jaws; you don't want it spinning off the lathe and damaging your good looks
- Position yourself so you are comfortable when you are turning and try not to grip the tool too tightly
- Always wear a mask as the dust can be very harmful to your health
- 4. Keep your floor work area clear. If you should trip up and you have spinning wood on the lathe, you know what will happen... you could damage the wood. Oh, and youself of course

5. Enough of heath and safety. What is really important is that you enjoy and have fun with your turning. If you're not enjoying it, you won't be giving it your best shot

**6.** If your time is short, just do 15 minutes on the lathe – it pays off in the long run



 The monthly meetings at our club, Wolds Woodturners. The swapping of ideas, pointing out the defects, errors and sanding rings in each other's turnings and generally critiquing each other's work, which is all done in the best possible taste and good fun. It's a great club and a great bunch of members with some very talented turners

• I love the hands-on nights we have every month. It gives the members a chance to have a go on one of the lathes and sort out any turning problems they might have. I help out on one of the lathes and it's really gratifying to be able to help sort out a problem or advise on a technique and to find out the next month your advice has helped and the problem solved. When I started

turning we had nothing like this, so for £2 you get to go on a lathe, get advice plus tea and biscuits. Why not pay us a visit?

 I just like turning – no more to say

### **DISLIKES**

- Trying to keep the floor clear of shavings
- Sanding the inside of a deep hollow form – some marks are very difficult to remove and the finish should be as good as the outside. If you have turned the form thin, it will have moved; this makes the job even more difficult
- Turners who don't explain the 'hows' and 'whys' of doing things in a simple way to a novice turner

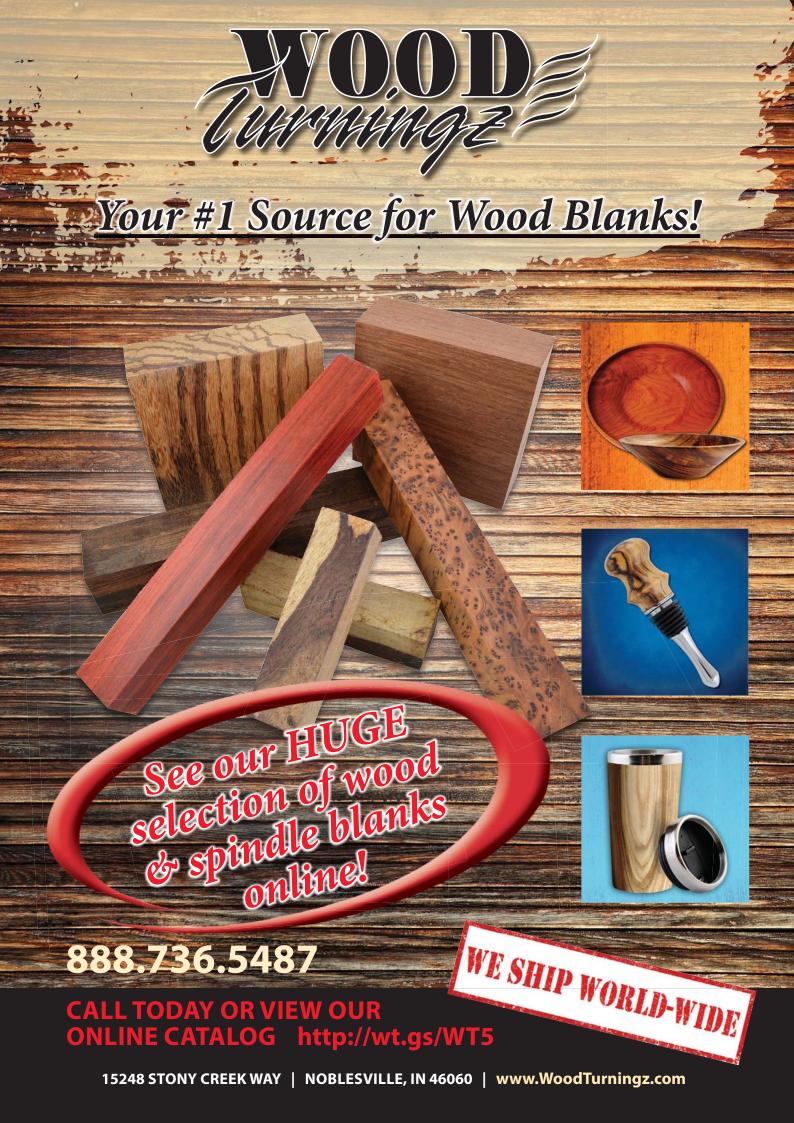
 Thinking I have a great finish, then applying the sealer or oil, then saying "oh dear, where did those sanding and swirls come from?" or words similar to that



'Interplay', sycamore (Acer pseudoplatanus)
vase, 100mm high ×
85mm dia – the walls
are 2mm thick. First
it was airbrushed,
pyrographed and
textured, then finished
with satin laquer

gold leaf substitute in the centre, finished with satin lacquer





# Branchwood vase

Rick Rich makes a vase from a branch of apple wood



or this project I'm using a small branch to make a vase. When complete, dried flowers or the silk ones from craft stores can be put in it. This project began when I used fresh cut branches to practise hollowing techniques for making scoops! I went outside, pruned a few branches, cut them into blanks and hollowed. Since I hadn't given myself enough extra wood for a proper handle, I added a cove and base and ended up with a small squat vase. Over time and practice, this project evolved to what you see here.

I have found that wood of little use to others can often be turned into something quite nice. This includes branches, the supply of which is plentiful and usually free. In making this project, we use material most would condemn to the rubbish heap or the chipper. Best of all, this project uses the skew chisel and gives you practice for hollowing. Second

to that, it is a nice gift, especially if a bit of greenery is added.

The wood selected for this project was a branch of apple (*Malus sylvestris*). The tree itself was cut down only a few days before, during a local road construction project and the wood was free for the taking. This particular branch was just shy of 75mm in diameter and was cut into a blank 140mm long, which works very well for a vase about 100mm tall.

I suggest that fresh branches be left long until ready to turn – the reason for this is my own bitter experience. I cut a few fresh branches into numerous blanks, slathered on end grain sealer and neatly stacked them on a shelf. A few days later I discovered, to my horror, that each and every one had split to the point of being worthless! Now I leave the branches long and cut only the blanks I

will turn within the next hour or two. Once turned, the vases sometimes warp slightly, but I have had no problems with cracking or checking as they dry.

