RICHARD FINDLEY EXPLORES CARVING ON TURNED WORK

Woodturning

THE WORLD'S LEADING [illegible]NE FOR W[illegible]

How to design and turn your own novelty nutcrackers

Guide to using wax effectively

An introduction to critique for woodturners

Turning your own tool handles

How to guide: turn this fun robot

Turn a table lamp from reclaimed oak

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

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

Both machines benefit from the following improvements:

New Tailstock Design

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

Larger Bed Bars

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

Heavier Duty Toolrest

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

Hollow Spindle

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

M33 Thread Supported by Sealed for Life Bearings

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

More Compact Size and Optional Bed Bar Extensions

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

Shown with optional lathe stand. Prices valid until 28.2.2017.

CL3 Professional 5 Speed Lathe
12100

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

CL4 Professional Electronic Variable Speed Lathe
12201

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

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PHOTOGRAPH BY GMC/ANTHONY BAILEY

Prime time working

As we move into autumn, there is an increase in workshop activity. During the summer months the garden, holidays and children all get a look in as to how time is spent and the workshop seems to get left behind for a while. No bad thing in my opinion, it is a case of recharging batteries and then being ready to go and have some fun when time allows. Traditionally, September through to Easter is the prime time for workshop activity and every indicator we have shows this to be the case for the majority of turners and, to a greater or lesser extent, other woodworkers too. From the increase in emails and pictures sent, this trend is carrying on.

I am in the process of reorganising my workshop – it is well on the way and it will get a new coat of paint too. Read into that having a full clear out and starting again – apart from the electrics. It is long overdue and it is not fit for me to be able to work in sensibly. It is interesting to find that an initial layout of a workshop is OK for a while, but there are aspects that come to light later on where things don't work well or one cannot do some things or at times safely. These of course necessitate a rethink.

I must admit to having done more general woodworking of late than turning, namely DIY, refits, adjustments and such like. That said, rest assured I have done lots of turning demo wise and article wise, but for pure pleasure not so much. But maybe with the re-organisation it will coincide with more time. I am smiling at that as home repairs are more likely for some time yet, a garden 'summer house' or something similar, is being talked about and I have been told it cannot be a new workshop. Actually, a summer house, pergola, something to sit under would be nice – when and what to do and how to pay for it is another matter.

I long ago realised that there are no formulae for getting things right, only to make the best use of one's time as possible to satisfy as many people and do as many things as need to be done, so one can also get the things one would like to do in the mix too. Tell me if you have found the perfect solution to that as I have not.

On a different note, there are various shows on at the moment, take a look at the news pages to see if there are any that you might like to go to. There is always excitement when I go to a show, usually because I never quite know what will be there or who and what I will see. I always meet someone new and see something I have not seen before. But then I have always been curious about seeing and learning things. Let me know what you have been making and how you get on at any shows and events you attend.

Have fun,
Mark

markb@thegmcgroup.com

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

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October 2016

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Ian Woodford
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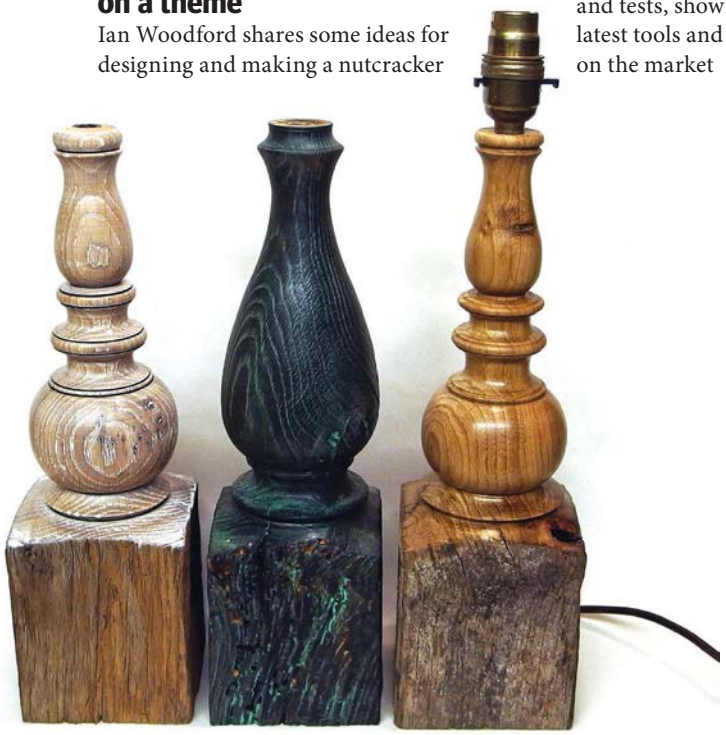
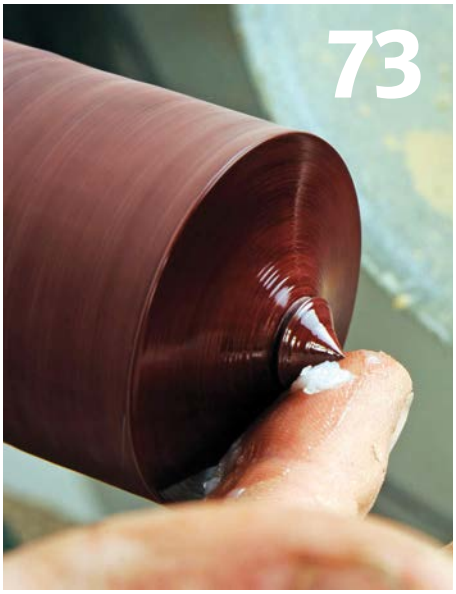


Kit & Tools

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

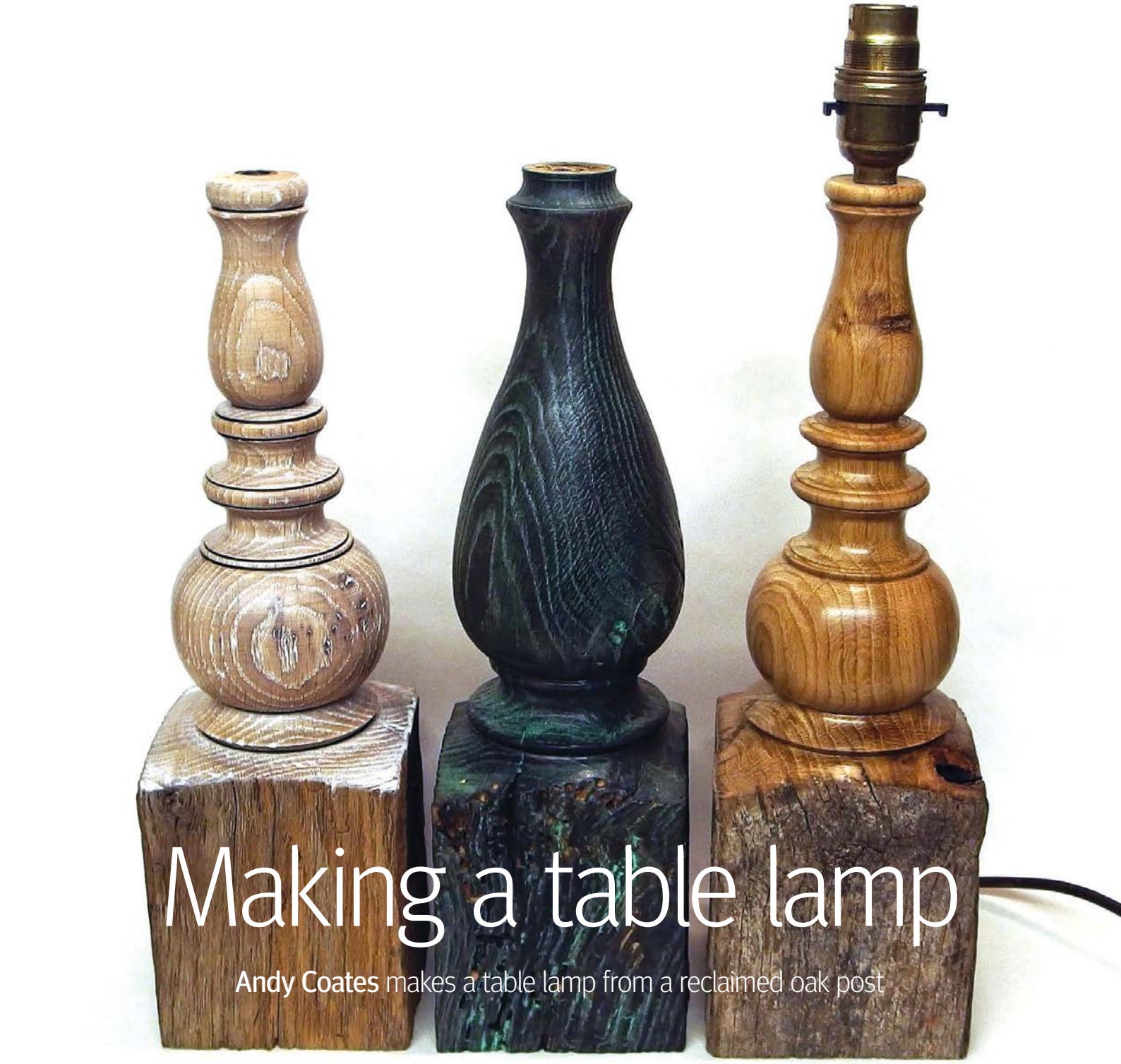


Features

Community

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.



Making a table lamp

Andy Coates makes a table lamp from a reclaimed oak post

ANDY COATES

Andy is on the Register of Professional Turners (RPT). He is a professional woodturner and has a workshop and gallery in Suffolk. He mostly makes one-off pieces, but like any jobbing woodturner, is just as likely to be found doing small batch runs, antique restorations or any number of strange commissions. He also demonstrates and teaches turning.

cobwebcrafts@btinternet.com
www.cobwebcrafts.co.uk

Every once in a while somebody will give you some wood that has already been used for something else. Such gifted wood usually looks quite cheesy, but despite its appearance there probably is something you can do to re-use it. However, reclaimed wood requires a little more thought and care prior to use. The first thing I always look for is evidence of nails, screws or staples. These will play havoc with your carefully ground cutting edges, and might even present a danger to you; so if you have a small metal detector, the type used by electricians for finding stud partitions, then make use of it and scan the wood prior to selection. Should you find any evidence of metal you will need to decide if you should reject the piece of wood or try to clear the buried metal.

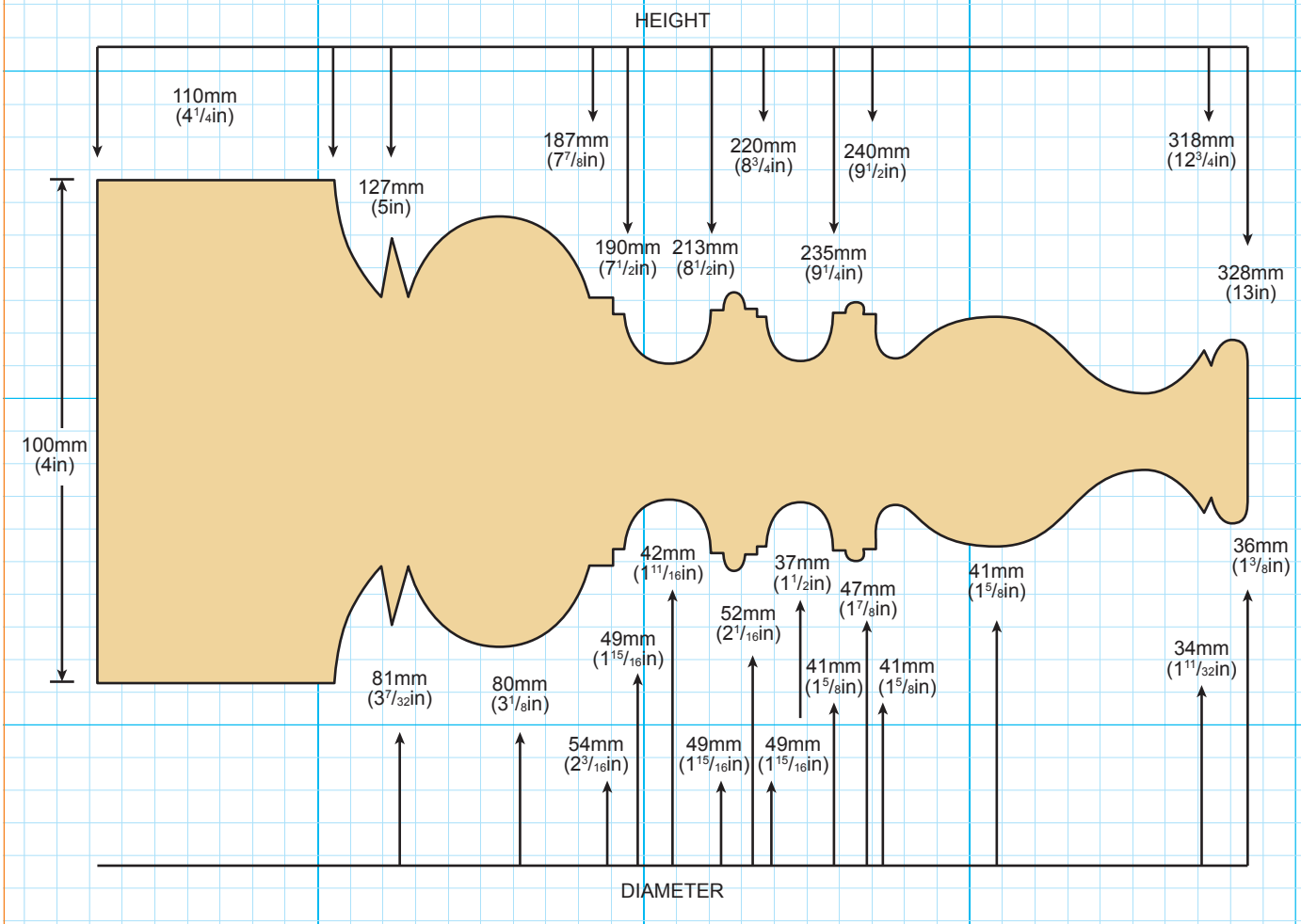
I am using an old oak fence post for the project, but some of it was a little rotten, so I have included options for dealing with the less solid sections. The main thing to be wary of is using wood that is so flawed it could cause an accident. Common sense should prevail at all times. Is it worth the risk?

The process I use to make table lamps is slightly different to the norm, but it is one I find effective and simple. You may decide to take a more traditional approach.

PLANS AND EQUIPMENT

EQUIPMENT USED

- 10mm long-ground bowl gouge
- 10mm long-ground spindle gouge
- 10mm parting and beading tool
- 2mm parting tool
- Long hole boring auger
- Hollow tail centre for long hole boring
- Strip of Formica
- Abrasives 180–400 grits
- Cellulose sealer
- Hard wax stick
- Various surface finishes
- PPE: Facemask, gloves, dust mask/respirator



SPECIALIST EQUIPMENT

LEFT: Three standard head and tailstock drives which can be useful
MIDDLE TOP: Chucks with 55–75mm internal jaws and large grip 90mm+ jaws
RIGHT: Standard long hole boring centres
BOTTOM: Shell auger, twist auger, twist auger

If you do not have a hollow tailstock, or the required long hole boring kit and associated tail centres, the central bore can be achieved using standard auger bits in a brace. It may require you to bore from each end to the middle, but with care it is an achievable job. Bore the blank prior to turning and mount on the resulting holes to ensure concentricity.

1 Before you begin work, take a look at your blank. Is there an orientation you prefer? On this piece there was a patch of burr that I felt would look better on the base section rather than turned away. This meant that I had to initially mount the blank with this area at the headstock end

2 Mark the centres as accurately as the blank allows and mount between centres. The first task is to cut a 90mm tenon to suit the gripper jaws. If you do not have gripper jaws ensure the tenon is perfectly formed for your jaw type

3 When you have a lamp with a square base it is vital that the end is perfectly flat across the corners. If there is a slight concavity here there will be a gap in the middle of the baseline, and if convex the base will not sit flat. This is a good opportunity to practise getting it right

4 With the tenon turned remount the blank by the tenon. Ensure a tight hold. Clean up the opposite end, making sure it is flat as noted above. Mark a 75mm diameter. Begin to hollow a recess using a 10mm beading tool. Take light cuts to reduce vibration. Cut to 20–25mm depth. Mark the centre with a small V cut

5 Reverse the blank and mount in expansion mode in to the recess on your C jaws. Do not over tighten as this can cause stress fractures and result in an accident. Mount the deep hole tailstock centre DHTC. If it is not a revolving DHTC, apply some paste wax. Wind the quill in but do not over tighten

6 I used the 5/16in shell auger to bore the hole through the blank. Lathe speed should be no more than 300rpm. Carefully feed the auger in and use light force to pick up the cut. Cut 20mm of depth and then withdraw the auger to clear the shavings before returning to cut. Take it slowly, working methodically, until the auger breaches the base. You will feel it break through

7 Having completed the bore, swap the DHTC for a revolving cone centre and bring it in to the hole for support. Now assess your blank and decide where you want the base to be. Either 50/50 or 1/3–2/3 works well. As I intend to leave a square section I decided on 1/3–2/3 to hopefully retain some of the burr feature in the base

8 Any turning that requires a square section leaving can prove difficult for a novice; the required cut is initially only cutting four corners and tool control is paramount. My preferred approach is to use the long point of the skew. Use a high entry point and pivot the tool into the cut at the marked point on the blank. Note the masking tape on the toolrest to provide a visual reference for where the cut needs to be. Cut down to achieve a round section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9 Use a spindle roughing gouge to reduce the blank to a cylinder. Take light cuts and remember, this is reclaimed wood; it may contain splits and cracks you cannot see. Be aware of tell-tale sounds that might indicate a loose section of wood that requires the lathe to be stopped and the fault assessed

10 Begin shaping at the headstock end, as these will be the wider sections. If your skew work at the pommel left a poor surface finish, you can use a long-ground gouge to clean up the surface, rubbing the bevel fully to ensure good control. Mark off your first feature and begin to turn, taking care not to catch your hand on the four corners of the square section


11


12

11 The first section is a ball shape sitting on a double V cut flange. The skew chisel is ideal for this, but do bring the toolrest in as close as possible to ensure total tool control. Use the long point, cutting on the tip, and take care at the base of the cuts where the possibility of cutting two surfaces is to be avoided

12 Reduce the next sections to cylinders suitable for the features to be turned. Mark out in pencil and turn the series of features. These are all standard spindle turning features, fillets, coves, swell and beads. Use the opportunity to practise with both skew and spindle gouges. Keep features crisp and regular


13


14

13 Having completed the stem section clean off the end flat with the tip of the skew chisel. Depending on which type of fitting you have, the next part may be different. The brass fittings I use have a small brass stub that needs to be inset. Take the diameter and carefully cut a recess to suit it in to the end of the stem

14 Cut a shallow chamfer on the top edge of the recess to provide an area for epoxy glue to pool. When ready for final fitting use two-part epoxy resin, and take care not to let any of it get on to the threads that will take the lamp holder. Use light tailstock pressure in the end of the stub to ensure it is true. Allow epoxy to fully cure


15


16

15 Before fitting the stub the lamp needs to be abraded, sealed and finished. This is personal choice, and here I have gone for a traditional wax finish. Be wary of the square corners when abrading. A flexible sanding pad can help reduce risk of knocking fingertips

16 Having fitted the brass stub you can now build the lamp. If you are giving the lamp as a gift or selling it, there are specific regulations you need to adhere to. Check with local trading standards. At the very least all components must be CE marked, unmodified, cable strain relief fitted, and competently fitted. You might consider having it PAT tested for compliance

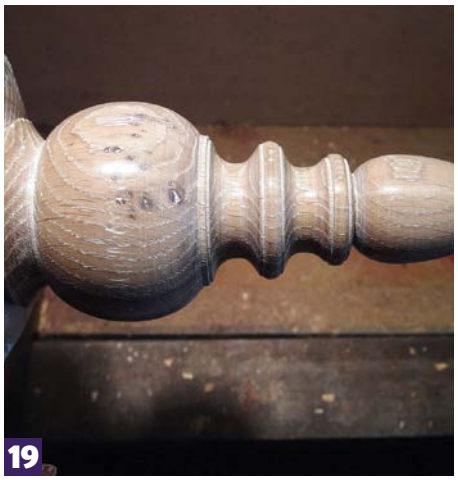
17 Having now turned your lamp from reclaimed wood, you might decide to try something new with it. There are lots of options, but here are a few to whet your appetite. I made a copy of the original to work on. It was abraded to 240 grit to leave the grain quite open to accept the wax


17

18 There are a range of different coloured waxes available you might try; patinating, liming, coloured. All can provide interest and add value. I chose to use liming wax on the second lamp. Rub the wax well in to the grain, working along the grain as you go. Apply liberally and allow the wax to fully cure. The process here is the same regardless of which wax you choose


18

19 Once cured, buff off the excess wax with clean white paper towel. If you have over-spill on the square area you can remove this with a wire brush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20 On a spare blank I tried a few other approaches. If your blank has soft areas due to rot you can often remove these by using a bristle brush on a drill. Working either with the grain, or against it, can produce different visual and textural effects. Play about with it and see which appeals to you


20

21 If you prefer a 'natural' look then brushing out the softer grain can result in a pleasing surface that responds well to a simple oil finish. I prefer hard wax oil for such surfaces as it gives a pleasing sheen and is a durable finish


21

22 Another approach is to scorch the surface using a blow torch. Allow to cool down and then use a bronze brush to remove the loose carbon. This can then be oiled or waxed, and will produce a lovely effect, or the surface can then be wire brushed to drag out the softer growth, creating a two-tone effect


22

23 Another option is to use a rotary wire brush on the surfaces. Wire brushes can be brutal – especially on flesh! – so take care and ensure you wear eye and lung protection. With wire brushes I prefer to work with the grain, removing softer growth and rot as deeply as possible. Once again your choice from here is personal: simple oil or wax, or why not try decorative wax


23

24 One of my favourite decorative waxes is verdigris wax. I love the colour, and it really seems to suit 'character' wood. Having applied liberally and allowed to cure I then buff out with a large drill polishing brush. Once the verdigris wax is cured and buffed you could wipe black patinating wax over the surface, getting down in to the grain, and wipe off quickly removing the top layer only. This creates a pleasing two-tone effect


24

25 Your final lamp should end up looking something like this

25

FINISHING OPTIONS

Surface textured with synthetic bristle brush on corded drill. Over-sprayed with red acrylic gloss, allowed to cure and then abraded back to produce contrast

Surface scorched, textured with synthetic bristle brush on a corded drill, verdigris wax applied and buff with polishing brush on a corded drill

Surface textured with wire brush on a corded drill, liming wax applied and buffed off with a nylon pad

Surface textured with wire brush on a corded drill and hard-wax oil applied, left to cure then buffed with a lint-free cloth

NOTES

- If your reclaimed blank has nails, screws or staples embedded, you must ensure they are all removed prior to turning. Not only could they constitute a safety hazard for you and your tools while turning, but any stray pieces of metal could cause the electrical cable to become damaged in use, and this would constitute a very serious safety hazard.
- Every country, and sometimes different regions within a country, has specific regulations for the manufacture and sale of electrical items. Do ensure you make yourself aware of these regulations and comply with them fully. The onus is entirely on you to do so. Failure to comply could not only result in injury to a friend or customer, but could also result in the confiscation of stock, civil charges, or compensation claims.
- Using reclaimed stock: reclaimed wood can present safety and health issues that 'clean' wood might not. Chemicals may well have been used on, or entered, the wood. There may be inclusions such as nails or barbed wire. There may be splits, cracks, fissures or even parasitic infestations in the wood. ●

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CDP202B	450 / 16	£159.98	£191.98
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*DIY

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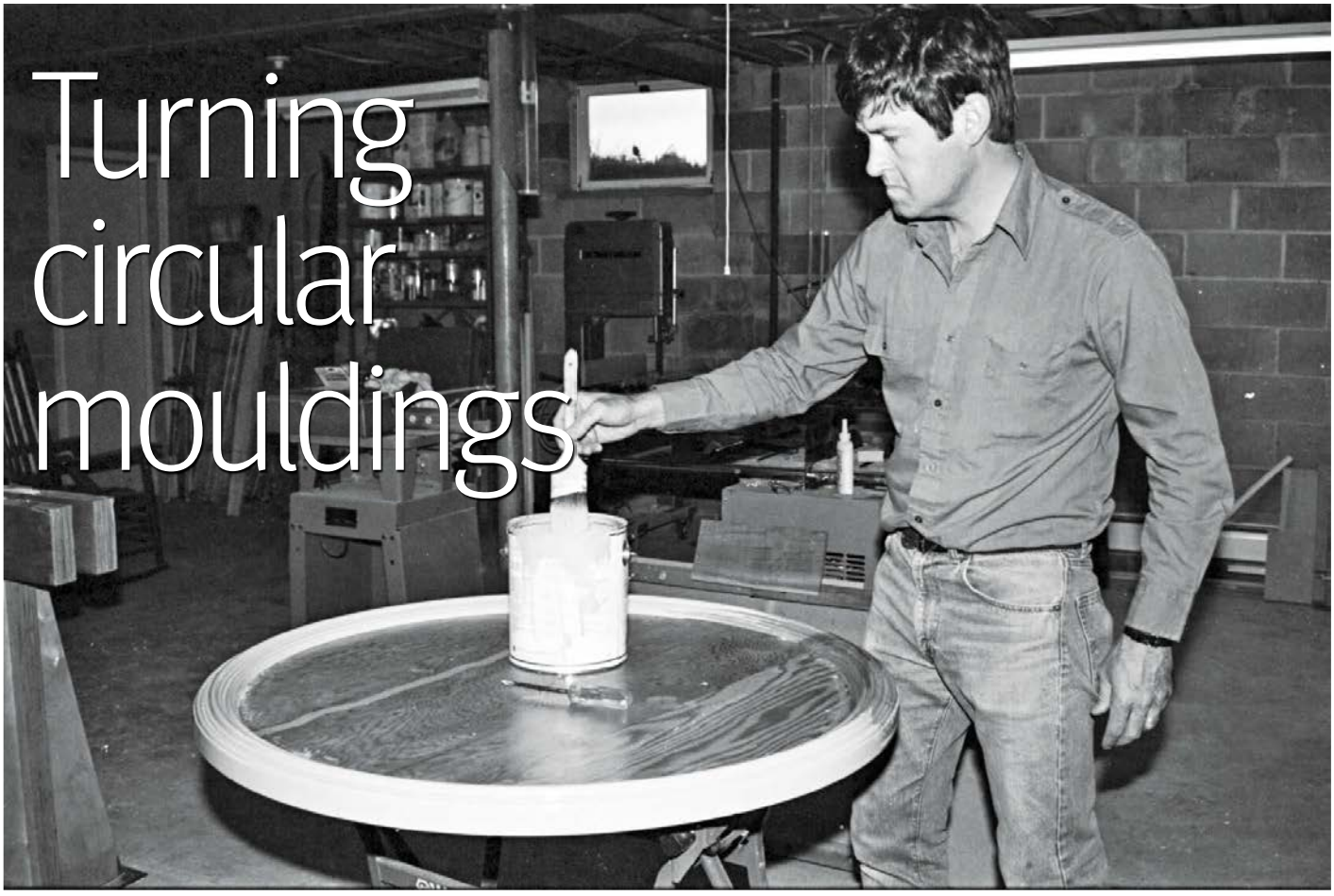
Turning circular mouldings



PHOTOGRAPHS BY ERNIE CONOVER

Without paper, putty, paint and glue, **Ernie Conover** asks what would a poor turner do?