### **RICK RICH**



Rick is a part-time woodturner from Washington State and his completed woodturning projects are usually given as gifts to friends and family. He is a member of the American Association of

Woodturners (AAW), the Cascade Woodturners in Portland, Oregon and a founding member of the Southwest Washington Woodturners in Vancouver.

rryacolt@gmail.com



### **INFORMATION & PLANS** 66mm (25/8in) **EQUIPMENT USED** 20mm spindle roughing gouge 12mm skew chisel 12mm radius scraper 10mm spindle gouge 2.4mm parting tool Chuck with standard jaws -I use the Oneway Talon with standard No.2 profiled iaws 22mm steb centre - I use the drive centre for chucks Revolving tailstock centre Jacobs chuck for tailstock mounting 20mm spade bit, ground 104mm (4<sup>1</sup>/<sub>8</sub>in) to a radius Outside spring callipers PPE: latex gloves, facemask, respirator/ 25mm (1in) dust mask and extraction 6mm (1/4in) 31mm (1<sup>1</sup>/<sub>4</sub>in)

The first step is to find and prune a suitable branch of apple (*Malus sylvestris*) wood, or similar

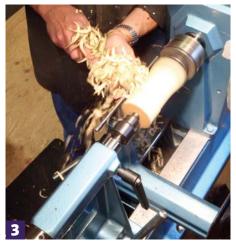
2 You can then locate and punch the centre and decide which end will be the top. Put this end at the headstock; this will allow for easier turning of the chuck spigot at the other end. Mount securely between centres, or with a steb centre in the chuck, and a revolving centre in the tailstock

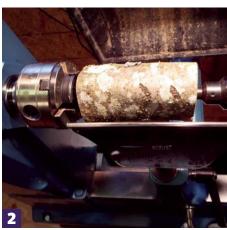
Using the spindle roughing gouge, turn a cylinder, leaving the top 25mm of bark at the headstock end intact. Cut a spigot at the tailstock end to suit your chuck

You can then chuck the blank and true the end with the 10mm spindle gouge

- **1.** Green branches turn easily and can be cut clean with sharp tools
- **2.** Having an even wall thickness reduces the chance of cracking when drying
- **3.** The more flared and dramatic the bark rim, the nicer the comments have been
- **4.** Make it in one session or the wood may move too much to safely turn



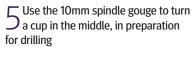


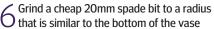








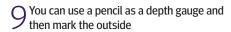




Secure the bit in the Jacobs chuck – holding onto it so it doesn't come loose from the tailstock – and drill a hole 75mm in depth

O lusing the 12mm radius edge scraper, hollow to a pleasing interior vase shape.

Remember, the outside walls of the vase follow the inside shape







# "Using the 12mm radius edge scraper, hollow to a pleasing interior vase shape"

Begin cutting the outside, leaving a rim of bark for the natural edge. Try to maintain an even 3mm to 4.8mm wall thickness

1 About a third of the way down it should start to straighten out. Here, stop and make a parting cut at the bottom depth. Set the callipers to 25mm and part down

1 Remove the waste with peeling cuts from the skew chisel; this enjoyable technique allows long flowing ribbons when done correctly. Follow up with plane cuts for a fine, smooth finish on green wood







- **5.** The more vases you make, the easier they are to turn
- **6.** When making peeling cuts with the skew chisel, I know I am pushing a tad too hard if the tool begins to shudder or chatter
- **7.** Be careful when parting the project off as the edges above the cove can be sharp
- **8.** I don't sand these vases as I like to see how smooth I can get the wood from the tool. It adds a bit of challenge to each one, especially if there is some propensity for tear-out in the wood
- **9.** I use a permanent black marker to mark on the spade bit shank before drilling; this ensures that I know where to stop for my desired depth
- **10.** Chainsaws can be dangerous if not operated correctly. Please ensure that you follow all applicable safety procedures before using one

13 Make a 'V' cut below the bottom depth and, using the skew chisel, make a 12mm bead to shape the bottom of the vase portion. Beading practice with the skew chisel is recommended before this step

The base is comprised of the 'V' groove at the top, a pleasing cove and a flat the size of the rim and wall thickness. Put a small chamfer at the bottom; this helps prevent tearout for the next step

15 Use the parting tool to create access to the bottom of the base. Part slightly inwards to the middle so it will sit flat on a table or shelf

### "...cradle the vase in your hand and catch it as it parts free"

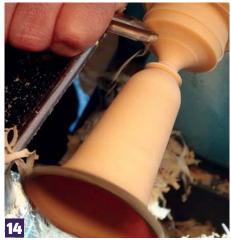
16 In order to stop any breakages, cradle the vase with your hand and catch it as it parts free

17There is usually a small nib in the middle; this is normal and you can remove it with a spindle gouge

The completed vase should look something like this •

- **11.** Turning green wood can sometimes spray a lot of water around the workshop. I always wear a facemask when turning; it protects me from debris and water spots from accumulating on my glasses!
- 12. If you do shape grind a carbon steel spade bit, remember to keep a cup of water handy to dip the bit into. It will help cool it off if you accidently begin to blue the metal
- **13.** If the bark on the natural-edge rim begins to come off, CA adhesive can be used to secure it back in place. Just remember to allow the glue to fully cure before turning the lathe back on!
- **14.** Drying flowers is an art in itself that I have not attempted as the silk flowers from craft stores are inexpensive and seem to hold their colour throughout the seasons
- **15.** I use a jig to size the chuck spigot on the blank; it saves time and ensures a good fit
- **16.** Practice making bead and cove sticks; it is an enjoyable monotony
- 17. When the project is fully dry, it can be finished like other dry timber. It could be coloured, or even some brave turners might add gold leaf or similar to the inside of the vessel, which would add quite a bit of artistic flair!















# CLICK'N CARVE



- Works with Wood, ABS, Foam, Modeling Wax, Styrenefoam, Epoxy Tooling Board
- Easy to use software
- Ideal for the commercial, professional, enthusiast and educational sectors.



All you need to do is CLICK-CONVERT-COMMAND-AND-CARVE...

Call 01494 523991 sales@tooltec.co.uk

Fax 01494 524293 www.clickNcarve.co.uk

The VB36 Bowlturner Lathe and steinert Woodturner's Oil available in the UK & Ireland from:

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



### **Treatex Hardwax Oil**

protects and enhances the appearance of all types of internal wood surfaces. Treatex Hardwax Oil is manufactured on a base of natural sustainable raw materials: jojoba oil, linseed oil, sunflower oil, beeswax, candelilla wax and carnauba wax.

- Brings out the timber grain
- Adds warmth to wood
- Easy to apply
- Quick drying
- No sanding required between coats
- Low odour
- Resistant to water, wine, beer, coffee, tea and fizzy drinks
- Withstands high temperatures
- Very durable
- Easy to clean and maintain
- Spot repairable
- Suitable for flower vases
- Safe for use on children's toys

tel: 01844 260416 www.treatex.co.uk





### **Water Cooled Sharpening System**



# **NEW!**

### **ULTIMATE PRECISION SOLID ZINC HEAD**



- All vital components integrated with the zinc top
- **Precision** improved by over 300%\*
- **Customise** your T-4 with the full range of Tormek jigs!

Redefining precision for compact sharpening machines!



The motor and the main shaft are now both mounted in the zinc cast top, improving the rigidity of the machine.



Metal machine plate makes it a convenient place to store the Tormek AngleMaster, which has magnetic feet.



With the sleeves for the Universal Support now being cast in the zinc top, the precision has been improved significantly.



An integrated handle makes the machine easy to place and move when necessary.

<sup>\*</sup> Compared to Tormek T-3



A Family business, giving family service and family values

# Ever thought of adding some carving or piercing to your turning? Well now its affordable with the fantastic range of Super Detailer micro motors



With a top speed of 60,000 rpm, a digital speed display, cruise control, forward and reverse.

A perfectly contoured and comfortable brushless handpiece, with an easy to change collet system.

An onboard dial speed control and a fully variable foot operated speed control.