ERNIE CONOVER

Ernie Conover is best known for teaching and writing about woodturning, as well as designing and marketing the Conover lathe.

erconover@conoverworkshops.com

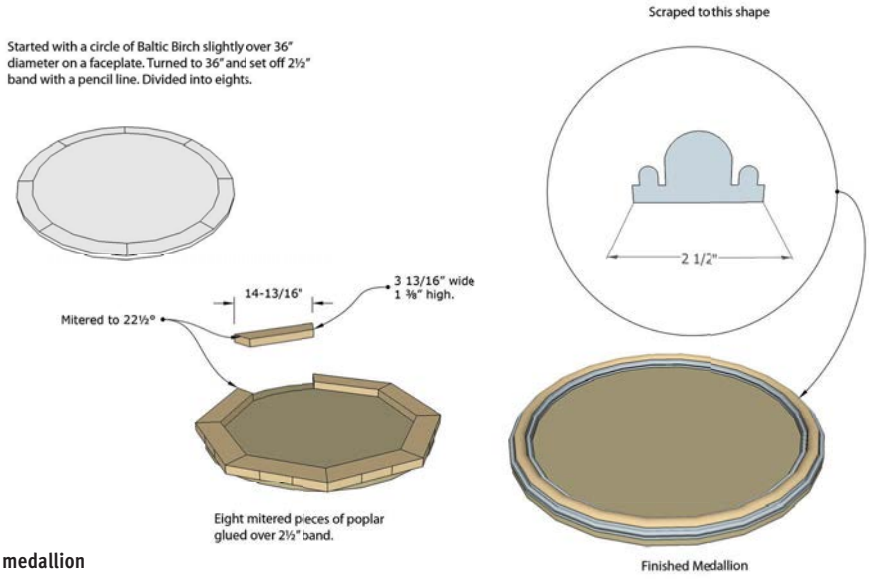
Over the years I have had a number of occasions to turn circular mouldings for windows of the same shape and one ceiling piece to set off a chandelier, (a medallion). This was common turned work in the past but today point-to-point routing machines and moulded plastic accomplish such work at a cheaper price.

The chandelier

The first time I attempted this type of work was in the late 1980s, after my wife Susan and I purchased an antique chandelier from the nearby town of Mesopotamia, where it had previously graced the town Grange since the 1870s. The Grange was an American political movement started by farmers in 1867 to promote state ownership of grain elevators and uniform railroad freight rates for grain. While farmers were a third of the population in Victorian times, they are only 2% of the population today, so many Granges are reverting to their townships and being sold or pulled down.

We purchased the chandelier for our dining room, which we were decorating in an 1840s Chinese motif because of a rosewood (*Dalbergia latifolia*) table I had purchased in Hong Kong. We have built legends around some of the rooms in our house, the dining room being one; a clipper ship captain running to the Orient in the 1840s owned it. This allowed the rest of the furniture in the room to be Empire, which we have always liked, inherited and collected.

The chandelier was gilded cast iron and probably made in France. Four arms protruded from a central shaft and each had



Ceiling medallion

a basket to hold an oil lamp. I had to shorten the central shaft to use it in our dining room. The threads were metric, which along with the fixture's style of ornamentation and manufacture, led me to feel strongly that it is French. Perusing books on architecture we concluded that we needed a medallion above the table to showcase our purchase. In the past these were often made on site by the plasterer. Today they are pre-cast whole from polymers, which you simply affix to the drywall.

To a man with a hammer every problem is solved with a nail. To this man the solution was solved with a lathe – turn it. After all, I was manufacturing and marketing a lathe and looking for examples of things you could do with it. We decided upon a 915mm outside diameter for our medallion, with a simple 63mm wide by 35mm deep astragal moulding at the periphery. The illustration shows how I glued the moulding on a circle of plywood.

Of course, 915mm was much bigger than the 405mm swing of a Conover lathe so it needed to be turned outboard. The trouble was I did not have an outboard stanchion support and did not relish laying out the cash to buy one. Therefore, I bolted a large piece of timber on a Black & Decker Workmate to hold the banjo and its toolrest. Sitting on the workmate added enough mass to make scrapping possible. Two of my children thought helping me by adding mass to the lathe was great fun. The turning area was really a very narrow band so not much moving of the toolrest was necessary.

Primer nicely hides any defects filled by glue and putty. The client will even thank you for priming the work. Since this work is for myself I applied the final coat on the astragal moulding. The field would be painted eggshell white.

One of the main reasons we bought the chandelier was that it had never been electrified and we vowed to keep it that way. Too many oil lamps have been electrified which usually entails drilling the original parts. Still, it is nice to be able to flip a switch, if for nothing but setting or clearing the table. I solved both problems by turning a central wood fixture that the chandelier canopy attaches to, that also better showcased our antique. I was able to scrape a U-shaped trepan around the top into which I fit a florescent ring light. I housed the ballast transformer in a metal box buried in the joists in the ceiling above. The result was a nice indirect light at the flip of a switch, that is reflected downward by the white field of the medallion.

The closet window

My friend Dick Kawalek, who is the architect who designed the 2000 bedroom addition to our house, tried to incorporate a signature of a round window in his designs. He shoehorned one in our closet. It was a standard offering from Anderson, but the moulding that came with it was pathetic. To a man with a lathe…

I had pushed all the moulding for the addition myself in a 5 HP shaper so knew exactly what I wanted. This job had an outside diameter of 1015mm requiring 10 sections in the glue up. Also the plywood was simply a chuck because brown craft paper was interposed in the glue joint between the plywood disc and the work. I also had a Powermatic 3520 B that, with the bed extension on its lower setting, could swing the 1015mm. I have since made several of these types of mouldings for clients. For one window I can usually beat the price of the setup for doing the job on collars in a shaper or a point-to-point routing machine.

The nice thing about architectural work is that it is usually paint grade. The client appreciates a coat of primer on the work, which additionally camouflages wood filler, or even worse, bondo. All this leads me back around (which we turners continually do) to my original premise. Without paper, putty, paint and glue what would the poor turner do? ●

The turned medallion in place, in Ernie's home

Ernie turning the ceiling medallion, with a little help from his children. Note: this is a very old image and current safety thoughts would go against doing this now

The circular window in Ernie's closet

Community news

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

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

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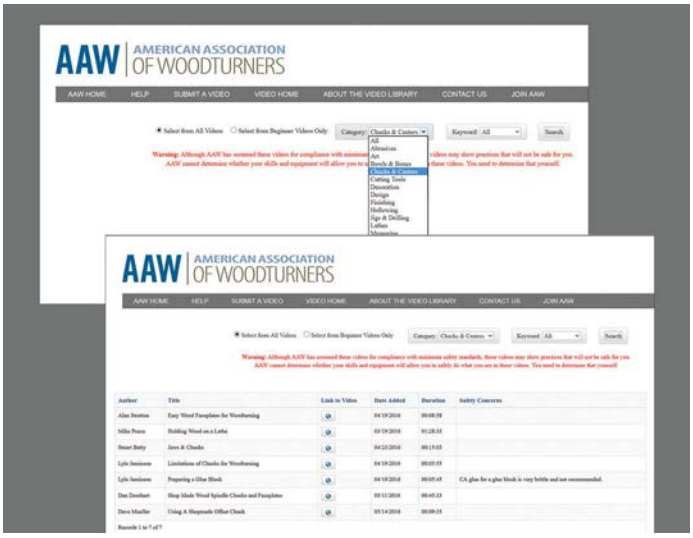


The American Association of Woodturners website

PHOTOGRAPH BY ANDI WOLFE

Benoit Averly turning at the AAW Symposium 2016

More than ever before, woodturners are relying on the Internet for instructional materials – especially videos. But the number of videos available online can be overwhelming and their quality and attention to safety may be lacking.

To help woodturners find high-quality online videos, the American Association of Woodturners (AAW) has recently unveiled its newest service, AAW Video Source. The new tool offers access to useful woodturning videos that have been pre-screened for quality educational content, production value and safety techniques. With AAW Video Source, turners of all skill levels can learn faster and have more time to spend turning by avoiding junk videos and online clutter.

AAW Video Source makes searching for online woodturning videos a snap. You can access the tool via AAW's website, woodturner.org, under the 'videos' tab. Searching for videos on a specific topic requires a few seconds and three mouse clicks. You can sort the results by title, author, duration and date added to the list, as well as select only videos for beginners.

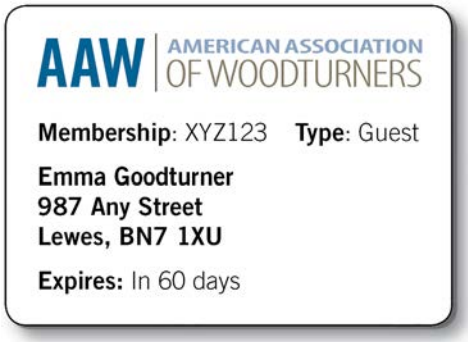
AAW Video Source will continue to grow and you can help. Once you are on AAW Video Source, click 'submit a video' to recommend your favourites for inclusion. Videos submitted will be reviewed for quality and safety, and if approved, added. If you would like detailed instructions on how to use this new tool, view the demonstration video available under the 'help' tab on the AAW Video Source page.

Be our guest: Free 60-day membership

The AAW has set up a free Guest membership that offers limited access to member resources, for a full 60-days. This membership enables visitors to sample the publications and services offered by the AAW. Included with the Guest membership is a selection of articles from *American Woodturner* and *Woodturning FUNdamentals*, as well as access to the *Safety Guidebook for Woodturners*, AAW connects search tool, AAW Video Source, woodturning calendar, tips library, resource directory, *Keep Turning* newsletter, and more.

To set up a Guest membership, go to AAW's website, woodturner.org. Under the 'membership' tab, select 'join' from the drop down list. Follow the instructions. After you have set up your account, you will receive an email requesting confirmation to activate your membership. You can activate your new Guest membership by clicking the link in the confirmation email. Now you're ready to dive in to samples of AAW member publications and services on the Guest Member Resources page. To access this page, go to AAW's website, woodturner.org, and log in with your username and password. Under the 'membership' tab, select 'Guest member resources' from the drop down list.

The AAW strives to deliver the publications and services that its members need to grow and thrive in the areas of woodturning that are important to them. The AAW hopes that by providing a glimpse of what it has to offer, Guests will decide to upgrade to a full-fledged membership to gain access to AAW's complete portfolio of benefits. For a complete list of member benefits, go to woodturner.org. Under the 'membership' tab, select 'portfolio of Member Benefits' from the drop down list.



NEW BOSS AT TOOL COMPANY

PHOTOGRAPH COURTESY OF AXMINSTER TOOLS & MACHINERY

Alan Styles

It's all change at the Devon-based family company, Axminster Tools & Machinery with Alan Styles having been recently appointed to the top job. The eldest son of Bernie and Marjorie Styles, Alan has now taken over from his uncle Ian Styles as Managing Director and will head up the company which has over 290 employees and eight retail stores.

Alan is well qualified to take on this role having attained a degree in Business and Finance and an MBA, and has been with the company since leaving university almost 20 years ago. During this period he has worked in virtually every area including customer service, retail and servicing, gaining a detailed understanding of the business. He has held the positions of Customer Services Manager, Office Manager, Purchasing Director and most recently Sales Director, and has seen the company grow rapidly since he joined. Alan says: "Gaining the relevant qualifications, experience and more importantly learning from colleagues, customers and other industries over the years, has given me good grounding for this business, so I believe I am very engaged with the function and operation of the company. In my role as a director I have also had the opportunity to visit many of our customers which I feel has given me a real insight to our market."

Alan paid tribute to his uncle saying: "I feel humbled at taking on the role from Ian and would like to thank him for his dedication to it. I am passionate about our company, our products, customers, processes and people and I am strongly committed to its success in the future. Ian will still be very much involved at Board level, as he has been at the helm for a very long time, holds a wealth of knowledge and, along with my family and other Board members, has made this company what it is today."

Alan went on to say: "We do have a strong name for customer values, knowledge and availability. This is backed up by a strong ethos of service and honesty which is supported by the loyal and enthusiastic people I work with. Our processes and operation are impressive, but there's always room for improvement so I will be working with all areas to see what improvements we can make on an ongoing basis."

Axminster Tools & Machinery was founded in 1972 by Alan's grandfather Ron Styles and the late Graham Brown, and first traded from retail premises in Axminster town centre. More than 40 years on, the company is now a successful multi-million pound business with just under 300 employees, a strong online presence, a string of ever-increasing retail outlets and a field sales force selling to prestigious organisations such as Pinewood Studios, Ascot Racecourse, The National Trust and Sunseeker (yachts).

Contact: Axminster Tools & Machinery
Web: www.axminster.co.uk


25th anniversary giveaway

To celebrate 25 years of Woodturning magazine, a string of the industry's top names are giving away items from their product ranges. This month, we have six revolving live centre and cone centre sets from Robust Woodturning Tools to give away

WORTH £660

WOODTURNING 291 GIVEAWAY PRIZES

In issue 291, we featured a Robust Woodturning Tools giveaway.

We are pleased to announce that the winners of the Robust Woodturning Tools are:

Richard Hurst
Peter H. Sanders
Andy Willmore
Kenny Regenthal
John Montgomery
Sarah Barwick

Wizardry in Wood

Beautiful and extraordinary original works by over 70 of the world's greatest contemporary woodturners. Held every four years, these vibrant exhibitions, with the Company's biennial turning competitions, play a significant role in promoting outstanding woodturning and introducing turners to a wider public.

When: 12–15 October, 2016
Where: Carpenters' Hall, Throgmorton Avenue, London EC2N 2JJ
Web: www.wizardryinwood.com

ToolPost Autumn Open House

Demonstrating at the ToolPost's Autumn Open House will be the 'Irish Rovers', Seamus Cassidy and Robert O'Connor (returning by popular demand), plus Chris West showing how to make pepper-salt-condiment mills, and Martin Adomat, woodturning instructor from Germany who will be demonstrating the Killinger lathes, as distributed by The ToolPost.

When: 5–6 November, 2016
Where: Unit 7, Hawksworth, Southmead Industrial Park, Didcot, Oxfordshire OX11 7HR
Web: www.toolpost.co.uk

The Tool Show '16

The Tool Show is the UK's number one branded hand, power tools and machinery event. Entry and parking are free. Big brands such as Bosch, Irwin, Festool and Makita will be exhibiting their latest products, as well as offering free masterclasses.

When: 7–9 October, 2016
Where: Kempton Park Racecourse, Staines Road East, Sunbury on Thames TW16 5AQ
Web: www.thetoolshow.com

Handmade at Kew

Following the sell-out event in 2015, Handmade in Britain will return to Kew Gardens for the second edition of Handmade at Kew. This four-day international contemporary craft event offers visitors the opportunity to meet and buy from over 200 extraordinary designer-makers working across all disciplines including: ceramics, jewellery, fashion and textiles, glass, paper, furniture, metalwork, sculpture and interior accessories. The event is housed in an elegant pavilion next to Kew Palace and tickets to the show include full entry to Kew Gardens.

When: 6–9 October, 2016
Where: Kew Gardens, Kew, Richmond, Surrey TW9 3AE
Web: www.handmadeinbritain.co.uk/shows/kew/about

ALLAN BATTY

PHOTOGRAPHS BY MIKE MAHONEY

Allan turning a long spindle

Allan instructs a masterclass

Born 25 February, 1939, died 10 July, 2016

The woodturning world lost a great ambassador, teacher, historian and master craftsman Allan Batty on 10 July, 2016.

In the early 1990s Dale Nish was in search of the finest woodturners in the world to teach techniques at the Utah Woodturning Symposium. This naturally led him to northern England where the English have had a 2000-year written history of woodturning and a relatively thriving woodturning trade. Among the many great craftsmen in the UK, Dale was introduced to Allan Batty. Allan lived in Yorkshire as a young man and fell into the woodturning trade through generations of family ties. Allan showed Dale many techniques that Dale had read about and even witnessed before but never with the skill that Allan exhibited. Allan performed those techniques effortlessly and in short order. Allan made his way to the US and quickly became a favourite at the Utah Symposium, the AAW and many other regional events. Allan not only showed his tools and techniques but also explained historically how and why they were used. His legacy of sharing and skill will live on among those of us who were fortunate enough to absorb a few of the techniques Allan spent his lifetime honing.

Allan is survived by his two daughters Angela and Lorraine and son Stuart, who many of you know apprenticed under his dad's tutelage.

Mike Mahoney

We are saddened to hear of our friend Allan Batty's passing. Allan was a great family friend and incredibly talented woodturner. Dale (Nish) often commented to me that Allan was the most versatile and complete woodturner he ever met in his lifetime. Based on seeing Allan demonstrate for many years, I would tend to agree.

Allan's superb ability and skill set that he freely shared throughout the years here at Craft Supplies USA, was greatly appreciated by the many who were fortunate to attend his workshops. In addition to his special talent and teaching ability, Allan's impeccable sense of humour, whether telling jokes or sharing humorous experiences and observations from his life as a woodturner, were always appreciated and cherished by those lucky enough to hear them. It seems there was never a moment when Allan wasn't entertaining and teaching at the same time. Allan's unique ability to do both made every day in the workshop so enjoyable for us all.

We will miss Allan along with the many other great woodturners who helped to shape woodturning into what it is today. Our thoughts and prayers go out to the entire Batty family at this time.

Darrel Nish, Craft Supplies USA

I was deeply saddened to hear of Allan's passing recently. I always loved watching Allan demonstrate. His skills – honed over many years of turning – were evident for all to see and one could not help admire his effortless skill when he turned. He was without doubt a master of turning and there was always something to learn from him and I relished hearing his wonderful stories.

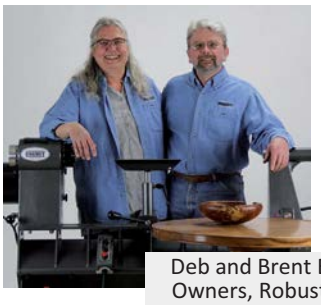
He always took time to talk to people and I found that he was always willing to share techniques, ideas and help people. He had a wicked sense of humour that was very mischievous! I had the pleasure of demonstrating alongside him on more than one occasion, but at one event, after taking a break from a demo slot and getting back to the lathe, there was a strip of 24 grit abrasive sitting on the lathe for me. I looked up and noticed Allan was looking at me with that mischievous grin of his that immediately told me who placed the abrasive there. Boy did I get some ribbing that demo. All good fun and much appreciated by all who were there.

Allan has certainly inspired many turners around the world and we are all richer for knowing him and learning from him.

Mark Baker

Seen Too Many LATHE Pics?

Here are the faces behind the products



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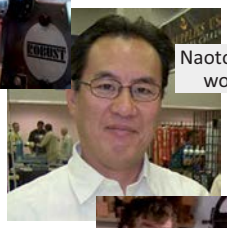

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Steven Kennard (Canada)
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Steve Fulgoni
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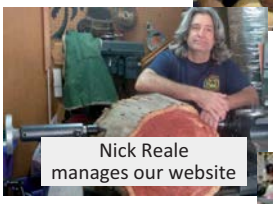

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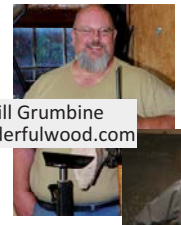

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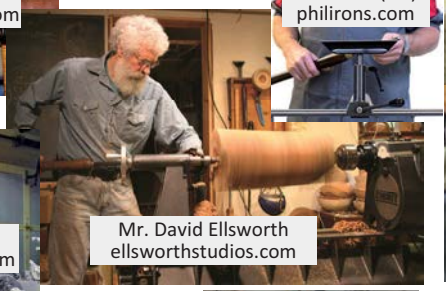

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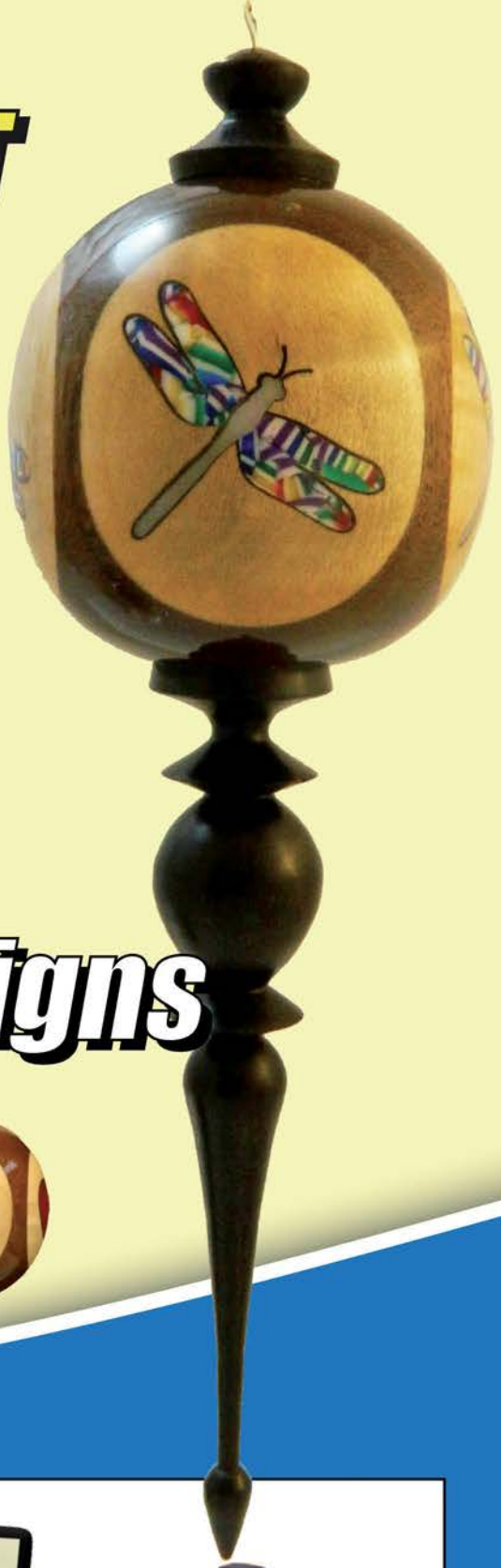

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Letter carving onto turned work

This month, **Richard Findley** turns his hand to letter carving on turned work for the first time

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. He 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
Follow on Instagram: richard_findley

Before I discovered woodturning I dabbled with carving for a while. My grandad left me some carving tools, so I have a selection of good quality gouges and chisels, to which I added when I felt the need. I was pretty good at carving and I made a number of decorative relief patterns and I even attempted a face study in the round, but found it frustrating how long larger items took to make. Turning was naturally a revelation, being able to make things in a fraction of the time it had taken me to carve them. I got hooked on turning and the rest, as they say, is history.

Today, carved decoration or textures on turned work is quite common, often mixed with colour, and some of the effects that can be achieved are quite amazing. My main interest in turning lies in furniture and likewise my carving was often to add a small decorative detail or pattern to furniture-type work. One thing I have never done is letter carving and yet it lends itself to being combined with turned work really well. So what should I make?

The plan

Carved lettering is often seen on signage, but that doesn't lend itself well to turning. An inscription on the edge of a bowl makes a lovely gift for weddings, christenings and the like, but I have no such events coming up so can't think of a suitable project in this style. I like to keep things simple for these articles, particularly as it is the first time I'll be doing lettering, so a simple project with minimal carving would suit best. It occured to me that a chopping board, or more precisely a bread board with the word 'bread' carved into it would make a perfect first letter carving project, and for once I get to make something that can be used at home. That sounds like a win-win situation if ever there was one!

The theory

Turning a board will be simple enough, I've made plenty of these before. As far as the carving goes I will need to sort some text, transfer it to the timber in an orderly fashion, then carve out the letters. While I haven't ever done letter carving, I have several carving books that look at the techniques involved, so I can research it and, using my grandad's old tools and my previous carving experience, I will carve out the letters. It seems fairly straightforward but things like this often have a habit of being more complex than they first appear. We shall see!

My reference material for the carving project: *Essential Woodcarving Techniques* by Dick Onians and *Carving on Turning* by Chris Pye

PHOTOGRAPHS BY RICHARD FINDLEY

TURNING THE BOARD

My 'canvas' will be a piece of European steamed beech (*Fagus sylvatica*) which I have managed to source in an ideal width for this job. Steamed beech tends to be a slightly pink colour, rather than the much more pale 'white' beech, but is generally easier to work and more stable in use due to the steaming process. With the disc marked out, I roughly sketch on the word 'BREAD' to see the kind of scale I want for my lettering. Around 30mm tall feels about right, so that's roughly what I shall aim for. I cut the disc on the bandsaw and mount it between my chuck and live centre to true up the base and form a chucking spigot. With the board held in the chuck I true it up and round over the edge, then flatten off the show face onto which I will carve my lettering. Importantly, I don't want to sand it at this stage as grit left in the timber from sanding does the razor-sharp edge of carving tools no good at all, so I flatten the face with a skew used as a negative rake scraper, checking for flatness with a steel ruler and leave it at that for now. Where the curve of the edge meets the flat face I mark a pencil line to show where the bottom of the letters will sit, then another line for the top of the lettering.

With the board marked out I sketch the lettering roughly the size I want and find a suitable font size


The disc is cut out on the bandsaw


Turning the curved edge profile


Flattening the face with a skew used as a negative rake scraper


Checking it is flat with a steel ruler


Marking out the position for the lettering

The letters

I call a friend of mine for a brief chat, he has considerably more letter carving experience than myself and he suggested using a Roman font such as the standard 'Times New Roman' found on most word processors. Ideally I would be able to lay the text out in a curve on the computer to suit the board but unfortunately I can't do that on the program I use, so print the word out in outline, trying out a few different font sizes to find something around the 30mm height I am thinking about. I find that a font size of 130 produces a 32mm tall letter, so print it and to work out a good way to lay it out. The two books I have both go into detail about the spacing of the letters. Some letters naturally stand closer together while others leave wider gaps. This is difficult enough to space out in a straight line, although using the computer does simplify this a lot, but on a curve this could potentially cause me a headache. I decide the best thing to do is cut out the letters and place them on the board and see what it looks like. With 'bread' being a five letter word it is obvious that the 'E' should sit centrally and that I should space the letters from there.

Another consideration, which I will touch on again later, is grain direction. Like any turning I want to present the grain running either directly up and down, or straight across the board, but which would look best for the lettering? Slightly unsure, I decide to take my lead from carved lettering that I have seen before, which is usually on a rectangular sign with the grain running across the board, acting like lined paper to the text. So I will have the grain running across the board with the lettering curving around the bottom.

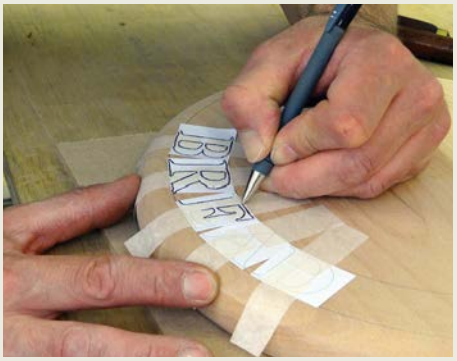
I set the 'E' in the centre and place the 'R' and the 'A', followed by the 'B' and the 'D'. All I can really go on is the look and feel of the lettering, so cut small strips of masking tape and fix the letters in place between the marked lines and position so they look right. Without prior experience with letter carving, I can't say for certain that what I think looks right here is going to look right on the end result, the only thing I can do is to give it a go and see how it looks.

Having cut out the letters I position them around the edge of the board. Once happy, I fix them in place with masking tape

TRANSFERRING THE TEXT

My friend suggested I use carbon paper under the text to easily transfer the lettering to the wood, but despite searching high and low, I can't find the packet of carbon paper I had from my carving days, so I will have to be creative! I first just try drawing over the lines with a Biro, pressing hard to create an impression on the wood. In a softer wood this would have worked but beech is known for being tough, so unsurprisingly this doesn't work. Instead I make 'home-made carbon paper' by colouring in the back of each letter with pencil and then drawing over the text again. This time it works and transfers a faint line to the board. It is an easy job to darken this with a pencil once the paper letters are removed. I keep the letters stuck to a clear part of the board for reference during the carving.

Home-made carbon paper



Transferring the letters

Letters transferred and darkened with a pencil

Holding the work

When I first started carving I made a simple box with removable trays to store my tools. The box also doubles as a work bench, raising the working level to a more comfortable height from that of a standard woodworking bench. The top, being hinged, can also be used to hold work at an angle. For this project I decide that working flat would be fine, so I screw some battens to the surface and cut some wedges to hold the board fast, while still being easy to reposition as I work around the curve of the board. The breadboard still has its chucking spigot on the back at this stage so I cut four pieces of 6mm MDF to pack out the underside and ensure it sits flat and level while I'm working on it.

Fixing the breadboard in place with wedges

Carving cuts

There are two main cuts used in carving: 'stab' cuts and 'slicing' cuts. Stab sounds more aggressive than it actually is, but does describe the action pretty well, simply pushing down into the wood, either to define a shape, to finish a cut or to work down from the top to the bottom of a detail. Stab cuts can be done with a mallet or just by driving the tool with the hand. It is important to realise that smaller tools might not be suitable for driving with a mallet.

Slicing cuts shape around curves and often run up to a stab cut. The slicing cuts can be made by pushing the tool straight through the wood or by rolling the gouge to create curved shapes. I am fairly familiar with these cuts, if a little rusty, but it will be interesting to see how exactly they are used to form the lettering.

FIRST CUTS

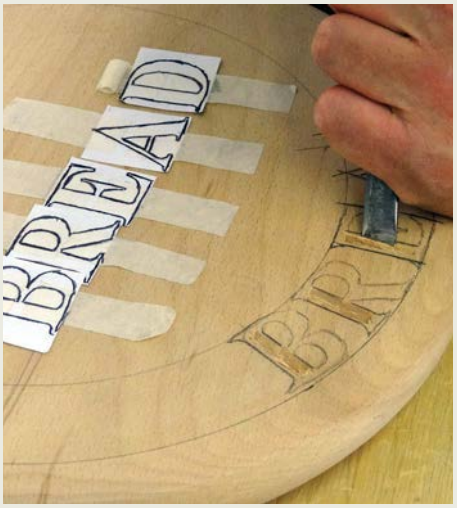
My books suggest the place to start is on the straight legs of the letters, by using a stab cut in the centre of the line with a chisel. I begin with my standard 25mm bevel edged chisel and use a mallet to make the mark. From this point I use a straight carving chisel in a stabbing cut, to form a V-shaped cut, gradually working from the initial stab cut from the chisel, back to the pencil lines at the edges. The first is a little untidy but I soon get to grips with it as I progress through the letters.

With Roman fonts there is a lovely detail at the ends of each letter, known as the serif. The serif adds real character to the lettering and looks quite complex, but actually, having done one, I soon get used to the series of cuts required and find myself enjoying cutting them. I use a Pfeil number 3F gouge which I added to my grandad's kit and has become one of my favourite carving tools, to slice the curve into the serif, then a small straight carving chisel to slice up to it and then emphasise the curve.

On several occasions during the carving process I struggle to visualise how different parts of the lettering intersect with each other, but am pleasantly surprised to find that, as I work, these details just seem to work themselves out. As I make each cut it becomes clear how details, like how the line across the 'A' sits and how the leg of the 'R', meets the body of the letter.

'E' is mostly straight cuts but with six serif details which makes it a joy to carve using just two sizes of straight chisel and the Pfeil number 3F. According to different sources, some will tell you that for lettering you need a huge array of tools, others say you will need just a carefully selected few. I am pleasantly surprised how few I need. There are clearly a few gaps in my carving tool kit but I find that I can use the tools I have to produce the necessary curves.

The first cut is with a mallet and bevel edged chisel

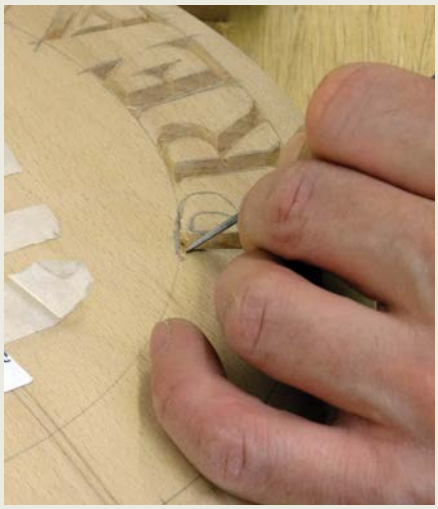


Using a straight carving chisel in a stab cut to widen the V shape

Some of the straight sections cut

Beginning the serif with a curved gouge 'upside down', slicing with a twist of the gouge

Using a small straight chisel to meet the curve of the serif



Using a tiny straight chisel to blend the two cuts together

CARVING GOUGE NUMBERING SYSTEMS

UK-made tools use what is known as the London Pattern to number the different sweeps of each gouge. On Continental Europe, Pfeil use a similar but slightly different numbering system. The beauty of these patterns is that a No.5 gouge will have the same curve, whether it is 5mm wide or 25mm wide. The problem is the slight differences in the two systems can be confusing, for example a No.3 from the London pattern is a straight chisel, but a No.3 by Pfeil is a slightly curved tool. Charts of both patterns are available.

TOOLS I USED

I used:

- Pfeil – No.3, 6mm European pattern
- Straight carving chisels – No.3, 4mm and 12mm London pattern
- Straight fishtail chisel – No.54, 12mm
- Carving gouge – No.4, 12mm

The tools I used to carve the lettering

Cutting the curves

I hesitate to say I have the straight sections and serifs 'mastered', but they are certainly beginning to flow somewhat better now, which makes them perfect preparation for cutting the curves of the 'B', 'R' and the 'D'. As with the straight cuts I make a stab cut in the centre. I find it interesting how a curve is formed, starting straight and gradually increasing in curve to the centre. The pictures show how two differently curved tools used at different parts of a letter, match the curve perfectly.

As with the straight cuts I work toward the central stab cut to form the V shape. I mostly use the Pfeil number 3F, but also another more curved gouge in places. The beauty of a carving gouge is that it can be used the 'right' way up to produce concave shapes, or 'upside down' to form convex curves, which is perfect for the curves in the 'B', 'R' and 'D'. It is interesting and challenging in equal measure, how the curves on each of these letters means that they are wider on the curve than where they meet the rest of the letter, but by following my marking out this poses no more issue to me than making sure I cut to my lines and form a pleasant and even V shape.

This shows how two different curved gouges make up the shape of the D

Stab cuts with a curved gouge

Making my way around the curve with more stab cuts

GRAIN DIRECTION

When carving you have to work in curves and straight lines that travel with and across the grain. Sharp tools make this possible but you still need to be aware of the grain direction because even with razor-sharp tools, it is possible to pull and tear the grain if you work against the grain. Woodworking in any form requires you to pay attention to the grain direction, carving is no different. You can see how working around the curve of a letter requires close attention to grain and cuts in several directions to successfully make clean cuts.

It is because of this grain issue that 'V'-tools aren't recommended for letter carving. I have often heard people say that they use them, which seems to make sense as they naturally create the desired V-shaped profile. The problem is that when working on a curve, one side of the blade will be working with the grain, but the other against it, which is a bad combination and will generally lead to tear out. Working down and around each side with stabbing and slicing cuts gives the cleanest result.

The importance of grain direction

V tools are not really suitable for letter carving

SHARP TOOLS

Woodturners are always going on about keeping tools sharp, but the sharp we use in turning is nothing compared to the sharp required in carving. The two can't really be compared as turners usually work straight from the grinder. Carvers will use fine stones and then highly polish their edges on strops. I made my strops from chamois leather, which was the only leather I could get my hands on at the time, and fixed it to pieces of board and dowels of different sizes to polish both the bevel and the inside of the flutes. On the leather I use a mix of Autosol polishing paste and Vaseline, which keeps the Autosol from drying out. Strictly speaking the chamois is too soft for this and risks rounding over the edges of the tools, but I have never had a problem and find the strops are still working well today, several years after making them.

Checking my work

After I have gone over the lettering a few times and feel relatively happy with the result I take it over to the workshop door and take a look under natural light, which is quite unforgiving of poor tool work. This highlights a few areas that need a little more attention with sharp tools before I can return the board to the lathe, tidy it up and sand to a finish.

Checking the breadboard in natural light

Finishing

With the board remounted in the lathe I can sand. I want to maintain the crispness of the lettering so sand using a cork block to ensure I don't inadvertently round over the edges. I am really pleased with how sanding actually makes the whole thing look so much neater. During the carving the pencil marks become smudged and the area does tend to look a little dirty but sanding on the lathe brings it back to a clean surface. It isn't possible to sand the actual lettering, hence the importance of cutting cleanly with very sharp tools.

The final step is to oil the board with food safe oil. This will just seal and protect the board but also has the effect of highlighting the lettering, which I like a lot. It would be possible to paint the lettering or even gild it to add emphasis but as this is an item which will be used and washed there seems little point.

Sanding the board with abrasive wrapped around a cork block

Fresh off the lathe

Making my way around the curve with more stab cuts

Conclusion

Considering it is my first attempt at letter carving and how rusty I am at the associated techniques, I am very pleased with the end result. There is plenty of room for improvement but overall I am happy. I realised that the lettering is quite bold, which I like, but next time I might try a more slender style of lettering. Of course it would be possible to really go to town with the carved decoration, adding various patterns of wheat sheaves or whatever, but I wanted to focus on the lettering. I really enjoyed carving again and while I am probably not up to professional standards yet, it is something I would like to do more of. ●

The finished breadboard in use

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Robot

Colwin Way looks to the future of turning with this fun project

Over the past few months we've done some sizeable and intricate projects but last month started a spell of more lighthearted projects of children's toys. This, and the next couple of months follow a similar theme, keeping to the fun and make-you-smile projects, leaving behind the more serious fare just for the moment. I do spend most of my days, weekends and evenings either teaching woodturning or demonstrating it and like everyone else I sometimes need a break from the day job of analysing bowl gouges and skew chisels and make a nonsense piece. Now, I'm a massive sci-fi fan and have been since I was a kid and I thought it might be a giggle this month to use this fascination with space and the future to inspire our turning project – a robot.

I thought it woud be fun to go right back to the old tin toy robots of yesteryear and be inspired through your thoughts on space travel and turn a multi-piece figure just for fun. Warning! Warning! These figures are pure indulgence on my behalf and have no use or functionality apart from paper weights, bookends or doorstops, but they are great fun and make you feel good, if not a little nostalgic. This piece is not intended to be a child's toy, but if you are making it for children extra thought concerning construction methods, materials and finishes used must be looked at. If you sell children's toys then a whole raft of legislation must be followed to comply with the law on toys.

Here is a step-by-step guide to making this fun robot project, but also some colouring techniques with paintbrush, airbrush and felt tip. I encourage you to use your imagination to make your own robot.

COLWIN WAY

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

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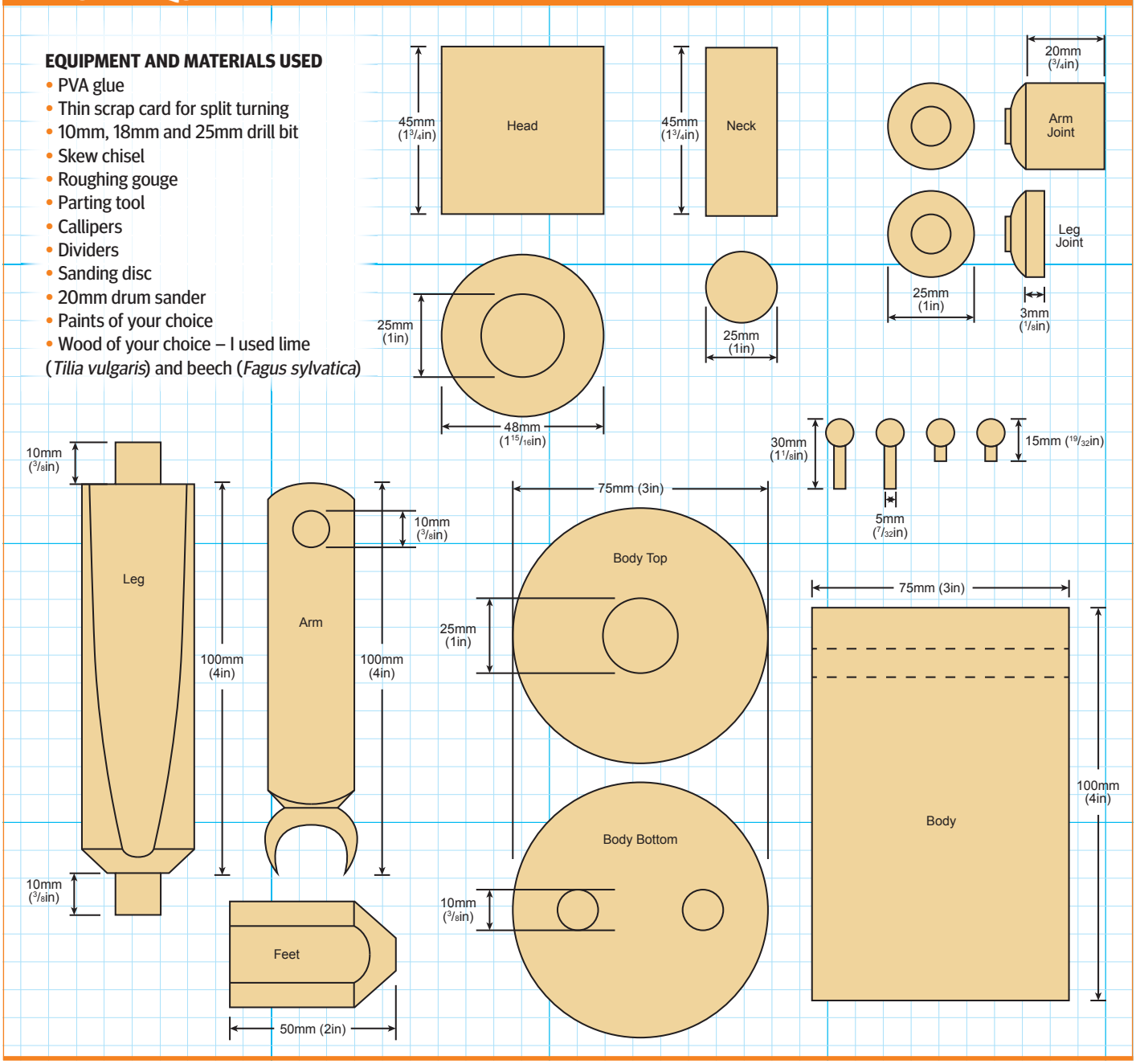
www.axminsterskillcentre.co.uk

PHOTOGRAPHS BY COLWIN WAY

PLANS AND EQUIPMENT

EQUIPMENT AND MATERIALS USED

- PVA glue
- Thin scrap card for split turning
- 10mm, 18mm and 25mm drill bit
- Skew chisel
- Roughing gouge
- Parting tool
- Callipers
- Dividers
- Sanding disc
- 20mm drum sander
- Paints of your choice
- Wood of your choice – I used lime (*Tilia vulgaris*) and beech (*Fagus sylvatica*)



TOY SAFETY

There is much written and legislated for on the subject of toy safety. The European standard is EN 71 and covers all toys for use by children up to the age of 14. This is for those who make and sell toys and they must comply with all the relevant legislation. Homemade toys for personal use are not subject to the legislation, but there is advice and information that we should all follow and be aware of. For example, what is the age of the child the toy is being made for? Are there choke hazards such as those posed by small parts, etc.? If you are using a string cord and small handles, there is a strangulation and choke hazard that should be considered, making it not suitable for children under three years of age. Materials used should be suitable and finishes used should be toy safe. Common sense and a bit of research helps no end. Searching the internet for 'toy safety legislation' will help you find lots of useful information.

Web: www.legislation.gov.uk/uksi/2011/1881/introduction/made
www.toysadvice.co.uk/toy-safety-standards-uk.html

DESIGN & INSPIRATION

We cannot help but be influenced by what we see. I love reading about space travel and, of course, robots and I am also a big movie fan. Inspiration is all around us and what I see obviously has an impact on what I sketch. I make lots of sketches of arms, legs, joints, feet, eyes and so on when trying to come up with something I want to make, but nothing is copied directly.

So, when planning your own robot project, you need to think how practical the design will be; can it be turned? Will you need to integrate carpentry and joinery skills? Are other materials and so on needed? Are there going to be any moving parts? If so, how are they going to be joined to allow them to work as you intend? You also need to start thinking of colour schemes and how you are going to apply the colour to your work. Once you have an idea of what you would like to create, start making a plan of action and concentrate on one design at a time, as it's easy to get sidetracked.