This machine certainly does cover all the bases.
A full UK One Year Warranty

All for £545.00 (Which includes VAT and Delivery)

The Super Detailer NP3(S)



- 1. An operating speed of 35,000 rpm
- 2. Dial speed control.
- 3. Forward and Reverse.
- 4. Quick change twist to lock/unlock burr change.
- 5. Specially sealed bearing to prevent dust and dirt getting in.
- 6. Handpiece Rest.
- 7. Comes complete with either a 3/32" or 1/8" collet fitted as standard. (Spare collets available separately)

Comes with a Full One Year Warranty

All this for £135.00

(Which includes VAT and Delivery)

Get an extra handpiece for the NP3(S) for only £60

### The Super Detailer NP5



- 1. An operating speed of 40,000 rpm
- 2. Dial speed control.
- 3. Foot speed control.
- 4. Dual Handpiece Capability
- 5. Forward and Reverse.
- 6. Quick change twist to lock/unlock burr change.
- 7. Specially sealed bearing to prevent dust and dirt getting in.
- 8. Handpiece Rest.
- 9. Comes complete with either a 3/32" or 1/8" collet fitted as standard. (Spare collets available separately)

Comes with a Full One Year Warranty

### All this for £295.00

with 1 Handpiece

(Which includes VAT and Delivery)

Get an extra handpiece for the NP5 for only £75

Order online at

### www.woodworkscraftsupplies.co.uk

or phone on
01633 400847
Woodworks Craft Supplies, P.O.Box 102, Caldicot NP26 9AG

# Umbrella stand

**Philip Greenwood** turns this useful stand for storing umbrellas and walking sticks

his stand can be used for umbrellas and/or walking sticks. It will keep them all tidy in one place and protect your floor from water and sometimes mud as well. I have made this stand to take a small ceramic dish in the bottom to collect any water and dirt; this can be wiped out as needed or the dish could have a piece of foam in it to soak up the water. This need not be ceramic as any suitable type of dish could be used for this purpose.

The base and stems are straightforward turning, while the top requires you to think of the order of turning and the use of a scrap disc as well. When parting through a piece of oak (Quercus robur) of this size you need to make sure both parts are securely fastened or one part is going to come loose and two things can happen: first, it will jam the parting tool and second, it may jam behind the toolrest before you can stop the lathe. Both the underside of the top and the top side of the base need holes drilling in them to take the stems. First you need to make sure that these are equally spaced apart, and second that they are on the same diameter circle as well - this is known as a 'pitch circle diameter'. The other consideration is which way the grain direction is running. You want the grain in the top and base to run in the same direction as close as possible. When I drill the holes, I try to line up the grain horizontally with the toolrest when marking out the first two holes and then at 90° for the other two holes. Just be careful when gluing up the project that you remember this as well, as once glued and set, it is too late to change the position of the parts easily without damaging the joints.

I chose to use oak for this project. The umbrella stand is a practical item that will take a knock from time to time, so the timber needs to be hard wearing. The other advantage of using oak is its weight; the stand needs to be heavy so it will not fall over if tall walking sticks are placed in it. I decided to use finishing oil as this will add water resistance to the piece.

### PHILIP GREENWOOD

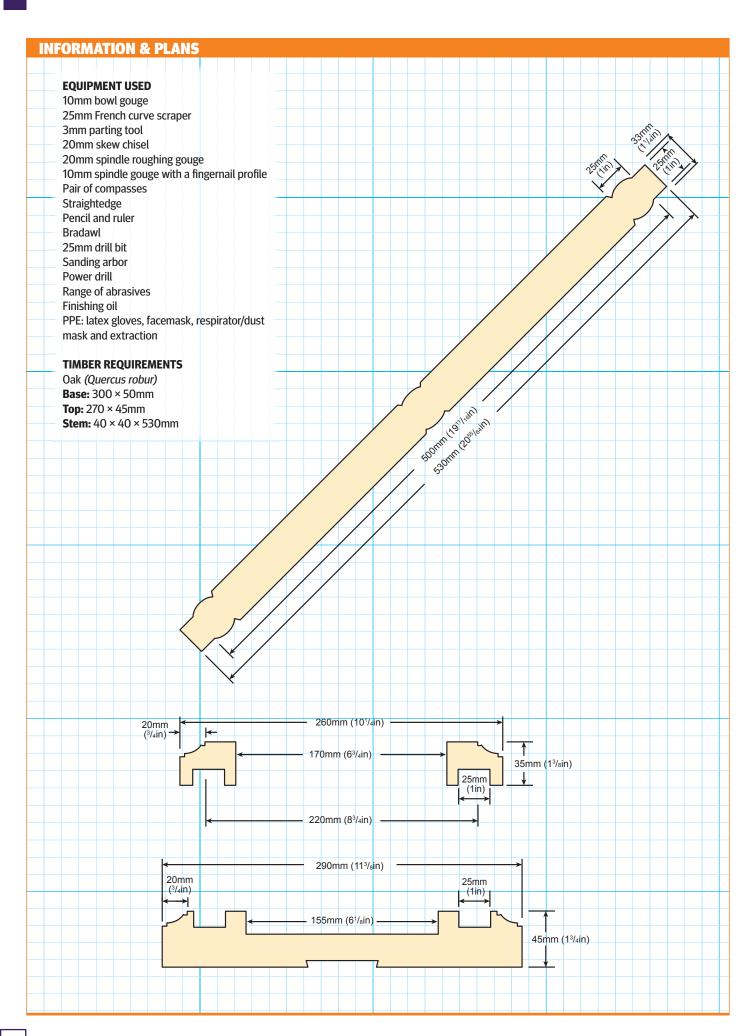


Philip has been turning wood since 1980 and started turning professionally in 1986. He was accepted onto the Register of Professional Turners (RPT) in 2006. He is also a member of the AWGB. He can be seen working in his workshop in North Yorkshire and has demonstrated at the woodworking show at Harrogate since 2008.

He runs courses at his workshop.

philip@woodturningintoart.co.uk www.woodturningintoart.co.uk





















Looking at the blank, decide which part will be the top of the base. Find the centre, then use a pair of compasses to draw a circle to match the diameter of the faceplate ring. Then use screws to mount the base on the faceplate. The screws should not protrude too far into the top but still give a good hold. I tend to screw them in at an angle to give a firmer hold

Use a bowl gouge to true up the outside diameter to remove the unevenness; this will reduce any rocking of the lathe due to the blank being out of balance. Don't worry if it's not perfect as you will finish this later

Now you need to clean the bottom face of the blank. Using a push cut, take several cuts to clean this up. Use a straightedge to check the bottom is flat or with a slight concave near the centre

Amark the chuck jaws' diameter and, using a parting tool, cut down 6mm and then remove the centre part with a bowl gouge. Cut the dovetail with the long point of the skew chisel laid flat on the toolrest. Sand this through to 400 grit, apply oil to all of the surface and then leave to dry

5 Remove the faceplate and then hold on the chuck recess. Mark the diameter of the dish with a pencil and ruler and start to remove the waste

Continue removing the waste – to a depth of 18mm in my case – and then clean the sides with a parting tool or the long point of the skew chisel. Check the dish fit – you want a little slack in the hole to allow any timber movement

Mark a circle of 220mm; this will be for the stems. Now divide this into four equal sections. Try to look at the grain direction so this can be matched with the top. Use a bradawl to mark the four positions

Turn a cove on the edge, taking several cuts from the top face to the edge. Once this is completed, use the point of the skew chisel to cut a small lip to highlight the cove. Now sand through the grits, apply oil and leave to dry. More oil will be applied later

- 1. Wear safety glasses and a dust mask at all times. If there is no air filter used in the workshop, the dust will still be airborne for hours after you finish turning
- 2. Check the screws are long enough to hold
- **3.** If you hear an unexpected noise, stop the lathe to check what's causing it
- **4.** When parting deeply, make sure you have a clearance cut to stop the tool grabbing



Line up the hole mark that you made in step 7, clamp the base to the pillar drill table and drill with a 25mm drill bit to 16mm depth.