1 Once you have a design in mind scale up your sketch and draw a rough diagram, which will save a lot of time when cutting your blanks to size. Write the measurements on your diagram in preparation for cutting

2 Start by cutting the legs to size. Note: I'm using a couple of push sticks here and the blade guides are down as close as I can get them to the timber, to keep the blade covered and to support the blade while cutting

3 Here are the main components next to the rough scale drawing. Keep the robot angular, which you may find strange for a lathe project but split turning will help with that (especially on the arms and legs)

4 To prepare the arms and legs for turning we need to cut some waste timber, and glue them onto the sides of the blanks. Using PVA glue, sandwich your blanks with these pieces of scrap wood, ensuring you use a layer of thin card between the three pieces, as this is an important step if you hope to separate your blanks again after turning. Allow these blanks 24 hours to dry before attempting to turn

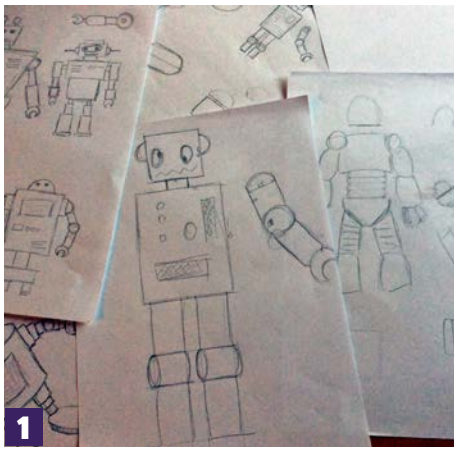
Turning the body

5 While the arms and legs are drying we can turn our attention to the main body and head. Before turning, drill a 25mm hole in the top of the body blank. This will later take a piece of 25mm beech dowel that will act as the neck. The same size hole needs to be drilled into the underside of the head for the same reason. These holes need to be at least 25mm deep so we can use them as centring holes for the tailstock centre

6 Drill the second hole 10mm, this needs to be drilled through the top of the body to take a 10mm dowel, which will be used later to attach the arms and be a moving part, allowing the arms to swing. You can see here that the hole is around the shoulder area and is 12mm down from the top of the body, but central to the length of the blank. This hole needs to be drilled through from one side in one go, so make sure you have a piece of scrap timber underneath to stop breakout from occurring

7 You can see here the previously drilled hole and how I'm using it to centre over the live tailstock centre. I'm using a pro drive to drive the blanks but either a prong drive or friction drive will also work well

8 Rough the blank down to a round and clean up with the skew. In the cleaning up process also tidy the top and bottom and its end grain. It will be difficult to get a good finish here with a parting tool, so a good clean cut with the skew is important. When happy with the shape, sand to 400 grit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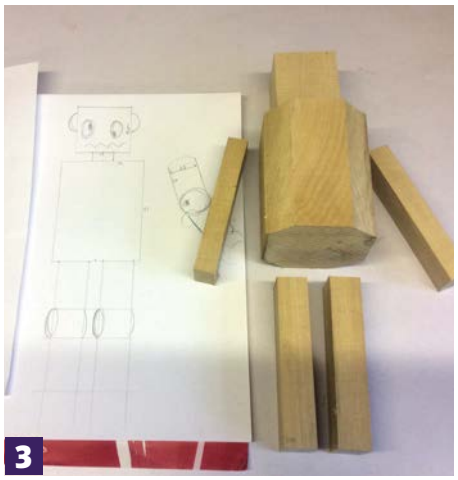
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9 Exactly the same process is being used here on the head, including the sanding on the disc sander. Once the head has been sanded drill a 6mm hole in the top and in the side for two antennae to slot into. See the diagram for exact measurement (but I just put them where I thought they looked best)

Turning the arms and feet

10 Turning the prepared glued blanks for your arms and legs should be no different to normal spindle turning. I do tend to have the lathe speed fairly quick (at around 2000rpm). Always wear a face shield just in case. Use a ring friction drive in the headstock and a tailstock centre with the same profile in the tailstock

11 Take small cuts initially, until the blank is down to a solid round and now it's onto shaping. For the arms cut a fairly simple shape, with a ball on one end to shape the hand later but leave a small amount of waste at both ends to clean off

12 Make the legs from slightly wider blanks and cut a 10mm tenon cut at each end. Use a set of callipers (which are sized off of the drill) to measure the tenon as you cut it. Repeat this tenon on both ends of the blank at 10mm

13 Here you can see the arms and legs turned but not yet split. Splitting is really easy, just lay the blank on a cutting mat or on a piece of scrap wood and use a craft knife to cut down one end of the blank. You will find that the waste timber comes away really easily

14 When it comes to turning the hands, I'd thought for a long time how to do them for the robot but came up with this idea just by sticking to my original drawing. The drawing looked like a circle with a small circle cut out of it so that's exactly what I did. Using an 18mm Forstner bit, drill a hole off-centre toward the front of the hand, giving a crescent shape

15 Now that the arms have been shaped to this point we can start the clean up by rounding off the top of the arm to create a shoulder. The next step is to clean the face of the arms and the legs. To do this take away the sanding table and sand off any remaining paper

16 Once the arms have been sanded, cut them in half across the length and use a small drum sander to sand in a radius to attach an elbow in the form of a 20mm turned disc. You can see the arm after cutting and re-gluing, and also see the 10mm drilled hole, ready to accept the dowel that travels through the body and acts like a pivot for the arms to move. Use epoxy resin to glue the arms together as this is stronger in small areas. Leave to dry over night

17 The legs also have a disc cut and placed halfway down their length. This is to represent the robot's knee joints, this time however, the joint is going to be stuck to the outside of the leg and only 3mm thick

Painting

This is not a toy, but to be safe, my paints need to comply with British standard EN71, and classed as and carry the toy safe symbol, ensuring all paints are suitable and no small parts are accessible should a child use it.

18 So here we have the final body parts turned, split and sanded, including body buttons, antennae, feet, neck and pivot dowel. Turn the feet the same way as the legs, with a 10mm hole drilled to accept the legs

19 Do a quick dry fit to check that everything fits together and it all looks OK

20 To paint the robot, dismantle all the parts and use scrap wood to mount the individual pieces with dowels and clamps. You'll see from this picture also that I've glued some abrasive mesh to the arms, legs and body to give some texture to the finished figure

21 To start with use a red model-making aerosol to do the base layer. Use a puff technique to apply lots of quick bursts of spray instead of a long jet to avoid over spray and running. It's also wise to wear latex gloves if spraying close to your hand (it saves a lot of scrubbing later). I'm doing this outside as the weather was perfect for a change (dry with little wind) but if spraying inside make sure you wear a mask and ventilate the workshop well

22 Once the base layer has been applied and is dry we can start looking at the detail. Start with the eyes, you want to get these crisp and bright so use an airbrush and a template. Make sure no other part of the head is exposed and slowly apply layer over layer. There is a big difference between the airbrush and aerosol; airbrush paint should go on almost dry and the continued airflow should help to dry the paint as it goes on. If you get bleed from using an airbrush it usually means you're putting too much paint on too quickly

23 After the whites of the eyes have been added we can add the black, which I find really easy to do with a black permanent marker. I'm making my robot a slightly malfunctioning robot (something like myself) so I'm giving him some confused eyes

24 Draw a black line with a permanent marker in certain areas of the body, legs, arms and head then use a silver acrylic paint and fine paintbrush to add rivets along these lines


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25 Using the same silver paint, but this time dry brush the silver paint over the sanding mesh detail applied before painting to pick out the detail and give a metal effect. At this point cut another template for the mouth in a zig-zag fashion to add to the malfunctioning appearance of the robot

26 Here we have the robot fully painted and reassembled. My robot's name is Colin and he's a woodturning robot (hence the round hands) from the planet Cocobolo. Unfortunately, Colin's turned far too many bowls which has sent him completely mad and he now only wants to turn toadstools and toilet roll holders

25


26

FINISHING

Finishing is a massive subject and one that causes confusion, so I want to have a closer look at some of the colouring products I use and the reasons why. Whether you agree with colouring wood or not, at some point colour will creep into part of your turning. Here are a few pointers to help you choose the right colour for the job:

- There is a difference between dyes and stains: stains very often include dye or pigment with a binder and need to be shaken or stirred before use. They tend to sit on the surface as opposed to soaking deep into the wood like a dye. Dyes have a different consistency to stains and come pre-mixed or in powder form. The big benefit is that they will soak much further into the timber than a stain, but at the same time are far more transparent in appearance, meaning you can get a more intense colour while keeping the grain of the wood showing through.
- Earth pigments can be added to other substances such as paints, glues, French polish, etc. as a colouring agent they don't disolve but are held in suspension within the solution. They are naturally occurring minerals found in rocks and soils coming in natural colours.
- Creams and waxes are great to create effects but generally aren't used to create solid colour. They are applied, then left to harden and burnished off leaving a residue behind. Great for use on textured surfaces, ageing techniques and restoration.
- Airbrush paints come in a huge range of colours and effects from normal primary colours to neon, metallic and glitter, mainly water-based meaning mixing and cleaning is very easy while drying time is very quick, if not instant. Airbrush is easy to control. I would always recommend running an airbrush through a compressor to keep a constant pressure.
- Aerosols come in a huge range, however more ventilation may be required, though nowadays you can easily get water-based aerosols intended for indoor use, which are completely odourless while still giving strong colour.
- Milk paints have become one of my favourite paints to work with, I love the colours and ease of use. They are obtainable in powder form and have completely natural ingredients, are non-toxic and eco-friendly. You simply mix the powder with water to the consistency and intensity you want and apply. Milk paint can be painted onto bare wood and ages really well (actually improving with age).
- Brush on paints could almost describe any type of paint, however, the ones I use for details and small brush work tend to be of the toy safe variety, such as Rust-oleum which are water-based and extremely quick drying with a one coat consistency.
- If you are making toys for children in the UK, paints sold and labelled as toy safe have to have been tested and passed to conform to the UK toy safety regulations 2011, the British Standards EN71 and is the standard mark to look for when buying in the UK.

Toy safe finishes lacquers, wax oil, paints, brushes and pens

I hope you enjoyed this little bit of woodturning indulgence and have as much fun as I have. Enjoy your turning and designing your robot to suit you and your character. ●

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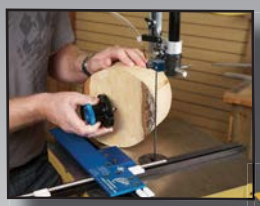

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Designing and making a red top table

Stephen Hogbin makes a bright table for friends

PHOTOGRAPHS BY STEPHEN HOGBIN

STEPHEN HOGBIN

Stephen lives in Ontario and is a world renowned woodturner who is known for his groundbreaking techniques. He exhibits his work in Canada, the USA and beyond. Primarily a studio artist with an inclusive and multidiscipline approach, he is also an occasional curator and author. In 2012 he received the Queen Elizabeth II Diamond Jubilee Medal and more recently has released a new book: *Hogbin on Woodturning*.

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A severe pain in the neck sent me to a good friend who is a massage therapist, Uwe. He suggested a short course of massage to help me, but how could I pay for it? Elaine, who was standing next to us, suggested that a small side table would really help and pay for several massage sessions, as the current table in the room had small surface areas and was too low. The ergonomics were all wrong for Uwe, who is blind and Elaine is physically challenged. After measuring the space between the chairs we agreed a volume of 559mm3 would give the appropriate surface, size and height. The rest was up to me.

We discussed further the table surface and was there a possibility of seeing anything if there was high contrast. Uwe, early in the morning, can see bright red and Elaine, a painter with a keen sense of colour, said a red/blue (rather than a red/yellow) would be best in the space and contrast the yellow/brown of the wood in the room. Painting the top bright red with a lamp casting a bright light, there would be occasions when Uwe would see the surface.

Refreshed from the massage, I drove to my studio workshop thinking about the possibilities. At home I have a side table that I pass on a regular basis but it often gets kicked in the leg. There was a solution I had been imagining, where the legs would tuck in under the top. For a blind person, walking through a room with projections is a nuisance and even dangerous. Uwe negotiates space in a flowing and elegant manner with a total sense of awareness unlike some sighted people. However, this flow is not without its mishaps. So this became another layer in the design process to keep the legs tucked away.

Design

Drawings were made, investigating some earlier ideas for leg-to-top relationships. I have made several tables using a single turning separated into four to make the legs. The leg-to-table top attachment has changed depending if I want to see the leg come through the table top. Should the table have rounded corners or be quite square? Should the table be circular or square? The first sketches were of tables with rounded corners. Less bruising if walked into. The sketch at the centre [Fig 1.] was added later and has a square corner. Uwe said square was preferable, even essential as with a square is easier to find the extent of the top whereas circular table the edge is always moving away. In this case the leg could be turned to have the curve of the leg on the inside or the outside. For a square corner I would need to retain the square blank to have the combination of square at the top and tapering to round. This configuration tucks the foot back under the table and is less likely to be kicked or tripped over.

Back to the sketch book and several square tables are drawn. The leg design with the rippling and flowing lines is typical of what I have done before. However, I did not think this particular line quality was appropriate for the client. This became a decision to be resolved with the wood on the lathe. Usually I would have shown the client a sketch on which they would sign off and agree that was the design with which to proceed. Ideas expressed verbally will create very different notions in the mind and may lead to many misunderstandings. A sketch or model will help get every one on the same page to understand the expectations. Interestingly in this case a verbal agreement, in part, had to be relied upon.

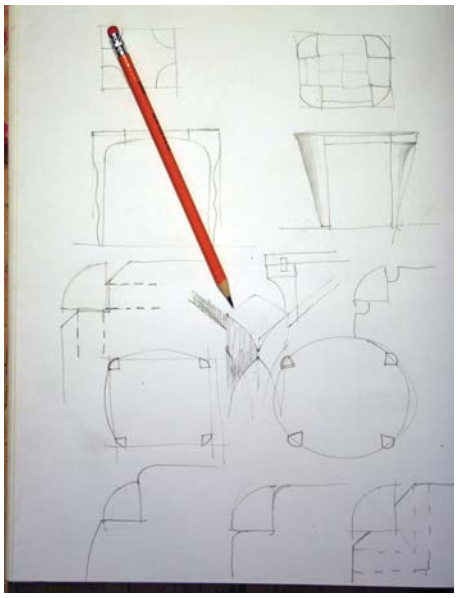

Fig 1.

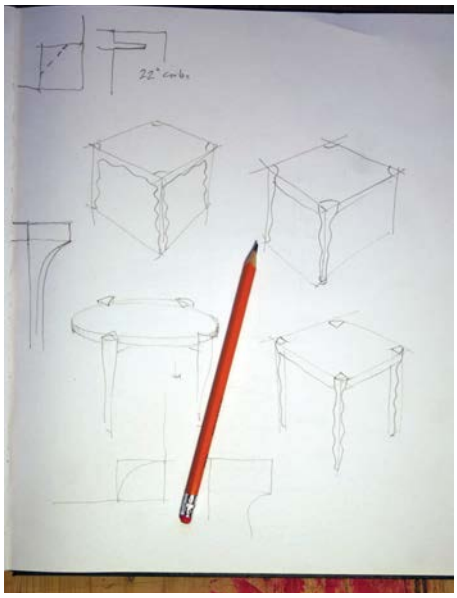

Fig 2.

Materials

Rummaging through my wood supply I came across a remnant of maple (*Acer rubrum*) at 610 x 457 x 70mm. Heavier than needed I still went with the board. To exaggerate the tuck of the legs was a better idea than going with a traditional straight vertical leg, although I was not sure how this would look. I decided to make a quick study that might also replace the table I often kick in the foot. A very wormy piece of American beech (*Fagus grandifolia*) became the material for the quick study.

Turning the legs

1 Standing on the lathe bed are four blocks clamped together and partially turned. At the top and the bottom there are metal band clamps that tighten with a screw driver. First, I machine the blocks and finish the insides. A tiny bead of PVA glue inside and just on the ends will prevent the blocks from shifting if, or when, the chisel catches in the turning. The crescent shapes are taped on, making the square blocks into a circle at the end. Finally, band clamp hold everything together.

2 When the glue has dried the assembly is placed on the lathe. The reason for standing the turning on the lathe bed is to look at the thicknesses, tapers and details. Usually my aesthetic will move towards simplicity of line, but on this occasion I was conscious of the way Uwe will perceive the leg. What would be of most interest? Another objective was to bring the foot back under the table as far as possible. With the large cross section of each leg the foot was 64mm in from the outside edge of the table. While still in a speculative stage the final table does not look pigeon-toed, rather the weight of the top appears poised.

The form of the leg moved in steps towards a traditional looking leg. I seldom work with eclectic objects where styles are combined, but that is what the piece seemed to demand. With four legs in one the thickness of a single leg is deceptive. It is really difficult to see as the leg appears too heavy and it's easy to end up tapering until the leg is too slim when separated. This is where prototyping comes in useful.

3 I then unscrew and remove the band clamp and crescent-shaped wood. Using a broad chisel and mallet I split apart the four legs. This is when I wished less PVA glue had been used. Only a tiny bead 3mm will spread out and give 6mm glued surface. Sometimes the wood will splinter and stick to the wrong side so some waste is expected.

PLAYING WITH THE LEG DESIGN

Time to play and see what other shapes might come from the four legs when put together in different combinations. They are just shapes but some of them suggest possibilities for a pedestal table, balusters for a stairs or a partially open screen. At any point in the process I am looking for other new ideas for me to take forward in another project.

1

Construction

1 I leave the ends of the table legs square for as long as possible. If the inside was not finished there is a chance to belt sand the surface. A quarter round is difficult to hold for any operation but with the square end it is a pleasure to work on all surfaces. Sometimes the edge of the blank may chip when turning, scratches from the sanding may show up in a different light, whatever the problem the remedy is made so much easier with the square end.

2 The table top is made from maple (*Acer saccharum*) faced plywood. Two pieces are needed and I had in stock 19mm (although thinner could have been used). The plywood is edged with a contrasting darker solid wood. I was expecting to paint the edge the same colour as the top. Later it occured to me that with partial vision seeing the edge and top could give the illusion of a wider top. On reflection it should have been a light wood, but it's not an aesthetic tragedy and does offer a contrast to the leg. The second sheet needs to be smaller than the top, but more on this later. Standing the legs on the top I mark out where the legs will pass through the table top.


2

3 The legs will pass through the top projecting up and not be flush with the table top. When Uwe feels for the edge of the table he wants to know where the corner is. The projection leaves an uneven surface but also signals the end of the top. The sample plywood shape offered up indicates clearly what will happen.


3

4 I mark out the shape of the top. For this table leg the top is domed, retaining some of the sharp edges which are more interesting to touch. The shaping is done with a grinder and 80 grit paper, rasps, mill files and abrasive papers.


4

5 The second sheet of plywood develops the joinery. The leg is slotted and the plywood slides in as the tenon. The slot is cut on the table saw using a V block. I mark out where the slot is to be cut, raise the saw blade to the right height and make successive cuts to the thickness of the plywood.


5

6 The table can now be clamped and stood up to see how it will look. With the wood strips working as spacers, I am now ready to clamp with glue. The extra bar clamp is coaxing a joint closed as the band clamps were not placing the pressure in quite the right place. On the bench is the other 'sample' table that precedes, it is a much smaller table, simpler leg and the one on which I can afford to make mistakes.


6

7 With sound advice I was taught to only glue two pieces of wood together at a time. In this situation I was clamping six pieces simultaneously. It can be a recipe for failure, so the dry clamping is absolutely essential. With modern glues it's a bit easier when the glue does not set for an hour and takes 24 hours to cure. I used a polyurethane construction adhesive used in the building trades. Usually I use PVA or alternatively epoxy depending on the circumstances. I had run out of epoxy and PVA would set up too quickly. By all means use every clamp in the workshop but don't over clamp and squeeze all the glue out. A firm pressure is all that's needed. The joints properly cut will fit snugly. Over clamping bruises the wood. Wood will always win if abused. The other thing I was taught is that wood has a bigger ego than the maker!


7

8 The plywood is edged with solid wood. Basically, at this point the table is made, apart from the finishing. Flip the table over and there you have it. I called the client to see if they would like to check out the table in the space. I was confident all was well.

The assessment

The table stood in the middle of the room. Uwe leant down and felt across the top and legs. His fingers searched out every detail. I observed the legs were heavy but the table stood lightly on the floor. Elaine commented that the shapes are feminine but really strong. Uwe enjoyed the shapes going over the legs again. Yes, he said feminine but strong.

Then, Elaine said a drawer would be really nice for the remote and a few other things. Normally I would not take the table to the client at this point. It's asking for additions, changes, developments, alterations and so on. Uwe thought it was not necessary and the table was really finished. Such lovely people, it's easier to see how to make it work. With some clients I would say we are finished at this point. We bantered back and forth about birthdays coming up and how many massages is a drawer worth. The table was placed between the chairs, edges touched, protruding legs rubbed and we agreed it worked well and the drawer would really complete the table.

ADDING A DRAWER

Back in the studio I had a short board of sugar maple big enough to make the drawer. A side rail would be fixed between the legs. The board was 25mm thick and I could make the rail from one piece. The board was notched around the leg using the bandsaw. The drawer runner cut out on the table saw. The back rail was mortised to fit the drawer runner. The drawer sides will be dovetailed into the drawer front, and...

... the drawer base will be 3mm plywood. I have drawn a black line showing the connection in the photograph. Black walnut (*Juglans nigra*) acts as a drawer guide which is held in place with a brass screw and can be replaced if the drawer develops a sloppy fit. The ash (*Fraxinus* spp.) drawer pull, in the shape of an egg, is a large, easily found and felt detail projecting from the underside of the drawer. It is fixed, glued and screwed from the inside with a brass screw.

A feature that does not show is the divider 305mm back from the front. It creates a space right at the back of the drawer. It's useful to hide things, like passports and cheque books. The total length of the drawer is 508mm. With 305mm hanging out, there is still 203mm left to take any weight that may fall on it. Another feature is the enlarged reveal surrounding the drawer. It's a detail easily felt and leaves lots of space for any wood movement and air flow. The table top was primed with white paint. The colour 'cherry tart' I had in stock is a red blue, close to magenta.

I brushed it on as a texture, thick and thin, light and dark with full saturation and brightness. Close to a quilted look which I thought Elaine the painter would enjoy. The contrasts were so dazzling I scumbled on another 'bright red' that unified the surface and gave the look greater depth. Earlier we had agreed that as liquids do get spilt the surface should be a hard wearing urethane. In total seven coats of paint, some scumbling and others full thickness were applied. When the surface is scratched the quilted brushed design will help incorporate the marks. The red top table should mature well and last for a very long time.

The final table

ALTERNATIVE DESIGN

The smaller table turned out quite well – I love the colour. Not for every home but we live with lots of colour. The other point of the smaller table was to test the joinery. I had not made a table using the plywood to tenon into the leg. Prototypes, a sample table, the quick study, may well have qualities that are as good as the finished piece. It's like the artist's sketch – it has a vitality and immediacy that the finished piece may lose from excessive control from over thinking the idea. The sketch feels closer to the moment of imagining and creativity. Carrying that energy forward may look like sloppy workmanship so it takes a trained eye to see and understand those differences. With this small side table there were no revelations just a small detail change in the leg I want to explore further. It will be kept around for a while to help digest the experiences and evaluate where to go next with the idea. ●

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Community letters

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

Encouragement from Neil

Mark,
I just opened my *Woodturning* magazine, delivered this morning, and was so devastated to read of Neil Scobie's passing. In February last year the magazine printed his article on developing linked doughnuts. I was so impressed that I emailed Neil and asked him how on earth he did it. He very kindly emailed back a 'how-to' sheet and encouraged me to have a go.

I'm glad to say I did have a go and sent him the photo. He seemed to think I had done OK, he knew I was not a professional turner, just having fun, and he was again full of encouragement. Since that time I have copied a couple of items from his articles. I regard him as one of the best people and I really am so sorry that he is no longer with us.

Andrew Norris

PHOTOGRAPH BY ANDREW NORRIS

Inspired by the work of Neil Scobie

Spiders in the workshop!

Hello Mark,
Here is a question that I bet you have not been asked before! My workshop has far too many spiders for my comfort. I am not afeared of them but the webs they make are a confounded nuisance in that I have to get rid of them before I can turn. The webs also hang onto dust and small chips. My question is have you ever come across this problem being raised by other turners? If so what was the recommendation?

Kind regards, John Collins

The Editor replies:

"John, I must admit that I have not received such an email before. My first comment would be that if you are living in a country with lots of nasty venomous spiders, I can see that this would be a grave issue of safety too.

Now I must admit you have me thinking. I do not know of any answers to this apart from having a massive clean up. Someone I spoke to years back swore by placing conkers all around the workshop. Of course, I cannot verify the efficacy of this, but it is the only thing I have heard regarding this subject. If anyone has suggestions, we'd love to hear from you!"

Another use...

Dear Mark
I enjoyed your leader. Here's another use for a workroom...

Cheers, John Owen

PHOTOGRAPH BY JOHN OWEN

Perhaps a second use for your work room?

Workshop clean up

Mark
As an answer to your question in *Woodturning* 294: I have a golden rule which works always: 'When your workshop is a mess and you can't find any equipment, start cleaning!' Double advantage: you will find your lost tool anyway and your workshop is clean. I fixed nearly everything on heavy duty wheels, even one of my two lathes. Also a mitre saw, two ribbon saws, a worktable... It gives me the opportunity to change my workshop in a minute while I need him to repair bicycles, store a trailer, assemble a cupboard, etc.

Greetings, Luc Boeye

FROM THE FORUM

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

Burr Elm

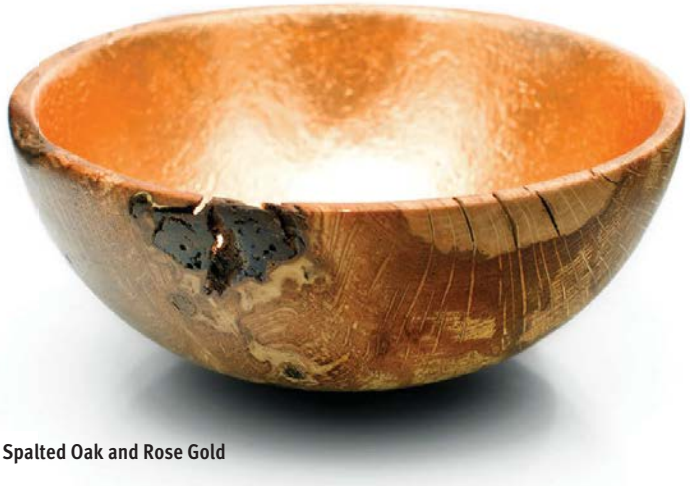
Mark Sutton's Burr Elm sculpture is certainly an eye-catching one. Upon posting the piece on the Woodworkers Institute, he said: "A small piece of work from the workshop this weekend, measures 230 x 100mm. The piece of timber was a workshop find on a recent tidying up session." Fellow forum user georg commented: "A neat way of using up surplus finds and old bits of wood Mark. The colours contrast very well."

SUSIE has posted her latest summery turned piece, called 'Pierced and Pyrographed Goblet'. Standing at 180mm tall, Sue says of her beautiful work: "I saw this idea at a demo by Mick Hanbury at Cumbria Woodturners recently, and apologise to him for copying it, but I just had to have a go." Impressively, she has managed to get the work down to 2mm thick and it is made of rippled sycamore (*Acer pseudoplatanus*) and finished with finishing oil.

Fellow forum member R1kx commented: "This is a lovely piece Sue. To get the walls to 2mm is a great achievement, I like the design around the rim it works well."

Pierced and Pyrographed Goblet

Made by Adam Cornish, this 'Spalted Oak and Rose Gold' bowl stands at 140mm diameter and 70mm tall. Adam says of the piece: "I love the natural beauty of wood but also believe that combining sympathetic media with the turned piece can add to the finished form." Forum user brody01527 commented: "Well, it ticks all the boxes for me. I think it's easy to go over the top with colouring/decorating. But the interior is sympathetic to the exterior on this one. If anything, I think it actually highlights the detail on the outside. Beautifully done."



Spalted Oak and Rose Gold

Carpathian Walnut

Pete in Welland discusses how he made this piece, 'Carpathian Walnut', saying: "I started off by taking a core out and straight away should have realised this was going to go badly. The core split into four pieces within an hour. I put lemon juice on the sapwood to keep it nice and white and then sealed it with oil and put into a large paper sack. After a couple of months I dragged it out into the light and found numerous cracks and some of the natural edge had fallen off. But I could see this piece had some potential and spent weeks re-turning, bleaching, hand sanding and trying different finishes in an attempt to get the sapwood a decent off white. Well this is how it ended up!" Broadstairs commented on the post: " I must say your patience has been rewarded with this, I really like it." Carpathian Walnut stands at 400 x 150mm.

Nutcracker – variations on a theme

Ian Woodford shares some ideas for designing and making a nutcracker

IAN WOODFORD

Ian 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.

penultimate@uwclub.net

PHOTOGRAPHS BY IAN WOODFORD

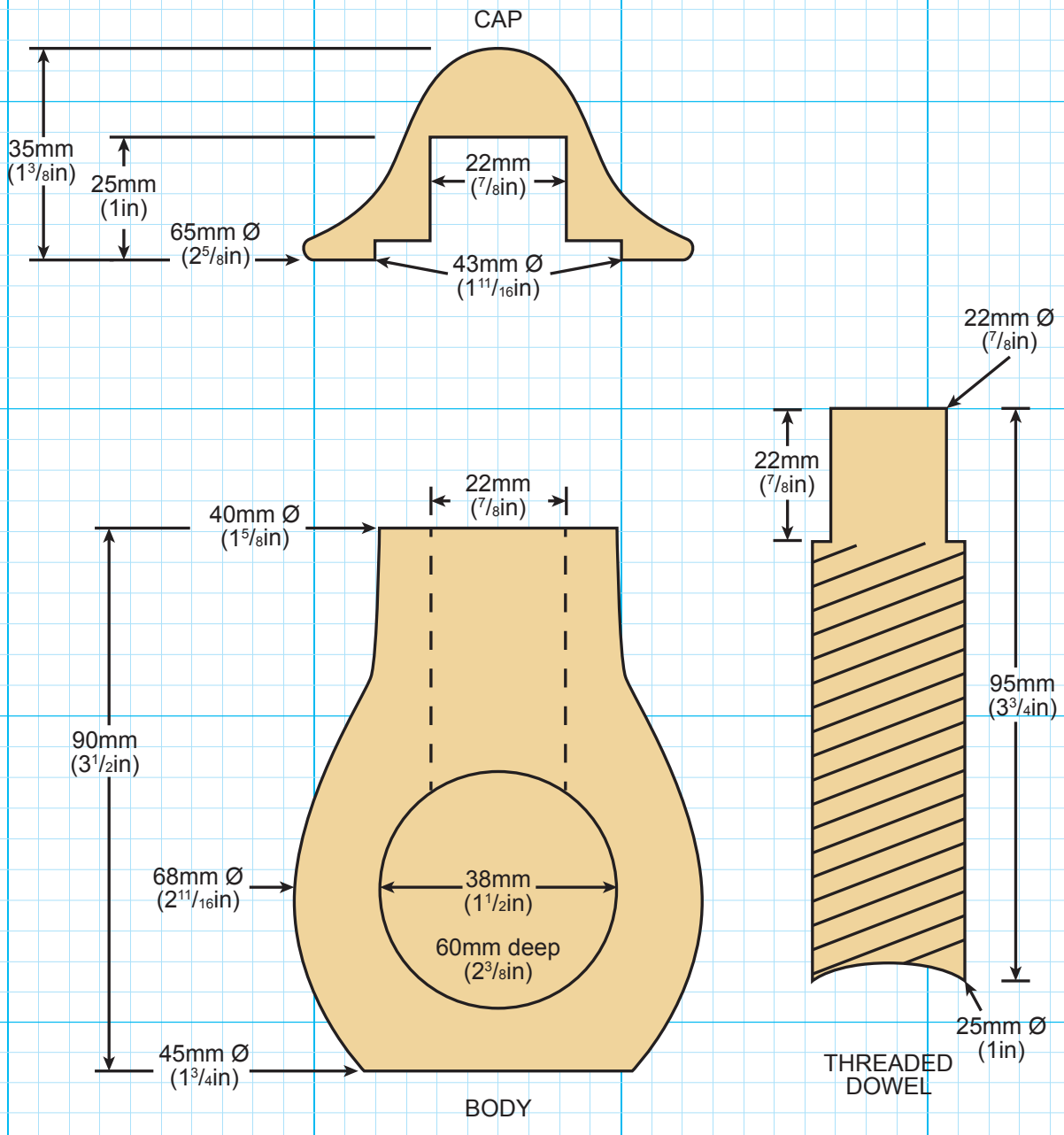
Since the early days, when Stone Age man cracked nuts by using lumps of rock, we have devised many methods to get at the edible nut inside the shell. This project is by no means new but is an enjoyable item to make in time for the winter season, when shops stock up on nuts for Christmas. It needs only a small amount of precision as you can vary the design to suit your own style.

Apart from a few basic turning tools, the only additional equipment you will need is a wood threading tool and a couple of Forstner bits. The wood you use should have a dense close grain that holds the screw thread without any breaking out. The red-capped cracker (*above*) is made from maple (*Acer campestre*) and the cracker with bark left on is made from desert ironwood (*Olneya tesota*). The bottom nutcracker is made from acacia (*Umbellularia californica*). However, for this project I'm using maple for the main structure because I can texture and colour it to my heart's content. Boxwood (*Buxus sempervirens*) is used for the male thread. This project is meant as a guide, so take the idea and adapt it to your own design. However, the hole where the nut is placed needs to be a minimum of 38mm in diameter, otherwise bigger nuts will not fit. I like the screw thread to be 25mm diameter for reasons of strength. So, without further ado let's get into the workshop.

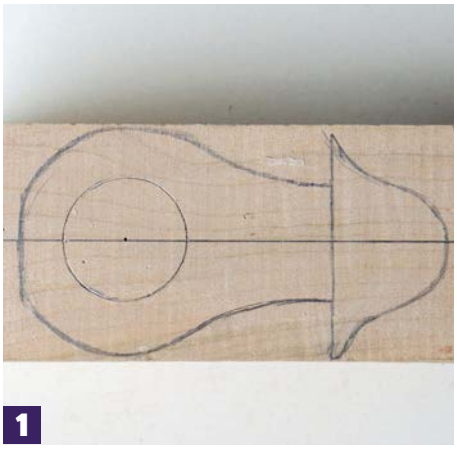
INFORMATION AND PLANS

EQUIPMENT USED
- Spindle roughing gouge
- 10mm fingernail spindle gouge
- Thin parting tool
- Beading/parting tool
- Bandsaw
- Jacobs chuck
- Forstner bits, 38mm and 22mm
- 25mm wood thread cutting kit
- Four jaw chuck
- Drive centre
- Callipers
- Ruler
- Centre punch
- Abrasive – 180–400 grit
- Glue – two part epoxy
- Semi-matte lacquer

TIMBER
- Maple – 165 x 75 x 75mm
- Box – 125 x 32mm
- Waste wood for jam chuck
- Any additional equipment like stains, carving tools or pyrography pens for additional embellishment as desired



1 Here is the 165 x 75 x 75mm blank of maple ready for work. The ends have been accurately centred and a line drawn along the length, also accurately centred. As shown, mark the two ends where spigots will be formed and then another line that represents the base of the cracker. 35mm up from this line, use a punch to mark where a 38mm hole needs to be drilled. As a guide I have drawn the main body shape and the cap. Mount on your lathe and turn the two spigots only, leaving the blank square. Remove from the lathe and separate the body from the cap using your bandsaw


1

2 The first operation on the body is to drill the main hole. Use a pillar drill or your lathe to do this. With the hole drilled and the blank mounted in your chuck, rough turn the blank to round


2

3 Now it's time to drill the hole for the female thread. I use a 25mm threading kit and this hole needs to be done with a 22mm Forstner bit mounted in the tailstock. Drill at a slow speed and keep clearing the shavings and drill until you break through into the 'nut hole'


3

4 Wood threading kits have two taps for the female thread. One is tapered and this is the first one to use as it starts the threading process. Position it as shown in this photo and use tailstock support so that the tap is perfectly central. Lock the headstock. Twist and advance slowly and keep repositioning the tailstock support to make sure the thread is cutting centrally. When you have cut into the 'nut hole' repeat the process with the parallel tap


4

5 With the hole threading complete and with tailstock support, it is time to mark out your final dimensions. Draw a line central to the main hole so that turning the curves can be started both sides of this, thereby leaving the hole central to the widest part of the body. Draw another line around the end tapped hole to leave a wall thickness of 10mm at the top of the neck. Both lines can be seen in this photo


5

6 Use a spindle gouge to turn the finished shape of the body. Sand to 400 grit. Also sand round the rim of the main hole to soften the edge. I haven't used any sealer because I will apply colour when the turning is complete


6

7 The shape is now complete, but don't part off yet. If you want to apply any carving and colouring, it can be returned to the lathe when all parts of the project are complete


7

8 Mount the cap blank, turn to round and face off the front. Drill a 22mm hole, 25mm into the face. The screw threaded dowel will be glued into this later. Turn a recess of about 5mm deep around this drilled hole to accommodate the neck of the body. This makes a neater finish when the cap is screwed right in


8


9


10


11


12


13


14


15

9 With a spindle gouge, start to rough turn the top shape of the cap...

10 ... and then reverse onto a waste wood jam chuck or pin jaws, if you have them. With your fingernail spindle gouge finish turning the top of the cap and sand to 400 grit

11 Mount a 125 x 32mm square length of boxwood between centres and turn to a finished diameter of 25mm. Do this very carefully as accuracy is required, so check frequently with Vernier callipers. At the tailstock end turn a slight taper about 12mm long ready for the threading jig to bite. Sand with 180 grit to make sure the blank is smooth and ready for threading. Now mount in your chuck and lock the headstock. Using the screw box, start the threading and make it slightly longer than needed

12 Once this is complete, unlock the headstock, turn on the lathe and carefully clean up and dish the end slightly so that the nut is held more securely when it is cracked. Measure along from the end 76mm and from this point reduce the diameter to 22mm for a further 22mm. Use a beading and parting tool for this. This area will be glued into the cap

13 Using a thin parting tool and supporting with your other hand, part off as shown. All turning is now complete

14 Here you can see the finished sections before assembly. It's now decision time as to whether you intend to add any sort of embellishment like colouring, etc. Whatever you decide and when it's completed to your satisfaction, glue the dowel into the cap using a strong glue such as two-part epoxy

15 I grooved, ebonised and coloured the cracker. The process is exactly the same as shown in *Woodturning* issue 281 where I described how to make my coloured mills. For pieces that are going to be handled a lot, I always spray with at least six coats of semi-matte lacquer when finished. I hope you have fun with this project ●

HANDY HINTS

1. When drilling with Forstner bits use a low speed to avoid burning the wood.
2. When thread cutting, ensure the cutting tap and box is central at all times.

Donal Ryan in profile

In the midst of recession, Donal Ryan made the decision to turn his lifelong hobby into a business. **Catherine Kielthy** finds out what motivated him to make the change

To start a new venture is always a daunting task; to do so in the middle of a global economic crisis takes self-belief, determination and, above all, talent. Step up to the lathe Donal Ryan, who has a string of accolades to his name including 2014 Woodturner of the Year in the Irish Woodturners Guild's Limerick chapter, top prizes at the 2013 Limerick Seminar and first place for his hollow form in the professional category at the 2015 Irish National Seminar. Yet this quietly spoken turner, who was born in Limerick but has spent the best part of his 33 years across the county line in Tipperary, is as modest as they come. Asked whether he's inherited his natural affinity for woodturning, he replies in the negative, adding: "I'm an oddball in that way, I'm afraid. My father was into timber, but not into woodturning. He never went near the lathe. There are three lathes here and he never went near one of them."

Luckily, Donal was able to pursue his interest at college and later set up his first business, manufacturing wooden gates, doors and garden sheds. At the same time, he was keen to explore his woodworking ability and in 2006 bought his first lathe. "It was a Record Power CL3; I still use it today. From there, my passion for woodturning developed, especially after the first few pieces." Recession was around the corner, however, and as orders in his manufacturing business began to dry up he changed tack. "I really enjoyed my woodturning and I was spending more and more time in my workshop so, in 2011, I took the plunge and turned my hobby into a full-time occupation."

The ebonised, beaded and textured ash tall hollow form that secured Donal first place in the professional competition at the 2015 Irish National Seminar

PHOTOGRAPHS BY DONAL RYAN

Contrasting styles

In his fledgling new business, Donal began with mostly production turning, making bowls, clocks and platters and 'simple' spindle turning. In the five years since, his style has changed frequently and he now tackles more demanding and complex processes and pieces. "I turn a wide range of items from functional to decorative work," he says. "This includes faceplate and spindle turning as well as hollow forms and commissioned gallery pieces. Even with a simple salad bowl, I'm now turning decorative textured beads on the front and nested styles. I particularly enjoy square turning and the use of different coloured woods. It's enjoyable and doesn't feel like work."

Alongside this has come a move towards more abstract shape and form as well as contrasting timbers and techniques such as ebonising. At the moment he particularly enjoys working with ash (*Fraxinus excelsior*) and yew (*Taxus baccata*). "There's a lovely kind of curly flame grain that can come up with ash and I love working on that."

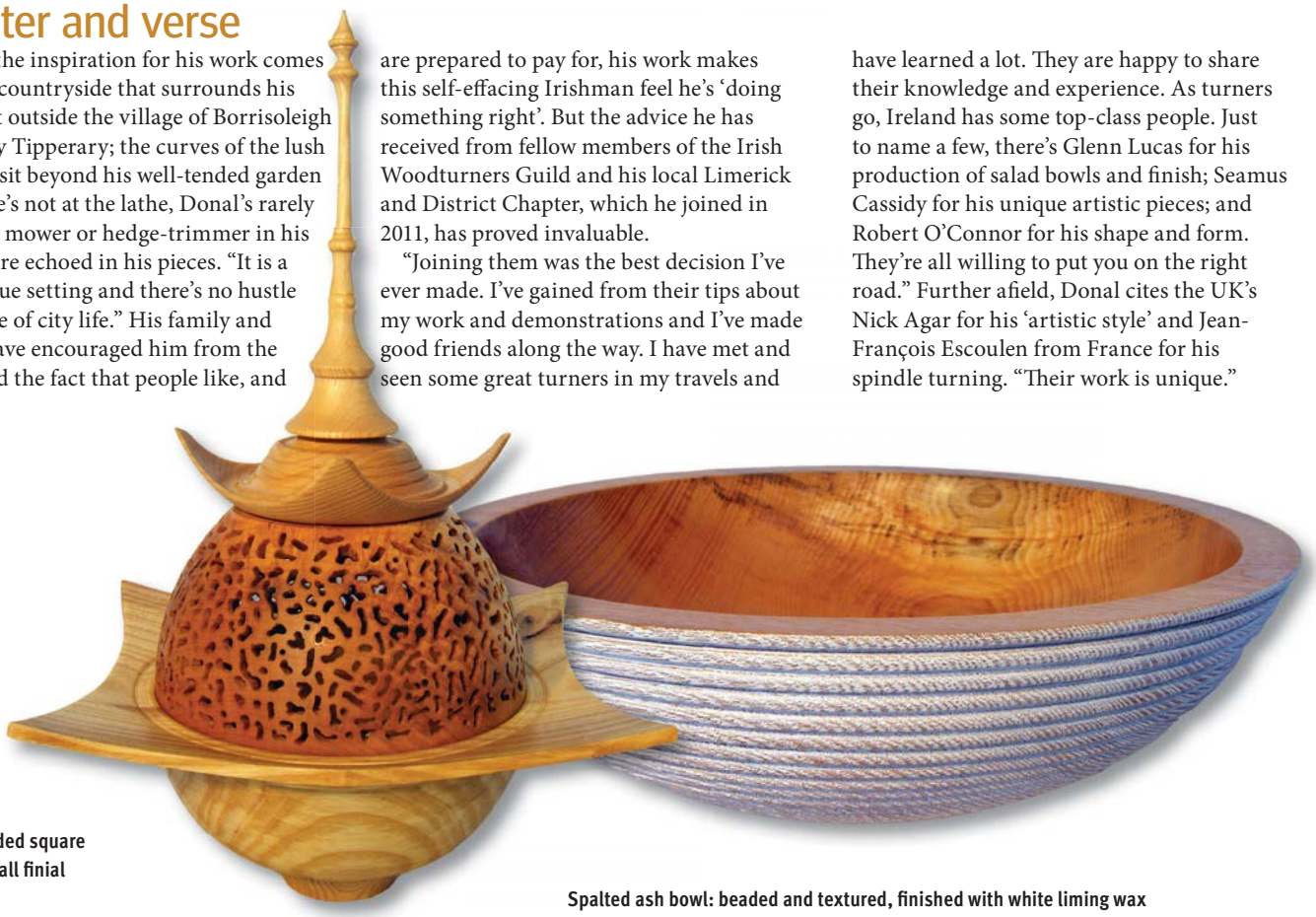
Ash nesting bowls: beaded, textured, ebonised and gilded on the front face

Square candlelight made from ash, walnut and yew flame

Chapter and verse

Much of the inspiration for his work comes from the countryside that surrounds his home just outside the village of Borrisoleigh in County Tipperary; the curves of the lush hills that sit beyond his well-tended garden – when he's not at the lathe, Donal's rarely without a mower or hedge-trimmer in his hands – are echoed in his pieces. "It is a picturesque setting and there's no hustle and bustle of city life." His family and friends have encouraged him from the outset and the fact that people like, and are prepared to pay for, his work makes this self-effacing Irishman feel he's 'doing something right'. But the advice he has received from fellow members of the Irish Woodturners Guild and his local Limerick and District Chapter, which he joined in 2011, has proved invaluable.

"Joining them was the best decision I've ever made. I've gained from their tips about my work and demonstrations and I've made good friends along the way. I have met and seen some great turners in my travels and have learned a lot. They are happy to share their knowledge and experience. As turners go, Ireland has some top-class people. Just to name a few, there's Glenn Lucas for his production of salad bowls and finish; Seamus Cassidy for his unique artistic pieces; and Robert O'Connor for his shape and form. They're all willing to put you on the right road." Further afield, Donal cites the UK's Nick Agar for his 'artistic style' and Jean-François Escoulen from France for his spindle turning. "Their work is unique."



Pierced lidded square bowl with tall finial

Spalted ash bowl: beaded and textured, finished with white liming wax

Fully kitted out

While Donal may be modest, his workspace is a veritable treasure trove of goodies. It comes in at 15x9m, with 5x9m additional loft storage, and houses three lathes, two hp Nova DVR, a Record Power CL3, a CL1, a planer/thicknesser, two bandsaws, mortiser, bobbin sander, belt and disc sander, panel saw, router table, three dust extractors, mitre saw, grinders and a compressor. There's also a well-lit display area for his work. "There is great space," he admits, "I've also added extension tables on my saws, which are great for handling long lengths and I have good solid benches." Are there no downsides to this area? "It can be chilly in the wintertime, but I don't mind." That's perhaps just as well given that some of his one-off pieces can take four to five days to complete – "one pierced piece took a full day just to do the piercing" – though he concedes a 'functional' bowl or clock might take only 15 minutes to an hour.

His schedule varies depending on the volume and type of orders, though his days are long, with an 8.30am start and an 8pm finish. During this time he might be cutting blanks with a chainsaw or his 'indispensable' bandsaw. His bowl gouge, spindle gouge and skew are also tools without which he 'would struggle' though apart from the homemade outrigger for his Nova Dvr, he has no real special tools. Time will also be spent matching wood for laminating, roughing out and air- or kiln-drying and there are the precious hours at the lathe before attending to the less-favoured computer work. As if this wasn't enough, he also fits in seminars and club demos, which 'are great because the audience keeps you on your toes', and has undertaken instruction at Limerick Training Centre in preparation for running his own woodturning classes.

WHAT MAKES DONAL'S DAY...

1 There is so much to learn about woodturning. You would never learn it in a lifetime.
2 Attending seminars and picking up techniques from top demonstrators.
3 Rough turning wet timber.
4 Seeing a finished piece for the first time.
5 Variable speed lathes.

AND WHAT GETS HIS GOAT...

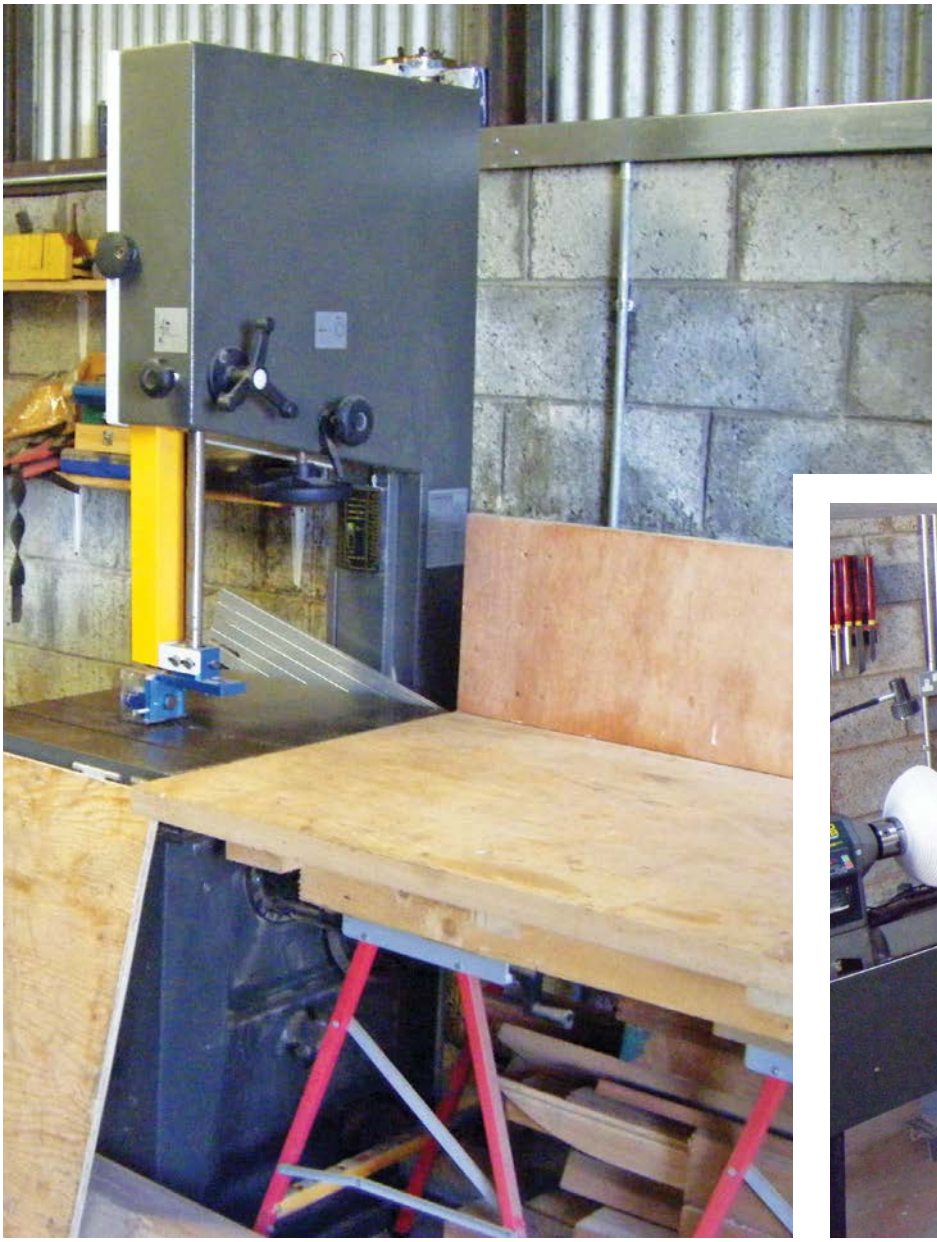
1 Cracks and splits in wood.
2 The financial constraints of woodturning.
3 Clients who do not see the time that goes into a piece.
4 Dust when sanding especially kiln dried walnut (*Juglans nigra*) or iroko (*Milicia excelsa*).
5 Rust on lathe.

TOP TECHNIQUES...

When rough turning wet wood, rough turn in the winter. In summer the temperature is higher, there is a greater chance of end grain splitting. Keep covered under plastic and avoid direct sunlight.