Repeat for the other three holes

1 Now for the top part. Fit the faceplate ring to the top of the disc with screws and then attach this to the chuck. True up the outer diameter and base with the bowl gouge as in steps 2 and 3. Using a straightedge, check the bottom is flat and even all the way across

1 Use a sanding arbor on a drill to sand to a smooth surface; start with 120 and work through to 400 grit abrasive. Remove the dust and then apply oil to the surface

12 Cut a disc with a diameter of 240mm and draw a circle of 220mm diameter on the face; this is the diameter of the stem holes. Using the centre point from the compass, line this up with the revolving centre and advance the tailstock so this disc is held against the face of the top part of the stand. Line up the grain direction on both pieces

13 Now mark the four holes on the disc – try to have the marks running horizontally and vertically as in the photo. This is so the grain on the top and bottom parts of the stand line up

Screw the two discs together, firstly on the four marks made in the previous step; this will hold the outer section. Now you can remove the tailstock. Draw three more circles on the disc: first mark the chuck recess diameter, then the diameter that you will part through from the other side; this will help you decide on the final circle for the screws that will hold the centre section in place when parting through. Place four screws on this circle

15 Remove the waste from the recess with the bowl gouge, and with the skew chisel laid flat on the toolrest, cut the dovetail using the long point. This dovetail angle needs to match your chuck jaws' angle as closely as possible

Place the chuck jaws in the recess and tighten the chuck. Take a light finishing cut on the outside edge from both directions; remember that when looking at the lathe, the left face of the disc is the finished edge so cutting from both directions will prevent the edge from splintering

### **HANDY HINTS**

5. Try to match grain direction; this can be more difficult on highly figured timbers6. Dry assemble the parts first to check the fit before you proceed



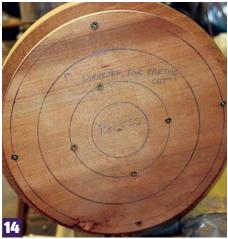






























17 Thin the thickness of the disc down a little with the bowl gouge; you don't need to go across the full width as the centre part will be scrap timber. Draw a circle of 170mm on the face to mark where you will part through

Place some detail on the corner, remember that this is the top face of the stand; this is a cove using the bowl gouge working from the top face towards the edge. Then, as in step 8, use the long point of the skew chisel to frame the cove or you may find that the shapes can just merge into one another

19 Sand through all the grits of abrasives up to 400; this will allow you to remove any tool marks on the surface of the timber. Apply oil to all the surfaces, then use a piece of 400 grit abrasive to wet sand the surface; you'll find that this works like a grain filler to produce a very smooth surface

Start to part through and separate the two pieces, cutting up to the left side of the pencil line. When you have parted in around 6mm, slide the parting tool back out and take a second cut to the right of the first cut; this will prevent the tool from binding and grabbing. Keep parting through slowly until you reach the scrap disc and keep stopping and checking remember both pieces are held securely. Stop the lathe and remove the disc from the chuck. Now remove the four screws holding the centre part only and place the disc back on the chuck. You can now sand the inner part of the top and oil it. Remove it from the chuck and remove the final four screws and the scrap disc. The four holes where the screws have been are where you need to drill for the stems to fit as in step 9

2 1 You can now mount the stem between centres and rough down with the spindle roughing gouge. The first mark is for the spigot, then measure 500mm and mark again for the second spigot

2 Cut the spigot to size using the parting tool – in my case this is 25mm in diameter, which matches the hole size I drilled. The spigots are 15mm long

23 Turn a simple bead in the middle and at the ends – these are 25mm wide. Sand the spindles through the abrasive grits and keep stopping and checking you have removed all the marks before you move on to the next grit. Once this is completed, you can then apply the oil

The next step is to give all the parts two more coats of oil, allowing the oil to dry between the coats. Now glue the stems into the base, checking for best grain alignment and adjusting as necessary. Glue the top on, again checking the grain direction. Allow the glue to set before inserting the dish. The completed project should look something like this •

The genius of British design, the precision of German engineering.

What a partnership!
What a lathe!

VB36 Master Bowlturner lathe from £5690

Given the choice

between the good and the great, why

settle for just "OK"?

Steinert lathes from £2250
Model shown from £5540

It takes a lot to make

there the toolpost come from thes

Oneway lathes from £2105 2436, below, from £4920



WivaMac lathes from £2090 DB6000, below, from £4010



### The ToolPost

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

sharing expertise

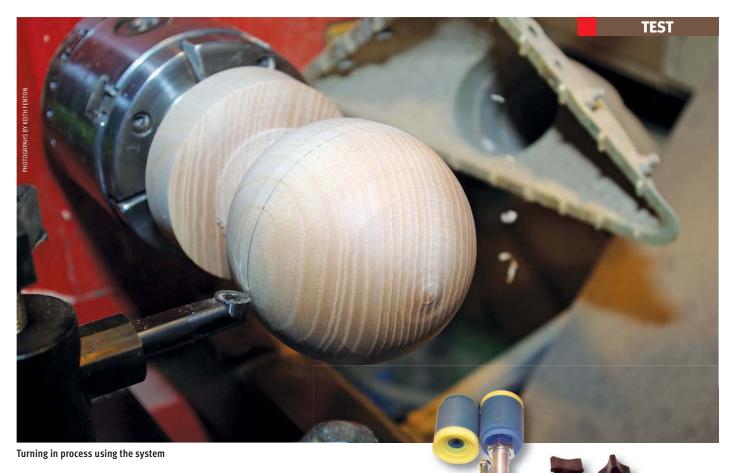
# Kit & Tools

A mixture of tests and press releases 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

### Perfect Sphere™ Tool from Carter Products

If you turn spheres on a regular basis, then you should take a look at this tool from Carter Products. **Keith Fenton** puts it through its paces



he Perfect Sphere™ Tool comes in several parts, comprising a mounting plate, way spacers, swing arm, upright riser and cutting head, together with several Allen screws and a bolt. The swing arm and mounting plate are aluminium and the remainder steel. The cutting tool is a Hunter Tool No.4 carbide cutter.

The tool has several components that combine to form a sphere turning system. The tool can also be used to cut concave forms in work, such as bowls, but this aspect wasn't tested. These items are manufactured in the USA by Carter Products. The strength and design allow the turning of spheres from 12-360mm in diameter on most lathes from 255-635mm swing size. The lathe used does need twin bed bars as the mounting base fastens between the ways. On the website, the manufacturer says that due to the mounting

height, the largest diameter sphere you will be able to turn is your lathe swing height minus 50mm. For example, for a 305mm lathe, your max. sphere would be 255mm.

### Setting up

The mounting plate is fitted by adjusting the way spacers to centre the mounting plate. The system is designed to be fitted to lathe beds that have the central gap of the bed in line with the spindle – the majority of lathes have this but I used a lathe that had it offset and had a plate made specially for it.