HANDY HINTS

1 Practise, practise, practise.
2 When you get it right, you learn nothing; when you get it wrong, you learn a lot. Don't be afraid to make mistakes.
3 Learn to sharpen correctly. Sandpaper does not replace a bad edge.
4 Attend demos and seminars as much as possible and join a club. You will learn loads.



The indispensable bandsaw to which Donal has added extension tables for cutting long lengths

Workaholic Donal shows off one of his spalted ash bowls

Future aspirations

Artistically, he is keen to explore further shape, form and contrasting timbers, and hopes to get more of his pieces into public view. Locals, of course, can view the work he has on display and he uses Facebook to showcase his pieces to a wider audience. He hopes to reach more people when his new, revamped website goes live.

He admits that promoting his work at craft fairs and events 'has been hit and miss', but hopes that 'sales get busier to keep the bills paid'. It is, he concedes: "the downside of being professional".

In the meantime, he would like to travel further afield to see other great turners demonstrating their craft and hopes to attend some American Symposiums.

Whatever happens next, Donal has no regrets about becoming a professional turner. Yes, there are the lows, when orders are scarce or "you go through the bottom of a bowl – one reason why I started making clocks", but they're outweighed by the highs, including demonstrating for the first time at the 2015 Irish National Seminar. "A great honour," he explains. Behind it all is the enviable thrill he gets from woodturning. "Every day is enjoyable, whether you're making a simple pen or something more advanced. There are so many different types of work that can be produced on a woodturning lathe. There is something for everyone. You can often have a bad day, but it's all part of learning. And there is so much to learn." ●

Skelthon clock made from sapele (*Entandrophragma cylindricum*), yew and white oak (*Quercus alba*) base

Donal's ash, walnut and yew flame candelabra, was awarded third place in the spindle competition at the 2013 Irish National Seminar

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Woodturning

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Making tool handles

This month, **Kurt Hertzog** looks at making tool handles for the workshop

PHOTOGRAPHS BY KURT HERTZOG

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 contributing to *Woodturning* magazine. He is on the Pen Makers' Guild Council and is past president of the American Association of Woodturners (AAW).

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Most often when you buy a tool it comes from the store already handled. However, there are tool companies that offer tools without handles for a variety of reasons. Some that come to mind are the size and weight with their impact on shipping issues. Another reason is that the end user may favour a handle of the size and weight of their own design. Paying for a handle that will be removed and replaced isn't desirable by the customer. The end user selects the tool design and steel with the knowledge they will be mounting it in their own handle. Can you buy great handles in the market to mount your tool into? Certainly. You can choose from woods and metals with both permanent and removable versions available.

For those who would rather not tackle making your own, these are an available option. Why wouldn't you turn your own? Whether you've bought an unhandled tool, would like to change the handle on a current tool, make your own tools and need to equip them with a handle, or turn a handle for the challenge of it, we'll take a look at the considerations and techniques of making tool handles. While you can deal with metals on your wood lathe, we'll focus mainly on wood as the material for our handles using metals where needed in the ferrule area.

Safety

You should always be using the appropriate PPE whenever you are turning as a matter of course. Tool handles and a spindle turning of modest size don't require special considerations in their turning other than the good practices for long slender turnings. Common sense speeds and feeds are always

For drilling and cutting of round stock, a V block is essential. Store bought or shop made will be an asset

in order. Do consider your design and materials for their end use. Be certain that you've given sufficient strength in the ferrule area and embedded the shaft deep enough to provide for safe usage in your application. If you need to err, err on the side of stronger and deeper than needed. The small amount of extra effort to do so will pay dividends over the life of the tool being capable of dealing with the stresses in use.

INITIAL THOUGHTS FOR TOOL HANDLE MAKING

- One of a kind or a family of them?
- Template required if many of the same size or design?
- Single or multiple piece design?
- Permanent installation or removable?
- Simple materials and design or 'artistic' expression?
- Adjustable mass and location?

Commercial or homemade, size, shape and interchangeability are a consideration

Size, leverage, amount of use and need to travel will all impact your handle decisions

Considerations

After running through the initial thoughts for tool handle making, you'll need to have a plan for making any tool handle. The most obvious is the size of the tool and the size of the handle needed for that tool. Small and short detail gouges will certainly need a more dexterous handle than a very large bowl gouge. The ratio of overhang over the toolrest with respect to the overall tool handle length and heft needs to be planned. While there are ratio numbers floating around, I hesitate to quote them since they vary widely and are a personal preference. Suffice to say that it is far easier to shorten any handle than it is to lengthen it. Other factors that will impact your design will be the geometry to the shaft, where it will be embedded into the handle. The round tool shafts are easy to design and process. The square or rectangular tool shafts require a bit more effort. Most often, square or rectangular shafts are embedded into a round hole of sufficient diameter to accommodate the corner-to-corner dimension of the shaft. There are other methods of dealing with non-round shafts but we'll leave that for another time. Perhaps the most pressing design consideration is whether the tool will be permanently affixed in the handle or removable. Why make one that is removable? The two most common reasons are for cost and travel. If you have a handle in the 'shop that accommodates many tools, you only need one or a couple of them to hold the tools you'll be using. The obvious size and weight savings of sharing a handle when travelling is a great reason for removable handles. Taking your needed tools and only one handle to mount them will save plenty of space and weight in this day of baggage excess fees.

Design of the handle

The first consideration probably will be the size and shape of your handle. You'll need adequate centre-to-centre distance on your lathe to be able to mount your handle blank. If not, you'll need to work on another lathe with that greater centre-to-centre capability. An option not often explored is a two-piece handle. It has the benefit of breaking down into a shorter length when travelling. This can offer some of the benefits of a removable tool handle without being of that design or shortening a long handle on a removable tool handle. Those who have turned walking canes with the breakdown hardware will see the mechanics possible. The diameter shouldn't be an issue for any lathe since it will be very nominal compared to the length. What about the shape? From the ferrule area to the very butt end, the shape is up to you. Take a look at the various shapes offered in the marketplace on the handled tools. Those shapes evolved over years based on the comfort and feel that the end customers preferred. The grip area, location and diameter, are planned to give the user an easy place to find without looking. Often a feature or marking is incorporated to know the orientation of the cutting edge. This can be helpful for those whose tool tip will be out of sight such as when deep hollowing. Being able to 'choke up' on the tool is also an important consideration. Depending on the tool type and the uses, that grip for more control is very important. My suggestion is to review the tool handles you own and like as well as look at those differing shapes available. What do you like about any particular handle? Why? Incorporate those features into your design. Some tools have designs that are very unique to the brand. Once you've selected the size and shape you think you'll like, a sketch with dimensions or a story stick might be in order. The reasons you'd want to document the design are to allow you something to work to at the lathe as well as replicate should you wish in the future. Moments to do and takes little space to store. A visit to *Woodturning* 253, 'Duplicating turnings' might be helpful to you for the measuring and documenting aspects.

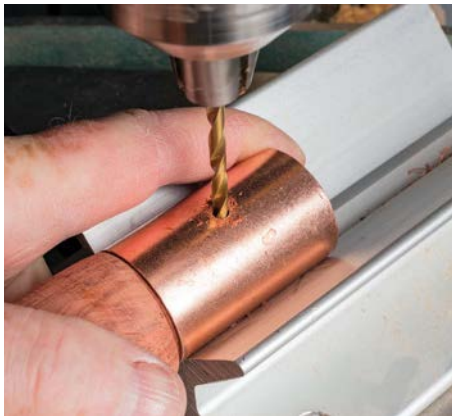
Plain Jane and fully functional. The short handle on a detail tool works perfectly

Most of the home-turned handles I made are of the same basic shape but sized as needed

Permanent or interchangeable?

You can find an assortment of handles, with and without threaded shafts. Threaded stock is available

For more ornate handles, look in the cabinet section of your home improvement centre



Drilling and tapping a ferrule is not difficult. Be certain you have or make a V block to assist

Once your length and shape has been determined, you'll need to plan for the interface of the tool and handle. Permanent is an easy task. We'll bore a hole of adequate size to receive the shaft, whatever the shape, with a bit of clearance for adhesive. The ferrule strengthening and cosmetics can be dealt with per your wishes. If you are going to make an interchangeable handle, things become a bit more complicated but certainly doable. The easiest methods for removability are set screws or a threaded knob in the ferrule. These can be tightened down when the tool shaft is seated in the hole of the handle and will hold the tool in place. Whether you use set screws or a threaded knob of sorts, you'll need to provide material and enough wall thickness for threads and sufficient strength for the stresses on the threads. Not only will you need to plan accordingly but you'll also need to be able to tap the ferrule for threads. Tapping a hole isn't difficult but since taps are very hard and brittle, you may wish to have someone experienced help you with this if it is totally foreign to you. The technique of starting the tap perpendicular to the hole and the ongoing process of breaking the chip are easily learned but sometimes a challenge for the newcomer. An experienced friend, nearby machinist, or local garage mechanic should be able to tap a couple of holes for you in two minutes or less. If you want to learn, review the wealth of materials available on the web or learn from an experienced friend, and then practise on some scrap rather than risk learning on your sized and ready to use ferrule.

Drilling the tool shaft hole

You can use the marked callout of the tool shaft diameter if you wish but I always measure it. An inexpensive pair of dial or Vernier callipers will give you the measurement. If round shafted, you'll just need the diameter. If square or rectangular, you will need the measurement across the corners at the maximum dimension. Some folks use a diameter a bit smaller and pound the corners in. I'm a fan of a slip fit and then fastening with epoxy or set screw depending on your system. Ideally, you'd like to use your lathe to drill the tool shaft hole but sometimes the length overall of the handle prevents it. Options for drilling the tool shaft hole range from using the lathe to a pistol drill. I prefer using the lathe but if needed you can often use the drill press depending on size and setup. Without those, you can easily use a pistol drill with the tool blank held in a vice. I suggest you drill your tool shaft hole into the unturned handle blank. Drilling the hole after you've turned the handle is possible but less attractive. Not required but piloting on the drilled hole will keep everything on axis. Once you've drilled your tool shaft hole, you can test the fit of the shaft for depth and clearance. For the permanent mount, you'll want a slip fit to allow room for the adhesive as well as a path for the trapped air to escape.

ABOVE: Your drilled size will usually fall into a couple of standard diameters but the square, rectangular and tapered vary. RIGHT: Adapters are available so you can accommodate a couple of different shaft sizes with one hole diameter

With no path for the air to escape from the hole, you'll create a piston when you glue the shaft into the handle. I use a very small bleed hole drilled into the ferrule area from the side of the shaft at the bottom of the hole. This allows the air to escape and will ultimately fill with adhesive. It doesn't need to be a big hole. Just large enough that the air can bleed out of the compressed piston as you seat the tool when glued.

You can drill with a twist drill or a Forstner bit. The Forstner will give you a square bottom. Notice the cut in glue traps

I know exactly my drill depth by setting the bit extension in the chuck and drilling to the chuck face

Turning the handle

You can turn the handle in many different manners between centres. If you've used a chuck to mount your handle for drilling, you can simply bring the tail centre up into the drilled hole. The cone centre will work well with this. I will usually put the ferrule on even as a slip fit to prevent splitting. You can use a mandrel to pilot on the drilled hole. That will keep everything turning on the drilled hole axis. While it is nice to have everything perfectly on axis, in the real world it almost doesn't matter. You don't want to be way off but unless you get too sloppy, a bit of misalignment will go unnoticed. Your design can now be implemented as you planned. Turn, sand and finish as you wish. I use my lathe as a work holding device for finishing so I finish right on the lathe. You can do all of the work short of finishing should your selected finish be better applied outdoors or in a paint booth. I am a fan of Ca or lacquer finishes and find they are best applied right on my lathe. Be certain your workspace is equipped properly if you are spraying and certainly use all of the recommended PPE when using finishes.

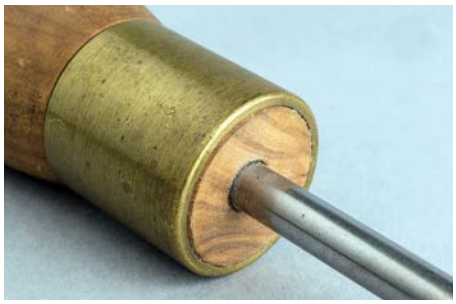
Rather than measure, I use the ferrule to test fit for size. Fast, easy and accurate. Turn until you like the fit

My favourite finish is Ca adhesive. After 15 years of use, this homemade tool and handle still look good

The ferrule

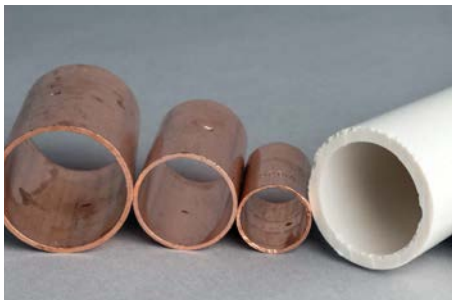
Most of the times the ferrule is cosmetic. It can prevent splitting of the shaft at the tool shaft hole but hopefully isn't needed for that. The shaft design and tool buried depth should have been planned for sufficient strength. In addition to the looks, the ferrule if made of metal can accept threads for securing the tool in the handle. Most tools from the major manufacturers have a metal ferrule that is slid into place and staked or crimped to remain in position. The home-built tool handle with a metal ferrule is most often fastened with adhesive since the home user doesn't have access to the industrial level crimping or staking tools. The options for metal ferrules are your choice. Brass or bronze are the best looking in my opinion but many turners won't have the stock or be able to work them. Alternatives are copper whether piping cut to length or unions from the hardware department. Cutting glue traps into the ferrule area while turning will help with the cosmetics of using adhesive to fasten the ferrule. Remember, the adhesive needs to only hold the ferrule in place! We all tend to use too much and then need to deal with squeeze out.

The easiest ferrule is no ferrule. My Chris Stott hollowing tools are light enough duty to require none



This detail tool doesn't really need a ferrule for strength but the ferrule adds a nice look

Copper from the plumber or home improvement stores will work well for permanent or taking threads



I've experimented with PVC piping for ferrules in low demand applications. It colours nicely

Removable handle options

You'll need to fasten your tool shaft into the handle for use. There are quick lock mechanisms available but most of us will be using a threaded fastener. The ferrule will need to be drilled and tapped for the fastener you choose. You can use a set screw or two which work well but require you to have an Allen wrench of the correct size. A bit more ornate eliminating the need for a wrench is a knob on the end of a threaded shaft. You can visit your home centre to select a knob with its pre-determined thread size or buy threaded rod to adapt or make your own knob. If drilling and tapping is new to you, ask someone experienced for some assistance.

Decoration and ornamentation

The decoration and ornamentation of your tool handle can range from burning your initials into the butt end to a full blown artistic creation. Some of the handles I've seen are too pretty to use. The options are yours. Obviously you'll need to protect your creation so plan on decorating and then applying the protective finish. You can also apply a finish to provide for a base for your decoration and then apply additional finish over the art work to protect it.

My Stott hollowing tools certainly don't get mistaken for anyone else's

A bit of ornamentation on a detail tool by the late Gorst duPlessis

Adding mass to the handle

There are many ways to fine-tune the mass of your handle and the location. Most aftermarket handles use lead shot in a cavity in the butt end of the handle allowing for access to the cavity via a threaded plug. You can incorporate the same method if you wish. Use a trial and error method of adding weight bands to the handle as you evaluate the effect. Once you've arrived at your desired weight, you can drill the handle to create a pocket, add the desired weight, and then plug the cavity permanently trapping the weight in location forever. You can locate these holes in the side at one or more locations as well as the butt end.

Conclusions

Over the years, I've seen the gamut of home turned handles ranging from pretty gnarly to exquisite. The gnarly serve their purpose and the exquisite draw favourable attention to the tool and the maker. Regardless of where your handles might fall between those extremes, if you've made your own handles you'll certainly be able to pick your tools out in the crowd. This is especially helpful when you are teaching or turning with a group. Tools tend to migrate to the various lathes and benches and if you own standard factory tools, leaving with your own is sometimes a challenge. I liken the making of your own handles as your own expression. Paint them, pyrograph them, distress them, inlay them, or one of the many other ways of personalisation. The tool handles that I'll never forget were those of Petter Herud. All of Petter's tool handles were turned multi-axis so they wouldn't roll off the table and were of exotic wood. Not only unique but sharp looking and certainly distinctive. His entire kit was matched in shape and species. Will you make your turned handle serviceable or a piece of art? Your choice but you now have sufficient basics to launch into turning your own handles. ●

Plain, painted, ornamented, inlayed, pyrographed, or whatever you choose, making tool handles is easy and fun

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Th t way, there's nothing to fear and nothing to discourage you from sharpening as often as neccessary to keep your tools turning-sharp - and that can mean as frequently as every few minutes. Without sharp tools, you can never be a sharp turner, so it is important to get this particular little trick under your belt as soon as possible.

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Steinert Alpha Optimo 250 lathe

The Editor jumps at the chance to test and review the Steinert Alpha Optimo 250 lathe

I am fortunate to be able to try lots of lathes in my job, and trying new ones is always fun, so when I had the chance to get the Steinert Alpha Optimo – from Germany – on loan in the GMC workshop for a year, I wholeheartedly agreed. We have not had one on loan at the GMC workshop before – although I have turned on one in a demo – but a year-long test is very different to a short demo.

Initial observations

The lathe was delivered to our workshop and packaged superbly on a pallet. Getting the lathe off the pallet required four people to manoeuvre it off and into position. Then it was a case of unwrapping it – just like Christmas really, a new shiny thing to unwrap and play with. Needing four people to lift and move the lathe should tell you it is heavy. Upon checking the specs, it is 230kg without the optional extra bowl turning attachment (20kg) which was sent with the lathe for testing too. Definitely solidly built! Once unpacked and placed in the work area, it was a case of familiarising myself with the lathe.

Headstock and drive train

The lathe I received is the variable speed version which has three pulleys with poly-V-belts to work with too, giving a total speed range of 100–750/280–2100/420–3150rpm respectively. The manual speed change version has five speeds with 370/800/1400/2000/2800 speed settings. The headstock is cast iron open construction and can be rotated through 180° by releasing a central nut in the open middle section of the headstock.

Assembly

It can be located at any angle up to 180° but it can be accurately located with the spindle in line with the bed, at 90° and 180° via the use of removable insert blocks that lock into machined indents. The headstock isn't enclosed like some, so allows people to use the spindle to rotate work easily by hand – when the lathe is switched off – when required. The spindle housing at the front has a grease nipple. The manufacturer says: "The grease nipples are not to lubricate or maintain the bearings but to seal the rotary shaft seals to prevent dust getting into the bearings. It is up to the user to apply grease but only very little and rarely – once a year."

There is a spindle lock pin on the front underside of the spindle housing. The spindle thread is M33 x 3.5 and has a 2 MT bore in the nose. The spindle is also hollow with a 12mm bore all the way through the centre. There is a 250mm swing over the bed giving a 500mm capacity over the bed. The pulleys are held in a nice fabricated housing and one set of pulleys are on the rear end of the headstock and the other housed on the motor which is held and pivoted off the back of the headstock. The release mechanism to raise and lower and lock the motor in place is via a nice simple to use bracket system and handle. The motor is a 1.5Kw three phase motor fitted with an inverter so it runs off a normal 13amp supply. The variable speed controller is magnetic and on the end of a reasonable length of electric cable and can be placed along the bed or in an easy to reach position of your choosing. There are simple to use on and off buttons and a speed knob.

Toolrest assembly

The base section and toolrest are constructed of cast iron and are substantial. The base section has a slot cut along its length and held to the lathe bed via a locking handle. This is not a cam-locking mechanism, it is a physical clamping down mechanism. The handle can be lifted to present the long lever arm in various positions to ensure it does not foul against the uprights, or tailstock if things are close together.

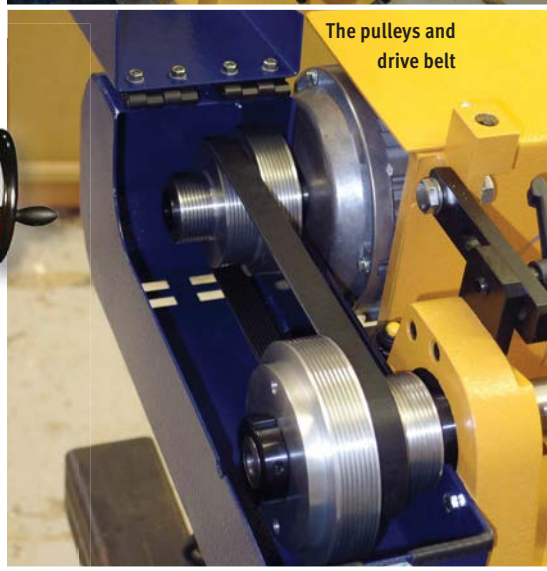
The tailstock

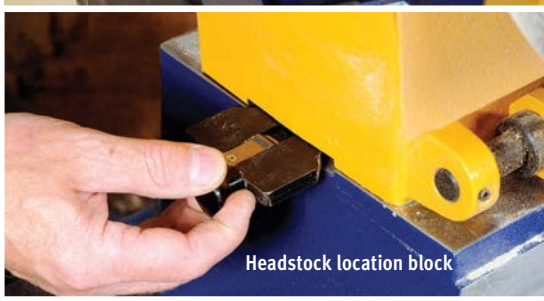
The quill is very robust and made from solid steel. It is not bored through, but does have a 2MT throat. The tailstock is made from cast iron and has a sturdy handwheel.

PHOTOGRAPHS BY GMC, UNLESS STATED OTHERWISE


Removing all the packaging


The headstock assembly


The pulleys and drive belt


Headstock location block


The tailstock assembly


Toolrest assembly with adjustable locking lever

The headstock and tailstock lined up perfectly

The headstock can be rotated by removing the location blocks and slackening off a central screw

The bowl turning attachment fitted to the lathe

Support leg for the bowl turning attachment

The rest fitted on the BTA

There is a quill locking handle and a sturdy lever on the outboard end of the tailstock to lock everything to the lathe bed. There are also two grease nipples in on the tailstock assembly; one at the top near the inboard end and the other near the handwheel. Only occasional application of grease is required to keep everything running smoothly.

Interestingly the quill is not bored through so it cannot be used for long hole boring. That said, I checked up on this and was told: "Steinert offer a 'long hole boring guide' which is mounted on the bed: this is fitted with a guide bush to suit the hole being drilled and serves to support the workpiece and drill during the boring operation." This, of course, is an optional extra but, as you might have already twigged by now, if you have the right drives and such like, you can bore through from the headstock instead of the tailstock.

The lathe bed

The lathe bed itself is machined cast iron. Heavy and very accurate it is too. The legs on which the lathe bed sits are heavy-duty metal constructions.

Bowl turning attachment

The bowl turning attachment (BTA) locks into the headstock end of the lathe via brackets and then has a central box-steel horizontal slide that runs in two specially designed support brackets. On the end there is a steel cross–slide section onto which you can place the toolrest assembly. There is a support leg that can be used to provide extra support for the BTA when the unit is extended a long way from the spindle and much reduces any flexing downward pressure-wise when used at these distances.

In use

As you would gather, over the time period

Fitting a large blank on the lathe ready to use the BTA

I have had this lathe I have really pushed its limits turning-wise as far as types of woods used, size and balance and really punished it cut-wise just to see what is could and maybe would not do. The electronic speed control is sweet and smooth with no jerky increases.

The lathe is a quiet one in comparison to many I have used and you can easily hear everything around you and noises that alert one to any potential problems when turning – for instance the sounds change encountered when cutting a piece as the wall of the turning gets thinner. When turning large work I did experience torque issues, but only because I selected the wrong pulley set to give me the correct speed range to provide the right safe-working speeds for the size of work. Selecting the right pulley set to give you the right speed range is not

Using the bowl turning attachment, heavy duty cuts were no problem

only best practice, but also prevents you from inadvertently winding up the speed knob to a higher speed than is safe for the size of work being tackled. The top pulley range certainly packs a punch torque-wise and allowed me to turn a wide range of work before changing belts for the larger items to minimise the risk of selecting too high a speed. I have to say that the large pieces did not vex the lathe in any way solidity or vibration-wise. Of course, when setting it up I made sure it was level and all feet had good contact with the floor so there was no rocking. When turning large work – even with very out-of-balance work there was negligible wobble or vibration when turning within the right speed range for the work being tackled. I long-hole bored by going through the headstock and experienced no problem at all doing so – but I did create a centre indent for the long-hole boring rod to locate into easily prior to boring.