The swing arm has four holes, which allow

The full Perfect Sphere™ Tool kit

the sphere size to be varied. The tool can also be used for hollowing using a specific hole and the blade arced into or out of the wood, depending on grain direction, but as mentioned, this was not tested.

The upright riser was then fastened onto



the swing bar with a flat-headed bolt. There are seven different lengths of riser available to accommodate most lathe swings. The tool is supplied with a riser - you select which one you want when ordering - to suit various sizes of lathes.

The riser needs to match the lathe swing and enables the cutting tip to meet the lathe's centre height and has nothing to do with the size of the spheres to be turned. One thing I noticed was that the system uses four different size Allen keys, which can be a little tedious. Note to manufacturer - could the number of variations in key sizes be reduced?

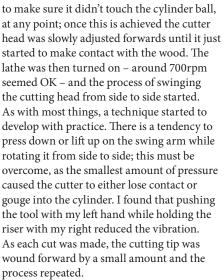
### In use – preparation

You have to prepare a blank to start with so a 75mm section of ash (Fraxinus excelsior) - slightly wider than the sphere required was chosen and a spigot was cut to fit it in a chuck. A centreline was then marked on the cylinder to highlight the centre of the sphere and the two outside ends of the potential sphere trued up with a parting tool - the chuck end only parted partway through. The corners were then rounded off with the right-hand, tailstock end, being turned away fully and the left-hand side, headstock end, section was left at around 20mm diameter.

### In use – turning the sphere

With the cylinder prepared, the centre of the sphere was marked with a pencil both around the vertical circumference and at the tailstock centre. This, along with a set-square, enabled the cutter head tip to be set up square to the centrelines in both orientations. It took several attempts and some practice to line the cutter up in both orientations simultaneously. It was a little like learning to ride a bicycle, but once mastered, it seemed easy. The aluminium swing arm has a centreline scribed into its top surface to enable the use of a set-square to position the swing arm perpendicular, at 90°, to the lathe bed ways. Once the tool

allowed the remaining spigot to be reduced in size as the sphere making progressed. A larger spigot was required initially in order to reduce vibration, but as the sphere was finalised, the - headstock - end diameter can be progressively reduced; this makes the final remounting and finishing an easier job. is aligned, the cutting head is We used the tool at a club night mounted back onto the riser and, in addition, a friend who had post, far enough back so as never made a sphere previously wanted to try the tool. In total not to make contact with the cylinder. we made 20 balls varying from The tool was 6-200mm in several different then rotated woods and were both delighted with the final results. In use - finishing The spheres were cut off, once the rounding process had A selection of spheres



When moving the cutting head around a little downward pressure reduced the contact while a little lift increased it; this was used to facilitate the control of the cut. The cutting head can be straight or rotated to 25°; this was useful when making the final cuts at the headstock, spigot end as it enabled the cutter to move further into the cut. Vibration was reduced by keeping the cutter tip as close to the riser bar as possible. The tailstock end was finished first and the small remaining nub shred off with the cutter. I didn't do so, but a revolving cone centre could be used in the tailstock to support the sphere until it was time to part off the headstock spigot.

Experience soon showed that it was worth pushing the toolrest banjo to the headstock end of the ways before fitting the sphere turning tool to the bed bars. This then



Turning off the mount

been completed and the spigot stem was left at around 5-20mm, depending on the size of the sphere. The spheres were then mounted between two shaped wooden cups. There are two dual density urethane chucking cones supplied - headstock and tailstock - to enable the completion of the spheres previously prepared on the sphere system. These were not tested as the Morse taper didn't run true and the supplied thread didn't fit my revolving centre. Once the sphere was mounted between the cups, it would have been possible to realign the sphere tool to the centreline of the sphere to turn off the remaining nub. I found it quicker to turn off the remaining wood with a gouge. The sphere was then rotated in the cups several times and sanded through the relevant grits of abrasives until finished.

### Verdict

I think I had more enjoyment from this tool than any I have tried or tested. It does take some time to master, as do many tools, but once the initial setting up is resolved and the techniques practised, the results are very good. I have tried – and own – an alternative sphere cutting tool but the Carter Products version is far superior: the tool cuts rather than scrapes and the final finish on the wood is excellent. Overall, the tool was impressive and as I turn spheres regularly, this is definitely a tool I would like to own. You can also see various video clips on the website, which show the system in use. See details below.

### **DETAILS**

**Prices:** Perfect Sphere™ Tool complete **System with riser stud** – from \$349.90 (£223.37); Perfect Sphere™ Chuck – from \$64.95 (£41.47); riser stud for Perfect **Sphere™ Tool** – various sizes available – from \$24.95 (£15.92) **Contact:** Carter Products

Tel: (001) 616 647 3380 Web: www.carterproducts.com

turned using the system



**Walter Hall** looks at this versatile pen centre from Axminster, which is an excellent aid for pen turners

he quick-change pen centre from Axminster Tools & Machinery is the latest of several designs of mandrel saver available to pen makers. Like all similar devices, the centre consists of a revolving centre mounted on a Morse taper, which is drilled to fit a standard pen mandrel. The use of such a device affords two major advantages over the more usual method of mounting a pen blank and bushings, using a nut on the threaded tailstock end of the mandrel. By bringing the pressure from the tailstock to bear directly upon the bushings, any

tendency of the mandrel to distort or whip is removed, and changing over from one set of bushings to another is facilitated by there no longer being any nut to remove, thus speeding up the process.

### In use

In use, the centre ran smoothly and quietly and functioned exactly as expected. The quality of the bearings and general build quality are to the high standard expected from Axminster's Evolution range and give the user confidence that

this will be a robust tool with a long life. As this centre is designed to fit Axminster's own range of mandrels and because there can be variances in mandrel diameter tolerances between different makers – I have found that mandrel shafts can vary – from 6.1722mm to 6.2738mm. I also tested the centre with mandrels from Turners Retreat, Penn State Industries and Rotur and found that the centre worked perfectly well with all those tested.

### Verdict

This is a good quality centre, which does the job it is designed for well. It will help prevent 'out of round' issues caused by mandrel distortion and will speed up batch production.



This heavy-duty live tailstock centre is perfect for pen turners

### **DETAILS**

Price: £24.95

**Contact:** Axminster Tools & Machinery

**Tel:** 03332 406 406 **Web:** www.axminster.co.uk

### **PAD-O-VAC TOOL**

hile power sanding bowls, platters and the like can lead to an excellent finish, it's fair to say that it's one of the woodturner's least favourite jobs, due to all that harmful dust. Now at last there's a solution to that problem.

Designed by a turner of 30 years, Pad-O-Vac is a tool designed to deliver all the advantages of power sanding while simultaneously capturing and disposing of the dust before it has a chance to go anywhere.

The strong, durable design is light enough to use for extended periods, while the two-handed grip lends itself to excellent control and feedback. Developed by an experienced engineer, this tool promises to give years of





service, with all the components finished to a high standard.

The tool can be used with any drill that has a 43mm Euro collar and any vacuum dust extractor with a flexible hose, although an adaptor may be needed for some. Simply attach the tool to your

power drill, connect the dust extractor and you're ready to go. Suitable for the hobbyist and professional turner.

**Contact:** Pad-O-Vac **Tel:** 01566 777 599 **Web:** www.pad-o-vac.co.uk



### LIBERON WOOD CARE PRODUCTS

iberon, the leading manufacturer of wood care has recently launched three new products to extend its wood care protection range. Hard wax oil is a unique water-based blend of high quality oils and waxes for a superior finish on interior wooden floors and furniture. This product ensures surfaces are waterproof and stain resistant while maintaining the natural look of the wood. With its EN71 approval it is also safe for use on toys.

The quick-drying tung oil features new technology, which brings a four-hour drying time

to tung oil applications for both interior and exterior wood. Ideal for use on kitchen worktops, tables and chopping boards, it is resistant to water, alcohol and food acids and is also safe for toys.

Exterior wood protector is a new clear finish suitable for both vertical and horizontal wood protecting it from weathering. This product offers long lasting protection with the added benefit of being water and UV resistant, which makes it suitable for pergolas, balustrades, fences, garden furniture and summer houses. The clear treatment will



not alter the natural colour of the wood and will form a protective barrier against weathering, sunlight and extreme temperatures of -10°C to +35°C.

Contact: Liberon Tel: 01797 367 555 Web: www.liberon.co.uk



### **JET DC-2300 EXTRACTOR**

he Jet DC-2300 is a twin-bag chip and coarse dust extractor, suitable for many machines in the workshop. It can be connected to up to three smaller machines via its three 100mm connectors. The manufacturer recommends connecting it to a simple 125mm metal duct system.

An alloy bodied motor drives a high efficiency impellor fan; the air flowing into the bags is via metal tubes, again creating efficient airflow. Plastic waste sacks are used which are easy to replace and held in place with quick-release metal straps. Large polyester air filters are fitted; these can be replaced with two cartridge filters which upgrade the filtration

capability of the machine to be able to handle sanding machines.

The base has castors for easy mobility around the workshop. It is fitted with a 13A plug, but in some cases it may need a 16A supply. Plastic 785 × 1,200mm waste sacks are available in packs of 10. Please note that the hose is not supplied. This machine has a Performance Rating 1. Price is valid until 31 December, 2014.

Contact: BriMarc Tools & Machinery Tel: 03332 406 967 Web: www.brimarc.com

£419.95

### **DEWALT'S 'GUARANTEED TOUGH' HELP FOR HEROES KIT**

ollowing the announcement of a new partnership with Help for Heroes, DEWALT is releasing a Help for Heroes XR Li-ion promotional kit. The brand will donate £10 from the sale of each kit to supporting wounded, injured or sick Services personnel from the British Armed Forces.

The kit includes a DCD795 compact brushless hammer drill-driver, DCF886 impact driver and two 4.0Ah batteries sold in a Help for Heroes branded TSTAK kit box with an exclusive DEWALT camouflage inlay. Both tools use brushless motor technology reducing friction, thus eliminating energy wastage and maximising the runtime and life of the tool. The 4.0Ah batteries offer users 33% longer runtime compared with a standard 3.0Ah battery

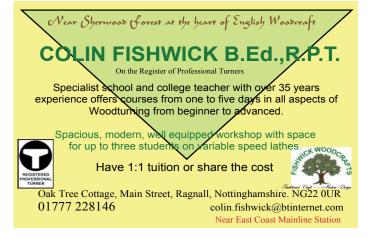
and all for the same size and weight. The batteries have a charging time of 70 minutes and feature a built-in LED state of charge indicator, letting the user know when it is time to charge the battery or swap over to a fully charged one.



FROM £407

Contact: DEWALT
Web: www.dewalt.co.uk

















## HIGH QUALITY AFFORDABLE INK REFILLS FOR THE PEN TURNING COMMUNITY

Enhance your pens with our range of refills made specially for discerning pen makers

 $\Longrightarrow$  Beautort  $\simeq$ 

The refill is arguably the most important part of a pen. Ours are made with the pen turner in mind, to exacting standards and tolerances from high quality

Swiss made components and ink. Smooth, non-skip performance that dries on the paper, not in the refill.

Beautort

www.beaufortink.co.uk

# We specialise in supplying quality exotic hardwoods for: • wood turners • snooker & pool cue makers • longbow makers • longbow makers • guitar & musical instrument makers • antique furniture restorers Unit 3 Bowden Hey Road, Chapel en le Frith, High Peak, SK23 0QZ Contact us today on 01298 815338 www.exotichardwoodsukltd.com

### INTERESTING TIMBERS

since 1986

### EXTENSIVE RANGE OF ENGLISH GROWN HARDWOOD TIMBERS

Air or kiln dried.

Quarter Sawn Oak usually available.

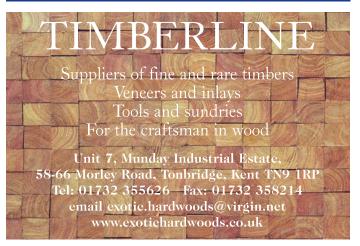
Turning and carving blanks, full machining service.

Mail Order available - No order too large or small.

Contact us for details or come and see us (please ring first) We'll ensure a helpful personal service.

### DAVID and CATHERINE SIMMONDS,

Wells Road, Emborough, Near Bath BA3 4SP Tel: 01761 241333 www.interestingtimbers.co.uk





### hamilton beverstock

CNC sharpening & material cutting specialists

- TCT CIRCS SERVICING
- ROUTER CUTTERS
- POWER TOOLS ABRASIVES
- TURNING TOOLS
- PLANER BLADES

### **BAND SAW BLADES**

WELDED TO ANY LENGTH



With over 33 years experience in the saw industry, and as a supplier to major machine manufacturers, we know, like thousands of other satisfied customers, you'll be happy with our high quality band saw blades for cutting wood, metal, plastics, food...If you're a hobbyist or a professional, call us today for a friendly service, free advice and competitive prices.

### Hamilton Beverstock Ltd

Grange Industrial Estate, Llanfrechfa Way, Cwmbran, Torfaen, NP44 8HQ Tel: (01633) 838900 Fax: (01633) 873803 Email: sales@hamiltonbeverstock.com













### MAIL ORDER

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

### TRUCUT

Spurside Saw Works, The Downs, Ross-on-Wye, Herefordshire HR9 7TJ Tel: 01989 769371 Fax: 01989 567360

www.trucutbandsaws.co.uk

### ALL OLD WOODTURNING TOOLS WANTED

Also wanted - all woodworking hand tools and anvils.

Very best prices paid for Norris planes.

Please contact Tony Murland Telephone: 01394 421323 Email: tony@antiquetools.co.uk

### **LINCOLNSHIRE WOODCRAFT SUPPLIES**

Easy to find - Only 2 mins from A1 - Easy to Park
Specialist in High Quality Turning Blanks in Both Homegrown and
Exotic Timbers. Over 60 timbers in stock.