The tailstock is a delight to use and locks beautifully in place on the lathe bed and the quill movement is smooth and effortless. It doesn't balk even when I abused it by trying to use large saw-tooth bits in a drill chuck to bore work very quickly and under a lot of pressure it was a silky-smooth operation all the way. The toolrest assembly stays locked solid where you place it. I must admit to getting niggled at times regarding the locking handle positioned on the top of the base section of the toolrest assembly. Even though in theory one can lift and adjust the lever position so that it should not foul any work or tailstock it did get awkard a few times when working with the tailstock in place and close to the headstock on between centres work. It can, should one ever turn very large diameter columns and spindles between centres, reduce the maximum diameter able to be turned due to the large boss on the top of the adjustable locking handle. In practice, such jobs are rarely done by non-professional turners. I suppose I have got used to using camlock systems. But, here is the rub, with some such camlock units lateral pressure when turning can, at times, move the unit sideways whereas this Steinert system – used a lot on mainland Europe – is as solid a lock up as I have ever encountered and did not budge a millimetre when locked in place. The toolrest is a nice design allowing you to get close to the work and have your fingers close to support the tool properly. The toolpost also locks beautifully in place and did not shift at all when turning – unlike some I have encountered. The bowl turning attachment was easy to use and manoeuvre and allowed the turning of large work easily with no fuss. Of course, one could opt to use a floor standing rest if you chose to. But like the rest of the lathe this was well made and did the job it was intended to and while many do not turn such large pieces, the option to be able to do so is always a plus.

Conclusion

I would describe this lathe as solid, sturdy, dependable and very well built with a lot of thought and attention gone into designing and making it. The lathe coped wonderfully with everything I have chucked at it – despite my trying to cause it to baulk – over the year of using it. Yes, I have a personal niggle regarding the toolrest assembly locking method, but I cannot fault its ability to do what it is intended to do and it does it well. The power delivery is a dream. The price tag puts this up there with the top end lathes we encounter but it did everything I have asked of it without fault.So, the crunch question is, would I spend this kind of money on this lathe if I were buying one? Well, knowing how this has performed since I have had it and how it has coped with what I have put it through, my answer is an unequivocal 'yes'! ●

Turning a typical bowl over the lathe bed

TECH SPEC

- **Centre height:** 250mm or 750mm over bowl turning attachment
- **Distance between centres:** 1000mm
- **Motor:** 1.5KW (2HP), 230V, 50 Hz, for model as tested. Other options available dependent upon drive selection
- **Transmission:** 8-groove poly-V-belt
- **Power supply:** 230V, 50 Hz
- **Speeds in rev/min:** With inverter drive, as tested, three-stage pulley transmission giving 100–750/280–2100/420–3150 rev/min. Direct drive option, five speeds: 370/800/1400/2000/2800 rev/min
- **Headstock/spindle:** Cast iron with hollow spindle (hole 12mm) with spindle thread M33/DIN 800 with a 2MT throat
- The headstock can be rotated by 180° and centred at 0°, 90° and 180° exactly by means of precision alignment blocks.
- **Spindle bearings**: Maintenance-free (dual-row angular contact ball bearings to absorb the thrust loads in the inboard side and deep groove ball bearings on the outboard side)
- **Tailstock:** Cast iron with 2MT in the quill
- **Toolrest:** 275mm, shaft 30mm (other lengths optional)
- **Weight in kg:** 230
- **Overall measurements LxWxH in mm:** 1950/600/1200

Pricing

- Steinert Alpha-Optimo lathe complete with electronic variable speed option (through three-speed step pulleys): **£6210**
- The lathe is also available without electronic variable speed but driving through five-speed step pulleys: **£5445**
- Bowl turning attachment (optional extra) : **£728**

Contact

For UK enquiries contact:
The Toolpost
www.toolpost.co.uk
01235 511101
For the rest of the world contact:
Steinert Drechselzentrum Erzgebirge
www.steinert.eu

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Wax

Mark Palma looks at expanding the use of wax in woodturning

PHOTOGRAPH BY GMC PUBLICATIONS

INSET: Micro abrading the sanded surface with wax as a lubricant and finish

MAIN: Applying wax to a sanded surface with a finger. The wax being used is non-toxic

PHOTOGRAPHS BY GMC PUBLICATIONS UNLESS OTHERWISE STATED

MARK F PALMA

Mark is a self-taught turner who began turning over nine years ago for fun. He is a tax lawyer with a national law firm who also has a CPA and MBA. When he is not working in his professional life, being a spouse, parent or volunteer, he can often be found in his workshop. Mark is a member of AAW and the Chippewa Valley Woodturners Guild AAW Chapter.

marksworkshop@gmail.com

Wax has been used in woodwork for centuries and this simple substance can serve a valuable role in the woodturner's kit. Wax can be a stand-alone finish, a component of a finish, a surface protector to an underlying finish, an enhancer to a piece and a way to help maintain the lathe. Here is an overview of some of these uses. Wax comes from several sources; bees, as a petroleum derivative or from vegetables and nuts. In its natural state wax is a solid and has limited use.

Most waxes are a mix of a base wax and a solvent. Solvent is what is used to dissolve or soften the wax so that it can be applied to the work. When the solvent evaporates, the wax is left on the work.

Wax pros and cons

Why wax?

- Wax is fast, inexpensive, dries in minutes and feels good to the touch.
- Wax is effectively foolproof; it does not sag, run, drip or require personal protective equipment.
- Wax can be applied on the lathe or after work is removed, either as a stand-alone finish or as an enhancement to many other finishes.
- Wax can be used as a sanding lubricant.
- Wax can be used to add colour, enhance grain, instantly 'age' a piece or allow a range of expression.
- Wax finishes are renewable, so as the finish wears it can be touched up.
- Wax does not require expensive application equipment. Wax can be applied with steel wool, Scotchbrite pads, rags or paper kitchen towels. A brush, rag, kitchen towel or buffing wheel allows the wax to be brought to various levels of gloss.

PHOTOGRAPHS ON THIS PAGE BY MARK PALMA

A selection of wax finishes

Consider applying wax by hand after the piece has been removed from the lathe. It is safer and the process can allow you to experience how the piece will feel to the recipient. Put on some music and apply wax to a few pieces at once. After they dry for a few minutes take a shoe shine brush or soft cloth to the work and buff out the finish for a soft sheen

Wax can be used as a form of embellishment through the use of coloured waxes. Coloured wax allows you to fill in the pores, grain in certain woods or surface embellishments you added with a splash of colour. Apply the wax sparingly to the work while it is spinning on the lathe. Wipe off immediately with a soft cloth. Sometimes a little oil on the cloth will help soften stubborn wax

Applying wax from a tin does not require any expensive equipment. If you are working on stationary work or off the lathe, charge a cloth with some wax, apply it to your work and store the cloth right in the tin. After a few applications your cloth will become charged with wax and require little additional wax with each use. If you use steel wool to apply wax, a technique that will cut back a glossy finish, dedicate that tin of wax for steel wool only as the steel fibres will contaminate the tin

There are several different tools available to buff out the wax you have applied to your work. Buffing wheels come in several forms. They may be mounted to the lathe, a drill or a dedicated buffing motor. A paintbrush that you have given a 'haircut' makes an excellent tool for removing wax build-up from cracks and crevices. A stiff shoe shine brush works well to buff out your work off the lathe

Wax can be used as a sanding lubricant to effectively eliminate sanding dust at the lathe. Dedicate a tin of wax for sanding as the abrasive particles will invariably contaminate the tin. Dip your abrasive in the wax or apply wax to the work and sand away. As the wax is also being used to collect the dust, it will build up on your abrasive and in the grain of the wood you will need to change abrasives more frequently. This method can only be used on timber of a uniform colour. If you have a red coloured heartwood and cream sapwood present you will end up with a red sanding slurry that contaminates the cream sapwood. Please note, the wax and dust mix will remain in the wood and may impact your finish choices. You can add some oil and finish with wax for a great soft finish that is easily repairable

Wax isn't perfect

- Wax will build up in voids, sanding scratches, cracks, tear out or any surface irregularity. You cannot 'hide' bad work under wax!
- Wax isn't heat resistant, and although somewhat initially water resistant, it is not a durable finish.
- The soft nature of wax allows it to trap dirt. Wax pieces will attract dust in dirty environments.
- Some wax contains silicones. As many finishes do not react well to silicones, using a silicone wax may contaminate your 'shop and future work you do.
- Wax cannot be top coated. It is the last layer to a piece. If you do not like the result, you are probably stuck with it – unless you return or sand back to bare wood – so do not apply wax until you are sure all other finishing is complete.

Wax on raw timber

- Wax has its place, but it isn't the perfect application alone. Consider oil or sanding sealer as a base coat before appyling wax together.
- Clear wax will not significantly change the colour of wood.
- Be careful when using wax on 'open grain' woods, as it will build up in pronounced grain. This build up will remain soft and attract dirt.
- On most woods, wax alone will result in a low sheen and make the piece appear to be raw wood.
- Wax works well on naturally oily woods, such as cocobolo and rosewoods that may be difficult to finish with some surface finishes and oils.
- Wax alone provides minimal protection to the work and is possibly the poorest finish from a strict protection standpoint.

Cocobolo vase by Mark Baker, finished with oil then waxed

WAX TIPS

PHOTOGRAPH BY MARK PALMA

A great finish is a function of many steps. Wax can enhance the beauty of a well-executed turned object such as this bowl. Wax will not disguise tear-out, poor sanding or bad finish techniques. However, it can impart a great capstone to the project

PHOTOGRAPH BY MARK PALMA

Wax – as long as it is silicone free – has other uses beyond your finishing kit. I purchased a table saw in 1990 and the cast-iron top has been maintained with a coat of wax every three months or so. Use wax to maintain your lathe bed, toolrest and even the shafts of turning tools

- If you use a wax with steel wool – best done off the lathe – leave the steel wool in the can and only use that wax with steel wool. Metal fibres will contaminate the wax and scratch your work when you try to use it with a cloth or for other purposes. You can also sand with wax, but dedicate a tin of wax to sanding as the abrasives will contaminate the tin.
- Some people create a 'bob' to apply wax. You can also take a simpler approach. Cut a 75 x 75mm piece of sweatshirt and apply the wax with it. When finished put it in the tin with the wax. It seems to take very little additional wax to freshen this type of 'bob' before use. Cloth bobs are great when working on stationary work, but paper kitchen towel is better on work that is spinning on the lathe.
- Find a wax you like and stay with it. Each brand of wax may have different characteristics, solvents, wax formulas or cost.
- Glossy work can be toned down, and dull work can be made slightly shinier with a coat of wax. Paste wax dipped in steel wool can cut down a high gloss finish. This technique can allow you to 'dial in' a gloss level to match the look, shape and sheen of your piece into exactly what you want to convey and for the intended use.
- Wax can be used to protect metal surfaces.

How to apply wax

Unlike furniture makers, with a lathe you have the choice of applying wax either to the spinning work or to the work off the lathe. This opens the possibility to using wax in the form of a solid, as paste, and to use some waxes that are difficult to buff out in furniture work (such as carnauba based floor waxes) since you can apply friction and create heat in the process.

Every wax is either a solid or some form of wax in a jar or a tin. Solids are just that – a solid block. Solid wax is sometimes difficult to use in that state. If work is hot or oil is used as a vehicle, solid wax can be applied to the work and it will flow. Push the wax across the spinning work from end-to-end. Apply solid wax somewhat sparingly to the spinning work. If you apply a little pressure with a paper kitchen towel, you can watch the wax flow across the work. Use a fresh part of the kitchen towel to make a second pass. The goal is a thin even coat, not a heavy build-up of wax. You are not trying to encapsulate the piece, just add a small invisible layer. Exercise caution with grooves, beads and other details on your turnings. Take the time to get any excess wax out of these areas.

Alternatively, solid wax can be applied to a spinning buffing ball or disc and the work held against the buff. Solid carnauba wax held against the buff charges it, then just buff out the piece. Remember to wear a face shield for this process. This usually produces the highest gloss finish to your work.

Wax that comes in a jar or a tin is usually referred to as 'paste' wax. Paste wax can be applied either to work mounted on the lathe or pieces off the lathe. With paste wax you need patience and need to wait for the magic to happen. The goal is to let the solvent evaporate, but not let the wax harden fully. If the wax isn't buffed out at the magic stage, the wax will end up with an excessive build up and detract from your goal. The good news is that if you know what solvent was used (or when in doubt try a little mineral spirits) you can usually reactivate wax and buff it out.

Every finish is a compromise. Wax can be used as a renewable layer of protection to an underlying finish. Skin oils, minor abrasions, dust and daily life can be hard on turned work. A coat of wax can keep your work looking fresh and new year after year. Just remember to take five and touch up your coat of wax from time to time.

Finishing with wax after sanding

Power buffing can make your work shine like a classic car. Be safe when power buffing on the lathe. Remove the toolrest and put the banjo away from the action. Cover the ways with a towel. Wear a face shield and dust mask. Grasp the work firmly in both hands and recognise that the work can be 'grabbed' by the buffing wheel at any time. If so, it will throw the work into the ways and probably ruin the piece

PHOTOGRAPH BY MARK PALMA

An introduction to critique for woodturners

Jim Christiansen and **David Buskell** guide us through the world of woodturning critiquing

PHOTOGRAPHS BY DAVID BUSKELL, UNLESS STATED OTHERWISE

Critique is accepted as an important element in art and literature. Traditionally in these areas much of our learning is based upon frequent and effective critique. In the field of woodturning, however, it is often a 'thorny' issue. Many woodturners avoid critique because they have observed that the evaluation process, poorly done, often results in hurt feelings and even anger. Further, as there is little agreement regarding how to conduct effective critiques, there is a lot of confusion regarding whether or not it is a good thing.

Benefits of critiquing

In the last 10–15 years there seems to be a growing awareness regarding the benefits of getting good feedback. There are many places on the internet where makers can post pictures of their work and ask for critical feedback. Critique is also an important part of many club meetings and international symposia. Still, some issues remain:

- There appears to be no common understanding of what constitutes an appropriate or good critique. There are a few seminal resources in the field of art like *The Critique Handbook* (Buster & Crawford-Pearson) which help art students understand how to navigate the critique process. We were unable to find a similar guide for woodturners. The absence of resources to guide the woodturning critic as to how to conduct a critique likely leads to some confusion and widely differing opinions regarding how to conduct an effective critique.
- Critique is considered by many to be a negative experience. Even feedback that is positively stated and well intentioned is often viewed as a bad thing. Given this attitude, it is obvious that a way needs to be found to change this perception. There is a need to help woodturners see that a good critique is actually a positive thing. Given that we have no common frame of reference regarding critique, there's confusion and differing opinions regarding how effective critiques should be conducted, it may well be a good thing to look at the existing problems that have led us to this point…

Problems

- There is a lack of consistency as to how critiques are conducted. No training, guidance or comments can be found in recent publications (save for the 2004 article in the *American Woodturner*). As a result the critiques that are offered vary widely in content and form.
- There is no general understanding regarding the language of critique in woodturning. As might be expected, some terms traditionally used in the critique of art have come to be used in the critique of woodturnings. Such terms as 'negative space' and 'fair curve' are often interpreted differently.
- Frequently there is no thought given to the content of the critique. A critique should consider the point at which the maker is on his or her woodturning journey. Giving too much or too little information and feedback can have a negative effect.
- Little attention is often paid to how information is conveyed during a critique. The manner in which information is delivered can make a big difference. We have observed that critics who use poor communication skills while delivering feedback can really reduce the effectiveness of the critique.
- We find there is a lack of discussion by artists of their own work. Artists in many instances have not said (or even considered) their own thoughts regarding matters such as how the form or shape was decided upon, where the wood used originated, any special techniques used, what were their influences, etc. Knowing these things and knowing how to talk about your work will enable more relevant discussion and result in a better critique.
- There exists some confusion as to who is qualified to be a critic. In the arts it has evolved that only a select educated few play this role. This creates a problem for woodturners who by and large do not have the well developed traditions and standards that have evolved over a long period of time. Essentially we have collectively developed our knowledge and beliefs in the last 30 years or so. Given that a good critique can be helpful, and that poor critiques can do a lot of damage, we need to determine in whom we place such an important responsibility.

Rex Burningham and David Marks looking at the display of work to be critiqued

We believe there is sufficient agreement as to the nature of the problems we must solve to do a better job with critique. We have some ideas and recommendations that we hope will provide some guidance and be the basis for further discussions regarding how to improve how we use critique as a tool for improvement.

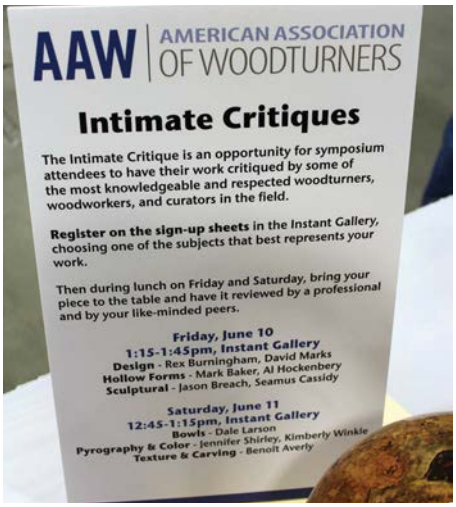
What is a critique?

The Oxford English dictionary provides an insight to the meaning of 'critique',

GUIDELINES FOR TALKING ABOUT YOUR WORK

by Marcia Goldenstein
– with her permission we have used the word 'turning' instead 'painting'

- Talk about what motivated the turning
- Talk about your thought process in creating the turning
- Talk about your choice of images (or format or stylistic approach)
- Talk about your choice of formal aspects: material/colour/composition
- Talk about how you want the viewer to react
- If the turning had some personal narrative, talk about that
- How does the turning reflect who you are? What you believe? What you observe?
- Did you learn anything by doing this turning? About yourself? About your skills?
- Are you satisfied with the turning? What, if anything, would you do differently?
- Do you have any specific questions about the turning/idea that you want addressed in the critique?



A description of the Intimate Critiques event

'critic' and 'criticism' to remind us of their origins. From those definitions, we see that a critique is generally regarded as something negative. Is that strictly true in today's world and if so, why should we still want a critique of our work? One maker suggests that '[it] makes you more thoughtful and critical of yourself as you make things' And 'a good critique is from someone you trust and respect. Take the ego out of the equation'. Critique has been around for several hundred years in other areas of art and crafts, but is a relative newcomer to the world of woodturning. The growth of exposure for our work gives makers the ability to ask a wider audience to comment on it. However, that there is a lack of information and guidelines on how to provide a good critique the quality is often an issue. Therefore, we are proposing the following suggestions and guidelines.

Some ideas to consider

There are many types and levels of critique ranging from the informal sharing of ideas and opinions to formal in-depth expert assessment. In all cases the effectiveness of the critique is heavily dependent upon good communication. We believe good communication during the critique process is based on the following:

- The critic should show proper respect for the work. This begins with taking sufficient time to examine the object being evaluated. Critiques based on a cursory examination often lead the maker to feel diminished, work that is held carefully and examined from all angles and even 'caressed' makes the creator feel that the critic is involved and seeking to understand the piece. We recommend that critics always handle turned art like they would a sacred object. You can't go wrong if you visualise how most people look when they hold a newborn child.
- It is important to manage the content of the critique. It is generally a good idea to balance suggestions for improvement with a discussion of positive attributes. It helps to avoid statements like: 'poor', 'bad', etc. So saying 'this line has a flat spot', rather than 'this line is poor' is a better way. When giving feedback the critic may have a long list of issues to point out. Giving too much information can be discouraging, especially to beginners. We recommend discussing one or two suggestions for improvement at a time. Too many criticisms can lead to hurt feelings and cause discouragement.
- Involve the maker in a discussion of their work. Learning how to talk about their work can lead to a better understanding of design process and concepts. Merrill Saylan provided us with an excellent list of guidelines for talking about your work written by Marcia Goldenstein. The list can easily be adapted to help turners discuss their work – page 79.

SOME THOUGHTS FROM MOLLY WINTON

The first pieces I produced with what is now my signature style, were hollow vessels with a Grecian, classical form and finished off with ebony collars. They were a blatant copy of the forms Art Leistman was producing at the time. I had never made hollow vessels before, and I admired his work, so used his forms as a place to start mine. I made his style of vessel and applied my primitive designs on the surface.

With pride I took them with me to the 2004 Utah Woodturning Symposium in Provo, Utah, and displayed them in the Instant Gallery. Reports from friends were that Ray Leier (co-owner of del Mano Gallery) had been seen looking at my work, and taking notes. I knew I had been 'discovered'! Alas, during the following months I heard nothing from him. I did however, hear from Don Derry. At the time we had never met, but he emailed me his interest in my work stating he thought they were 'breakthrough pieces'. Through subsequent conversations he offered me a critique. I jumped at the opportunity. We met in his living room. He asked pointed questions related to my choices and thought processes when making my pieces. 'Why did you choose this form?', 'Why do you have the collar?', 'Have you considered the various elements of your design and how they flow or compete with one another?' and so on. It was invigorating, thought provoking, nerve wracking, and powerful!

As a result of the critique I made modifications and changes to the forms I used. I was more thoughtful and deliberate in the compositional structure of my new work. The following summer, one year after the 2004 Utah Symposium, I brought my new pieces to the 2005 AAW Symposium in Overland Park, Kansas. I was arranging them in the Instant Gallery when a gentleman walked up beside me and commented: "Those are nice. Didn't you have similar work last year in Provo?". I said: "Yes, but I've made some changes." He handed me his business card, saying: "You sure have!" and asked if I'd send him images of more of my work. Looking down at the card it read, Ray Leier, del Mano Gallery. I was invited to participate in their Small Treasures Exhibit. The difference between being noticed, but dismissed in Utah, to being invited to participate in an exhibit hosted by del Mano, was Don Derry taking the time and consideration, to offer and perform a valuable critique. Needless to say, I am a strong proponent of thoughtful, constructive, professional critiques.


PHOTOGRAPHS BY MOLLY WINTON
Molly's turned work before the critique...


... and post critique, making changes according to the comments she recieved

- Feedback should include both execution/ workmanship and artistic/aesthetic elements. How well the work is made is always important. Sanding scratches, torn wood grain and finish problems seem to be the most frequent and easily recognised issues related to workmanship. Critiquing the artistic value of a piece is more difficult. There are many differing ideas as to what is good or bad in this area. Therefore we suggest that the reviewer not state artistic opinions as fact. When possible the reviewer should mention other viewpoints and ideas to consider. We should not forget that familiarising ourselves with the great traditions and styles of related art can help us learn more about the possibilities for greater understanding and improvement.
- Vocabulary and concepts need to be clearly presented. In some instances, the background and knowledge of the critic is different than that of the individuals receiving the review. So the use of unfamiliar vocabulary terms can create confusion. David Ellsworth noted that we need to do a better job in this area, "…we don't provide them with language. What does it mean when we say 'search for the self in self expression?' or 'find your own voice? How can we do that if we don't give them the tools to grasp the concept?" One answer to this question is to carefully define vocabulary and concepts. David Ellsworth suggests another way. He says: "when I teach design, I emphasise the process of making from the log to the finished object. Concurrent to this process of making is the student's self-awareness in developing a form – shifting the shoulder into a belly, raising the neck, squishing this, expanding that – so they develop their own language whereby self-awareness becomes self-criticism."

The role of the critic is an important one. We believe that a good critique can help turners create better work. Conversely, a poor critique can have a profound negative effect and can hold us back from reaching our full potential. We also believe that a review by an expert that is skilfully presented has a great potential for education and improvement. Critique by peers also has the potential to be helpful. Critiques need to be positive in order to avoid bad outcomes. We all know how to offer praise but we do sometimes have to 'bite the bullet' and make a negative comment to someone. Ray Key said: "it is my view critiques have to be for the most part positive rather than negative, the negatives have to be there but it is the way you deliver them that matters." Finally, we believe the integrity of the critique process is based on truth, but truth in measured doses. We can all learn from each other if we find ways to communicate effectively. For more information visit: http://tinyurl/gmarttg.

JOY'S STORY

Joy is a woodturner from Michigan, who has been turning for nine years. She returned to turning at the end of 2015 after a two year break due to medical issues. She attended her first AAW symposium in Atlanta and saw that the programme included 'intimate critiques' with a well respected turner or turners. Joy had been concerned to know if her skills are good and if her turning is taking the right path. Her only previously experienced critique was at her local AAW Chapter and while all comments were positive, she wanted an unbiased critique by professionals.

Joy submitted a sycamore (*Acer pseudoplatanus*) bowl for critique and on the day of the critique she did not know what to expect, only that the turners that would review her and others work would be independent and have a broad range of knowledge and experience.

The critique was undertaken by Rex Burningham and David Marks, plus a crowd of other turners who had gathered around! Both Rex and David examined and picked up her work and made comments, both positive and negative and, of course, the other turners also chipped in with ideas, thoughts and comments. Any not so positive comments were made in a kind and constructive manner which was really appreciated.

Overall Joy found the critique was good and provided her with a wide range of comments to ponder on for future pieces. The critics agreed that her work was on the right track and gave suggestions of technical points to include in future work, for example to work for a consistent thickness for the sides of bowls.

Joy, having gone into the critique process with an open mind, took away good ideas which will enable her to move her work to another level. Joy's advice to anyone coming into woodturning would be to make something you like – you can't sell it if you don't like it!