OPEN 9.00AM - 4.30PM MON - FRI 9.00AM - 4.00PM SAT

Send six First Class stamps for our NEW MAIL ORDER CATALOGUE

### FOR EXPERT ADVICE CONTACT: ROBIN STOREY

THE OLD SAW MILL, BURGHLEY PARK, LONDON ROAD, STAMFORD, LINCS PE9 3JS

TEL: 01780 757825

NEW WEBSITE: WWW.LINCOLNSHIREWOODCRAFT.CO.UK

# JUST WOOD ONE OF SCOTLANDS LARGEST WOODTURNING CENTRES STOCKISTS OF AXMINSTER POWER TOOLS - CRAFT SUPPLIES PLANET - ROBERT SORBY - BRIMARC TURNERS RETREAT - CROWN HANDTOOLS FULL RANGE OF ACCESSORIES - FINISHES - ABRASIVES LARGE SELECTION OF KILN DRIED, NATIVE & EXOTIC BLANKS OPEN MONDAY -TUESDAY - THURSDAY - FRIDAY - SATURDAY 9.30-4.00 SUNDAY 10.00 - 4.00 CONTACT CHARLIE ON TEL: 01292 290008 MOBILE 07775 722736 E-MAIL: CHARLIEJUSTWOOD®AOL.COM WWW.JUSTWOODONLINE.CO.UK 12A LIMEKILN ROAD, AYR KA8 8DG



W.L.West & Sons Ltd Selham, Petworth, GU28 0PJ :01798 861611 f:01798 861633 Hardwoods

- Wood finishes
- Australian Burrs
- Exotic Timbers
- Woodturning Blanks
- Woodturning Courses (see website for dates)

RECORD POWE

- Woodworking Machinery
- Woodworking Tools
- Fencing, Gate & Decking Products
- Bespoke Garden Furniture

Timber, Tools & Machines
for D.I.Y • Carving
Woodturning • Furniture From Shop@wlwest.co.uk

Off A272 Midhurst to Petworth road opp The Halfway Bridge

### **Woodworking Materials**

### Large selection of products

Clocks & Accessories (Quartz & Mechanical), Barometers, Thermometers, Cabinet furniture, Screw, Plans, Kits, Polishes, Adhesives, Abrasives etc.

For free catalogue please contact,

Chris Milner, Woodworking Supplies (Dept WT), Beresford Lane, Woolley Moor, Nr Alfreton, Derbyshire DE55 6FH
Tel/Fax: 01246 590 062

Email: milnerwoodwork@aol.com

### Allan Calder's Ltd Sandpaper Supplies

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



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

Web: www.sandpapersupplies.co.uk

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

Woodturning magazine is the best platform for reaching your target market

To advertise contact Russell on **01273 402841** or **russellh@thegmcgroup.com** 

### New easy arm hollowing jig from Hopewoodturning



### Takes all the stress away from hollowing!

- All joints have twin bearings - Main stem has Phrosthus bronze bearing.

Fits lathe from 5" centre height to 24" - Main handle takes 19mm with a 16mm reducer included.

Full details and video clip available from my website.

Limited Offer: £185 with free UK delivery









### www.slhardwoods.co.uk

Bespoke Services - About - Help - Price Guide - Contact Us

Solid Timber Timber Products Sheet Material Edging Polishing Carving & Turning Ironmongery Tools & Accessories Hot Deals

Product Search a

















Woodturning Blanks

Robert Sorby Turning Tools

Turning Kits

Woodturning DVDs Robert Sorby Beginners Robert Sorby Cutters Turning Tool Set 6pc

Woodturning Blanks - Tools - Books & DVDs

Call or email us for quote - info@slhardwoods.co.uk - 0203 051 4794



The Ironwood Source Since 1989 Retail & Wholesal Stabilized & Dyed Burlwoods

Shop online at www.arizonairo<mark>nwo</mark>od.com E: Sales@arizonaironwood.com T: 520-647-3453

Always top quality, beautiful Ironwood blanks that you will find nowhere else!



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

The Craft Units, Tredegar House Newport NP10 8TW Tel: 01633 810148 Mob: 07854 349045 www.iscawoodcrafts.co.uk iscawoodcrafts@yahoo.co.uk



# CRACKED HANDS & FEET HEALED IN 10 DAYS! 100% No Risk Money Back Guarantee! Call Free 0800 0588 911 Cheques to Richard Starkie Associates, WTT,

### TRIAL **OFFER!**

2oz Travel Tub £12.95 This cream works fast healing cracked hands and feet. It's water, chemical, oil, acid & dirt resistant and lasts 5-6 hand washes so is very economical.

To Save £3.95 P&P quote code: WTT

online at checkout or when you phone Timber Cottage, Wistow, Leicester, LE8 0QF

### THE WOOD SHED

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

www.wood-shed.com

### The Wood Shed

native and exotic woods woodturning tools accessories • finishes

woodturning courses for all abilities



### Uk Suppliers of Olive Wood Blanks for Turners

At Olive Wood Turning my intention is to supply part seasoned olive wood turning blanks in useable sizes at reasonable prices. We supply to both professional and hobby turners as well as turning supply shops

All blanks have been dressed and wax sealed to help prevent splitting.

Multi-buys available to save on postage costs

If you have a project but aren't sure if Olive is for you, call to chat it over, I'm not a salesman, I'm a wood turner that sells some nice wood.

Courier service to mainland UK, Highlands & Islands, Northern and Southern Ireland and Europe

If you have no internet please phone or write to the address below to receive a product list and order form in the post

### WWW.OLIVEWOODTURNING.CO.UK

TEL: 07714 204060

EMAIL: JAMES@OLIVEWOODTURNING.CO.UK

Unit 10 Lidun Park, Boundary Road, Lytham, Lancs FY8 5HU

SPINDLE BLANKS

**BOWL BLANKS** 

PEN BLANKS

OLIVE WOOD PLANK

**OLIVE WOOD BURR** 

**MULTI BUYS** 

11 000 TI

### Timberman

Gwili Garage, Bronwdd, Carmarthen SA33 6BE Email: mike.jones@freeuk.com

Tel: 01267 232621 Fax: 01267 222616

Open: Mon-Fri 9am - 5pm Saturday 9am - 12 noon





## Hardwoods, Turning Blanks, Woodworking Machinery & Power Tools

A B C CV D F H M P S T W

• SIP

• Fox

Bosch, DeWalt, Trend, Scheppach,

Record, Mini Max, Robert Sorby, Tormek, Brimarc, Chestnut

A,B,C,F,H,P,S,T,W

• Startrite

Robert Sorby, Crown Tools, Liberon, Fiddes Finishes,

Jet Lathes, SIP

### LEEDS

### **D.B. Keighley Machinery Ltd** Vickers Place, Stanningley,

0113 2574736 Tel: 0113 2574293 Fax: Mon - Fri 9am - 5pm

Website: www.dbkeiahlev.co.uk

Jet

• Sheppach Rojek

Triton

 Charnwood Rvobi

ABCDMPW

Products, Planet

### MID CORNWALL SAW SERVICE

Trelayour Road, St DENNIS Cornwall PL26 8AH

Tel: 01726 822289

trend

### www.midcornwallsawservice.com

Open: Mon-Fri 8am - 5pm Lunch 1 -1.45pm

Saturday 8am - 12 noon

Large Supplier of Woodturning Tools and Woodwork Machinery All On Display

W.H. Raitt & Son Ltd Main Street, Stranorlar Co.Donegal, Ireland

(00353 749131028) whraitt@eircom.net





### «clikcraft»

Websites for craftspeople. Made easy.

### Your own professional website for only £50 pa

Clikcraft is a new easy-to-use service for craftspeople who want a website without the cost and hassle of setting one up. Using our online admin system and a wide choice of stylish templates designed especially for craftspeople, you can create and edit your own web site quickly, easily and very cost-effectively.

### Amazing value – all of these features for £50 pa!

- Update or change your site whenever you want
- Have as many pages as you like in a variety of formats, including a blog, contact form, about page, events diary, etc.
- Opt to use a template with a shop and take orders online. If so, take payments by linking up to PayPal. We do NOT take any commissions! (Max 50 products or upgrade for more.)
- Stylish slideshows and carousels to display your work.
- Opt to have your own domain name for an extra £6.50 pa or use one you may already have.
- No catches to the pricing!
- Minimal technical expertise is required Visit www.clikcraft.com and sign up for a free 14 day trial. Download the Easy Start User Guide and follow the step by step









### Visit www.clikcraft.com for a FREE 14 day trial



### When you need a reliable tradesman for work on your home...

...choose a member of The Guild of Master Craftsmen. For a tradesman you can trust - and a job done well.



Barkers Lane, Snainton, Nr. Scarborough, North Yorkshire YO13 9BG TEL: 01723 859545 WOODWORKING SUPPLIES Open Mon-Sat 9.00 - 5.00. Sun CLOSED

### www.snaintonwoodworking.com

NEWSLETTER Sign up for our newsletter Subscribe to our email/newsletter IT'S FREE TO JOIN @ www.snaintonwoodworking.com Keep up to date with offers,

BUFFING SYSTEMS
Chestnut Ruffing wheel Kit CHARNWOOD W815 Mini Lathe Special Offer £169 99 W821 Vari Speed Lathe £380 W813 Lathe and Chuck W880 Professional Lathe CHUCKS AND ACCESSORIES
Charnwood W810 3 Jaw Chuck
Charnwood Viper 2 Chuck £89 Charnwood Viper 3 Chuck £99
Record RP2000 Compact Scroll Chuck From £69.95 Nova G3 Scroll Chuck £119.99 Supernova 2 Chuck Sorby Patriot Chuck £159.99 Full range of jaws for above chucks in stock JET JWBS-20Q Bandsaw

NEW JWL-1015VS Lathe JWL-1221VS Midi Lathe .IWI -1642 Lathe JTS-600XLM Table Saw **PEN TURNING** 

and press includes 25 British Iwood pen blanks free

From £159 £1849 £539.95 From £724 £1829 £1619.95 Charnwood & Rotur Pen Turning Kits Pen Centering Vise From £59 Pen Press £45

new products & demonstration days RECORD DML36SH-Cam Lathe

DML305 Midi Lathe CL3 Cam Lathe CL4 Cam Lathe £899 One only £999 Nova 1624 Lathe Nova DVR-XP Lathe Startrite 401E Bandsaw. One only £209
Large range of machines, tools and accessories in stock and on display

Free Delivery UK Mainland £265 Ltd stock at this price £320 Proedge Proedge Deluxe ery UK Mainland

SCHEPPACH BD7500 Belt/Disc Sander BTS 800 6" x 4" Belt / Disc Sander OSM100 Bobbin Sander £139 £140 BG200al Bench Grinder £99 DMT 450 Lathe DMS 1100 Variable Speed Lathe £220 £520 Tiger 2000S Sharpening System Tiger 5 Sharpening System Mt60Universal Work Bench £119 £75

<u>Trend</u> Airshield Pro EXOTIC WOODS
Banskia Nuts
Range of Exotic woods & pen blanks in stock £5.00

**VISIT OUR WOOD STORE TO SEE OUR LARGE STOCK OF TIMBER** 

JOIN OUR WOOD DISCOUNT CLUB 25% OFF ALL BRITISH TURNING/CARVING TIMBERS WHEN SPENDING £20 FOR ONLY £15 PER YEAR.

# Gabor Lacko and Patricia Spero – Autumn Flowers

**Gabor Lacko and Patricia Spero** share this pierced and textured piece with us, which is inspired by the colours of autumn

he work we produce is mostly based on our love of nature and many of our turnings are enhanced with leaves, flowers or trees. We try to capture the colours and shapes of the seasons and this vase represents the amazing colours of autumn. It was inspired by the intertwined branches of a twisted willow (Salix spp.), which had already lost its leaves and the bright orange and yellow flowers of the open chrysanthemums, which were still flowering late into October. We feel this combination of bare branches and bright flowers represents the gradual transition into the bleakness of winter.

The vase was turned from sycamore (*Acer pseudoplatanus*), which we find lends itself very well to carving and colouring. It is 305 × 200mm and was cut out, carved and textured using an electric carving tool and the air driven high-speed Presto handpiece, followed by many hours of hand sanding. Unlike our smaller pierced bowls, which are two-dimensional, we aimed to make this vase three-dimensional and as natural as possible.

Once the turned vase was 'finished' we had our canvas on which to draw the flowers, branches and twigs to design a satisfactory picture. This was probably the most difficult part of making 'Autumn Flowers'.

When we had our design finalised on the vase, we used a MicroPro Master Carver with a burr to cut away the bits which formed no part of the vase. This obviously gave us the flowers and branches with rough, square edges. The next stage was finalising the contours of the flowers, shaping and stippling the petals using an NSK Presto, whereas shaping the twigs was less mechanical. The square edges were removed with a power carver but the final shape was produced by hours and hours of hand sanding, using 10mm-wide abrasive strips. To make it more sculptural, we also added a few extra flowers, which were made and finished separately, which we attached to the outside of the vase.

The last operation was colouring the flowers with a combination of felt-tip pens, watercolours and wood stains. The stems were left in their natural state and the vase was finished with several coats of a clear varnish.



'Autumn Leaves', sycamore (*Acer* pseudoplatanus), 305 × 200mm

Email: gaborlacko@msn.com; patricia.spero@btinternet.com



# **Superb Precision**Axminster Clubman Chucks

Manufactured from a single billet of stainless steel, these chucks are made by us in Axminster using the latest CNC production techniques. This material allows closer tolerances during the manufacturing process as the chuck body no longer needs electro-plating which can vary in thickness. This newly designed body improves concentricity and minimises vibration during use.



 $\textbf{Axminster} \cdot \textbf{Basingstoke} \cdot \textbf{High Wycombe} \cdot \textbf{Nuneaton} \cdot \textbf{Sittingbourne} \cdot \textbf{Warrington}$ 

# Turnaster

from Robert Sorby

a cut above...

The Robert Sorby TurnMaster is the first tool in the world to combine three cutting edge technologies in one flexible tool.

Cutters are available in tungsten carbide, titanium nitride (TiN) and high speed steel (HSS) providing unsurpassed range to woodturners at every level.

An unprecedented collection of parts and cutters make it the most versatile and value added single tool concept on the market today.

Among its many features TurnMaster incorporates a unique\* interchangeable cutter head that locks into three positions allowing for simple scraping and shear scraping options.

### Benefits:

- All cutters interchangeable with one tool
- Indexable cutting head for shear scraping
- Interchangeable cutter head no need to buy whole new tool
- Flat underside for stability
- High tensile torx screw / key for quick cutter release

\*Patent pending

TurnMaster... the tool with the vision to educate and inspire



# CARBIDE: TITANIUM: HSS

Proudly made in Sheffield, England

Robert Sorby, Athol Road, Sheffield S8 OPA, England. Tel: +44 114 225 0700 Fax: +44 114 225 0710

Web site: www.robert-sorby.co.uk

ere to find out more