Rex Burningham and David Marks inspect and give comment on Joy's piece

Joy happily took on board what the turners had to say


Joy with her sycamore bowl

5 simple steps to achieving the perfect finish

The Editor provides five easy steps to finishing your woodturning projects

We all know that no matter how much time is spent on creating a great turning, it can all be ruined by poorly prepared surfaces or a choice of finish that does not do what one wants it to do, or one that has been badly or incorrectly applied. Well, here are a few tips – yes, you might already know them, but a reminder is always helpful – that will help you get better finishes on your work.

PHOTOGRAPHS BY GMC/MARK BAKER

1. Surface preparation is vital for success

Everyone is at different stages in their turning, and we all work with different woods. Skill level turning-wise and how woods take to cutting vary considerably. Don't worry, do the best you can in turning, then select the coarsest grit grade necessary to remove the damage you have left after turning – be that uneven surface or grain tearout. Some turners brag about being able to start at 200, 300 grit or so. It is not a competition, don't get sidetracked with what others do. No one knows what grit grade you started at, all people see is the end result. Be honest with yourself. If the damage is severe and you need to start at 100 grit or coarser, do so!

The first grit grade selected must remove the damage. Once the damage is removed, work sequentially through the grit grades – do not jump grades – the subsequent grits remove the scratches left from the previous grades, getting so fine that they cannot be seen.

With most of the timbers we use in turning, working down to 400 grit is fine for use with waxes, oils and lacquers as finishes.

If, however, you are planning on painting a surface, 240 grit is often good enough so you provide a good key for the pain to lock onto. If you are working on very dense close grained timbers like ebony (*Diospyros* spp.), boxwood (*Cornus florida*), cocobolo (*Dalbergia retusa*) and such, you might have to go down to 600 or finer still. If you do not get the sanding right, the blemishes and scratches that remain are highlighted by the finishes applied – even more so when using dyes.

Oh, and I forgot to mention, remember when sanding to use at-source extraction, PPE and any other methods to minimise exposure to dust. Also, before you apply any finishes, remember to remove all dust from your work, make sure you have a dust-free atmosphere, and that there is no loose dust about that you can disturb around you when applying finishes. It can easily contaminate any finish you apply.

2. Selecting an appropriate finish

Simply, the finish selected must be right for the intended function of the product. If it is to be used for storing food or holding food items, the piece must have a finish that is suitable and safe for contact with food.

If the item is to look pretty and be admired and on display, then the finish must look the way you, the maker, want it to look. Dyes, stains and colours of all kinds can be used to enhance the timber and various surface finishes, oils, waxes, lacquers and so on can be used to seal and enhance the piece further and provide a gloss, matte or satin look as required with varying degrees of durability.

3. Always try a finish out on waste wood

Experimentation is always key to good results. We might have an idea of what finish and look we want for our work, but in truth we are never quite sure whether what we think will happen is what will happen in real life. Experience counts for a lot, but it is not infallible especially when trying out something new look wise or a new finish.

Best practice – and it can save a lot of frustration and tears later on – is to apply the finish, colouring agents and decorative effects too if you like, on waste wood before you apply it to your turnings. You can then see what the look is really like, rather than just in your imagination, and make a truly informed decision as to whether that is what you want or whether it needs something else or doctoring in some way too. Always keep the sample boards for future reference too.

4. Always follow the manufacturer's instructions

We all should, but how many do? Do we all follow the instructions when assembling a flat-pack piece of furniture? Just because we think we know or we have used something similar before or, have not experienced problems with similar items, we think everything else will work or can be used in the same way. Wrong! Drying times, mixing and application methods, thinning rates, darkening effects, coverage, health and safety implications – due to solvents and materials used in the product – vary considerably from product to product.

5. Don't rush things

It takes time to prepare work properly prior to applying finishes and allowing them to dry and cure properly. You rush things and all too easily mistakes happen and all your hard work comes to nothing. ●

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PHOTOGRAPHS BY PHILIP GREENWOOD

Methods of sanding

In part 8, **Philip Greenwood** talks about how to sand work to a fine finish

PHILIP GREENWOOD

Philip has been woodturning since 1980 and started turning professionally in 1986. He was accepted onto The Register of Professional Turners in 2006. He is a member of the AWGB and AAW. He can be seen working in his workshop in North Yorkshire with many of his items on display. From here he runs courses and he also demonstrates at clubs around the UK.

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

For such a simple sounding part of the turning process there is a lot to know about sanding the finished piece. I have seen some well turned pieces which have been let down by bad sanding. Knowing the correct method to sand and also how to sand correctly can improve the finish. Incorrect methods can be dangerous when sanding natural edge work and the inside of vases. One of the main problems I come across is people rushing the process and missing grades out. Sanding need not be a long process if done correctly, and will show that the process has been carried out correctly on your finished piece. Remember when you apply the finish it will show every scratch mark on your item. This article is about the methods I use every day in my workshop. Dust extraction is always needed as well as a dust mask when sanding and any time spent in the workshop.

SPEEDS AND PROBLEMS

I tend to sand around 500rpm on a 150mm bowl or 800rpm on a 50mm spindle. These are a guide, so if your lathe has fixed speeds choose the nearest. Why a low speed? Fast speeds create more problems. When using abrasives hold it lightly to the surface. You should never feel more than slight warmth coming through, if you feel a lot of heat you are pressing too hard. A problem on the inside is an area on the end grain which still has marks on the surface. This is due to too high a speed and the abrasive not contacting the surface fully if the bowl has moved.

A common problem on end grain timber is heat check, caused by the timber surface becoming too warm and splitting. This is due to applying too much pressure or sanding for too long (common on dense and exotic timbers). Radial marks are normally caused by rushing through grades and not removing the previous abrasive mark.

FREEHAND

Always go through the grades, as skipping a grade will leave marks from the coarser grades. Start with the only the coarsest grade that is needed, if this is 240 that is fine. Don't start with 120 as this just means more sanding through the grades. I use 120, 180, 240, 320 and 400 (if needed I go beyond this to as fine a grade as is needed for the item). Sand at around the 7 o'clock position, unless the bottom of the item is close to the lathe bed, then sand at 5 o'clock to avoid any risk of fingers becoming trapped. On spindle work with the lathe stopped you can always sand by hand with the grain between grades to remove any radial marks. Check the finish after the first grade for tool marks before moving onto the next grade.

Using a dust extractor

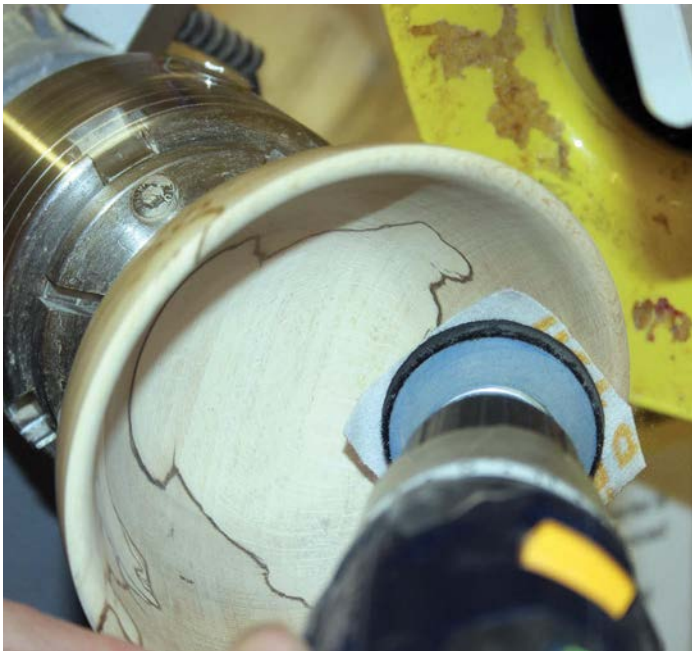
Positions for sanding

Sanding with the grain

DRILL WITH SANDING ARBORS

One method that is very good for sanding the inside of bowls is with a cordless drill and a sanding arbor. This is a quick method of sanding and will not leave you with radial marks. I use the right side of the pad on the right side of the bowl and the left side of the pad on the left; this means the pad is rotating in the opposite direction to the bowl rotation. Have the lathe running at around 500rpm for a small bowl with the drill running at full speed. Go through all the grades as normal.

Sanding arbor for a drill



Sanding the inside of the bowl

ROTARY SANDING (SIMON HOPE TYPE)

This type of sanding uses an arbor held in a bearing, which relies on the arbor. Loaded with abrasive, this is presented at a sheer angle which causes the arbor to rotate freely against the work. This I find best on vases, bowls and spindles with little detail. The speed needs to be higher so the head will rotate, especially near the centre of a bowl. On the outside press the pad onto the rotating item so the point of contact on the pad is just off centre so the pad will spin. Like any sanding go through all the grades needed. This type also means your hands and fingers never go inside the vase when sanding.

Presentation angle

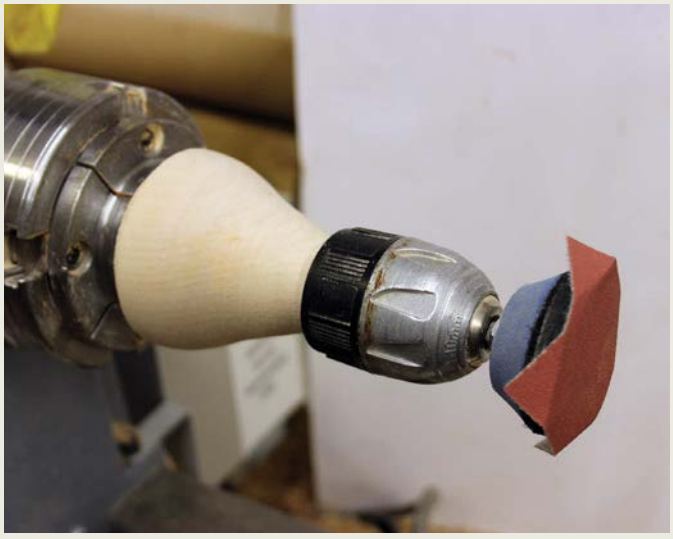
Sanding inside a vase

ACCESSORIES FOR SANDING

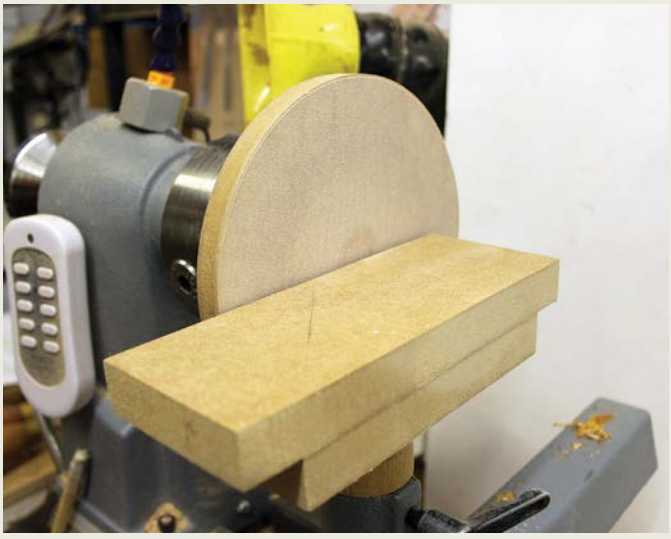
Sometime I use other accessories when sanding. One is a piece of timber with Velcro stuck on the end to hold the abrasives for sanding inside a vessel. One that I use a lot for natural edge work is a drill chuck mounted in the chuck so I have both hands free to hold the item. This is also useful for finishing the base of a bowl.

A useful item if you don't have a disc sander is a piece of MDF with a self-adhesive disc stuck on, and a homemade sanding table which fits on the toolrest assembly. This is ideal for sanding edges of items or shaping components. ●

Home-made sanding jigs



Drill chuck with an arbor



Sanding table

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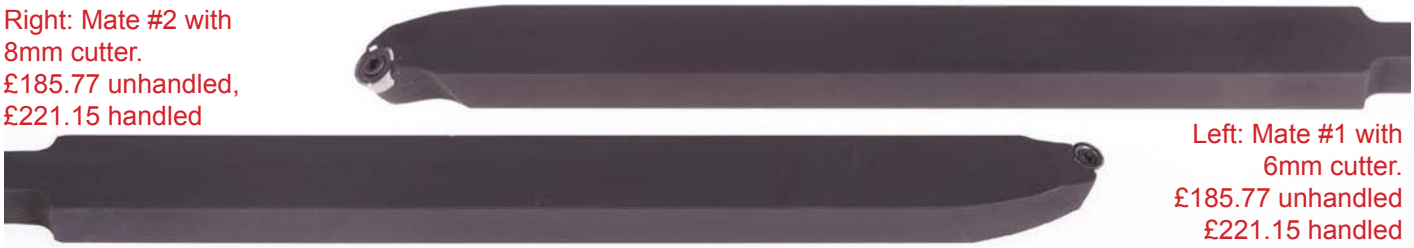
When Jimmy Clewes is your Mate, you'll not go far wrong in woodturning!

When you enjoy a reputation as revered in woodturning circles as that of Jimmy Clewes, you don't lend your name to a product unless you have 100% confidence in it, in all respects. Jimmy is a great fan of Hunter carbide tipped tools. Not just any carbide tools, note: only Hunter carbide tools. Jimmy has 'Mates' wherever he goes but here are two Mates which he designed to be *your* Mates! The e two tools will enable you to hollow bowls, boxes and forms easily and safely. The cutters are self-limiting on cutting depth and the tools are used simply laid fl t on the rest. Equally at home in side- or end-grain, wet or dry and in the very toughest of tough timbers.

Right: Mate #2 with 8mm cutter. £185.77 unhandled, £221.15 handled



Left: Mate #1 with 6mm cutter. £185.77 unhandled £221.15 handled

Osprey #1 & #2 Gouges

Wouldn't it be great to have a gouge that never needs sharpening? A gouge that's really stiff so that it can be used way over the toolrest in deep work? The e super-gouges are at home on spindles or bowls, inside or out. Super sharp yet never needing sharpening, these are the tools that turners everywhere have dreamed of owning. Dream no more: the reality is here, the dream made fles - sort of!

Left: Osprey #1, 3/8" dia. shaft, 6 mm cutter £84.97 handled; £76.46 unhandled

Right: Osprey #2, 1/2" shaft, 8 mm cutter £88.37 handled; £78.17 unhandled

Hercules & Mini-Hercules Roughing Tools

The very name Hercules gives a hint of what to expect of this mighty tool and its junior sibling! The e tools work effectively in almost any application: roughing, bowl hollowing, deep hollowing and even spindle turning. The Mini is findi g great favour as a universal roughing-to-finishi g gouge for pen-making. Versatile and so easy to use. The defi tive "point and shoot" woodturning tool!

Right: Mini Hercules, 3/8" square shaft, 6 mm cutter. £87.24 handled; £79.30 unhandled

Left: Hercules, 5/8" shaft with 10 mm cutter. £93.47 handled; £84.97 unhandled

Jimmy Clewes Design - #5 Hunter Hollowing Tool

Jimmy Clewes worked with Mike Hunter to develop the Hunter #5, one of the most impressive tools you'll ever use. With its sturdy, 5/8" diameter round shaft the tool can be used to shear a cut to left or right, takes deep hollow forms easily in its long and strong stride and yet is suffici tly agile to make it a delight when turning bowls and creating in-turned rims - almost as versatile as Jimmy himself! Now also available with a swan-necked stem, in both inboard and outboard versions, to make getting into those hard-to-reach spots a whole lot easier- yet losing nothing of the heft nd solidity of the original Clewes #5 Tool.

Left: Swan-neck #5 tool £118.98 handled; £110.47 unhandled

Right: Hunter #5 tool with 10 mm cutter. £101.98 handled; £93.47 unhandled

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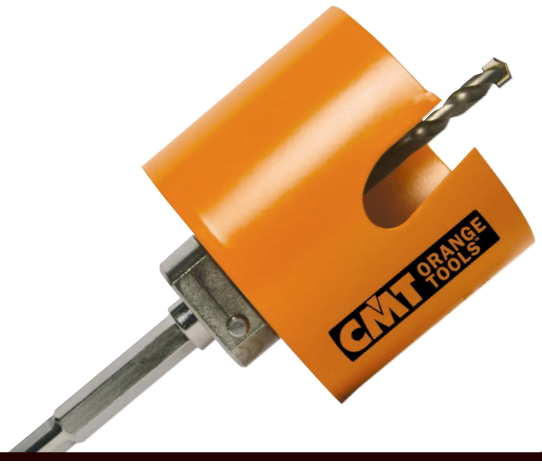
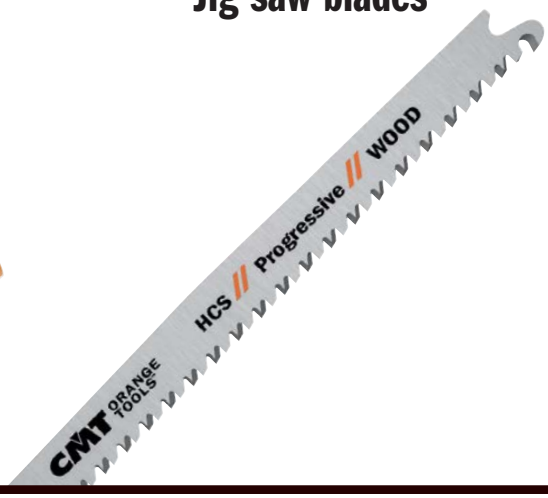
Hole saws



Jig saw blades



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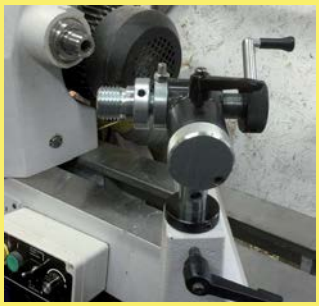

Jig comes with 20 tpi and 16 tpi threads. Chuck thread is m33 x 3.5. Stem is 1" as standard (other stem sizes available). Price includes high quality HSS cutter.

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Call Simon on 01206 230694 **email: hopewoodturning@gmail.com**

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

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Contact: BriMarc
Tel: 03332 406 967 **Web:** www.brimarc.com

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Contact: Tim Yoder
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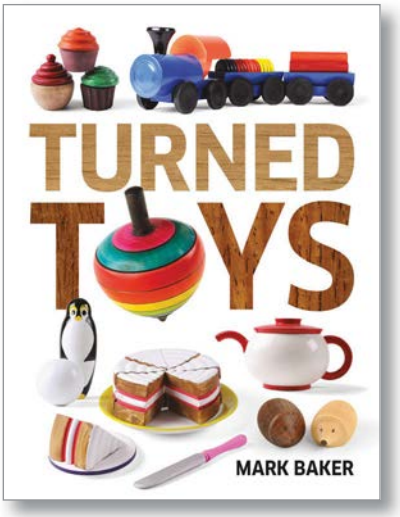
By Mark Baker



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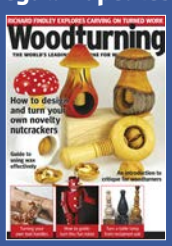

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Jennie Starbuck – 'Light and Shade'

Inspired by lace, take a look at **Jennie's** bright and beautiful lampshade

Inspired by a 1850s Brussels lace parasol cover in the lace collection at Waddesdon Manor, this table lamp expresses my love for creating decorative thin turned work, which can be pierced. Unusually for me, it is also functional. Lace is a medium in which I feel the holes become the art work. They are framed by the intricate knots of fine cotton thread, so it is with thinly turned, pierced wood. The wood frames the design. However, there is a further dimension. Light makes pierced pieces come alive and gives another element to the viewing experience, because light can create fantastic patterns and shadows around the piece. As part of the design process, I explored the patterns of light passing through the pierced lacework of the parasol-shaped shade, including the colour of the light and the effect of the projection of the light on the ceiling and the surface it is standing on. I settled on using a programmable LED bulb with its own remote control. The colour and intensity could then be controlled to suit the room setting. Modern LED bulbs do not get hot, which makes it possible to make a shade without a large hole for the heat to escape.

This piece originally started as a 380 x 100mm sycamore (*Acer pseudoplatanus*) blank. Apart from the rim, which is slightly thicker to allow for safe handling, it is an even 1.4mm thick. I really enjoyed the design experience and turning it was deeply satisfying.

Email: jennie@artycraftywoodturning.com
Web: www.artycraftywoodturning.com

All Star Axminster Hobby Series lathes for the discerning woodturner

Whether you are about to take up the hobby of woodturning or have been turning for a couple of years, Axminster can offer everything you need, from entry level lathes to chuck starter kits.

AH-1218 £249.96 Inc.vat 505020

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

AH-1218VS £299.96 Inc.vat 505021

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

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

AWSL £199.96 Inc.vat 501245

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

AXMINSTER THREE YEAR GUARANTEE

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

Chuck Starter Kits

Packed into a strong plastic storage box, these starter kits include a set of dovetail jaws (size C), a matching faceplate ring and a screw chuck. This gives plenty of scope from mounting blanks for initial turning to final completion of another well executed project. All you need to do is choose the chuck thread to suit your lathe.

Clubman SK100

£169.96 Inc.vat

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101966 T04M
101967 T01
101968 T23

Clubman SK80

£149.96 Inc.vat

101969 T04M
101970 T01

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So sure are we of the quality of the Clubman SK100 and SK80 chucks, we cover all parts and labour free of charge for five years!

AWVSL 1000 £395.96 Inc.vat 501268

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

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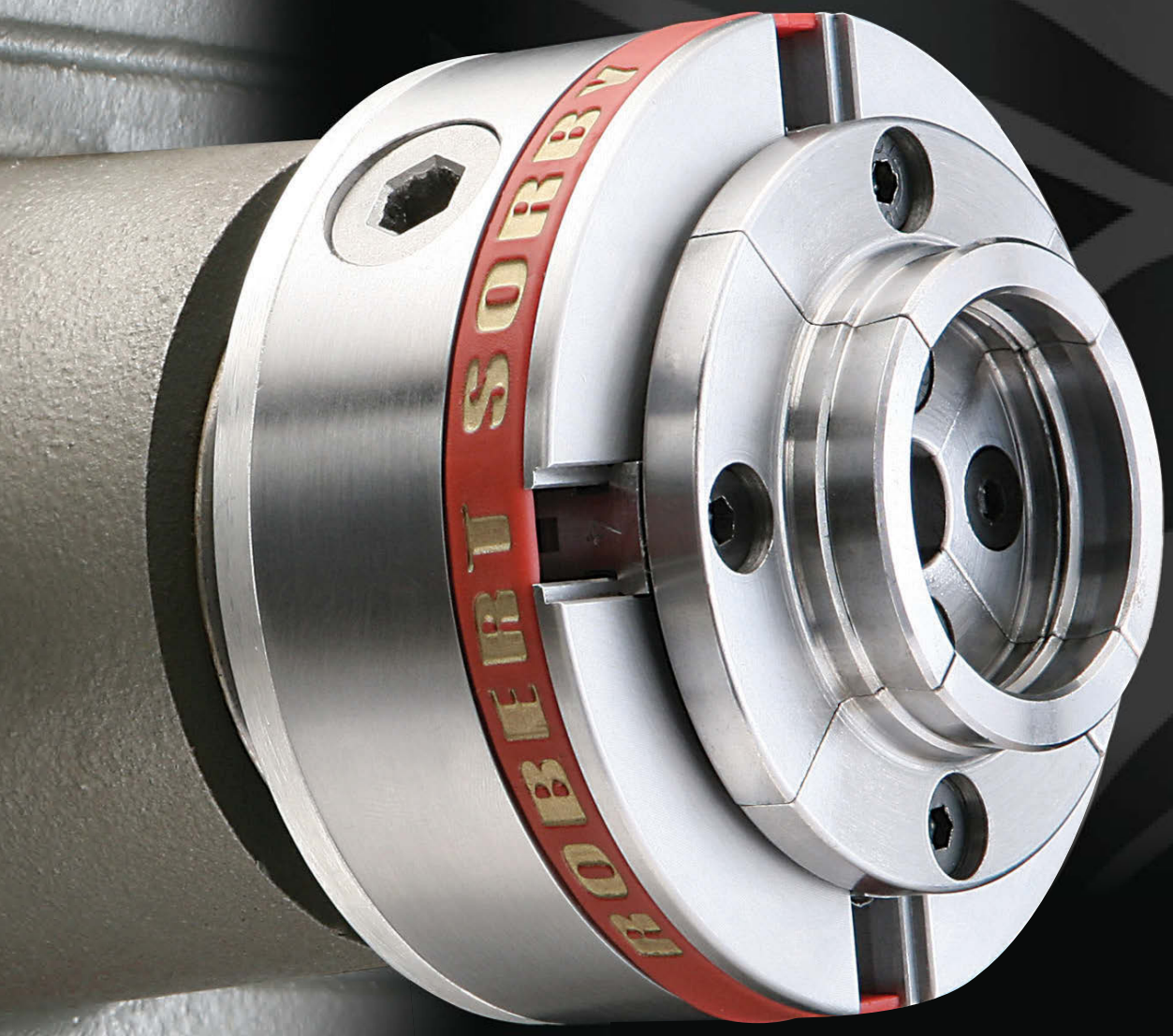

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