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January 2019

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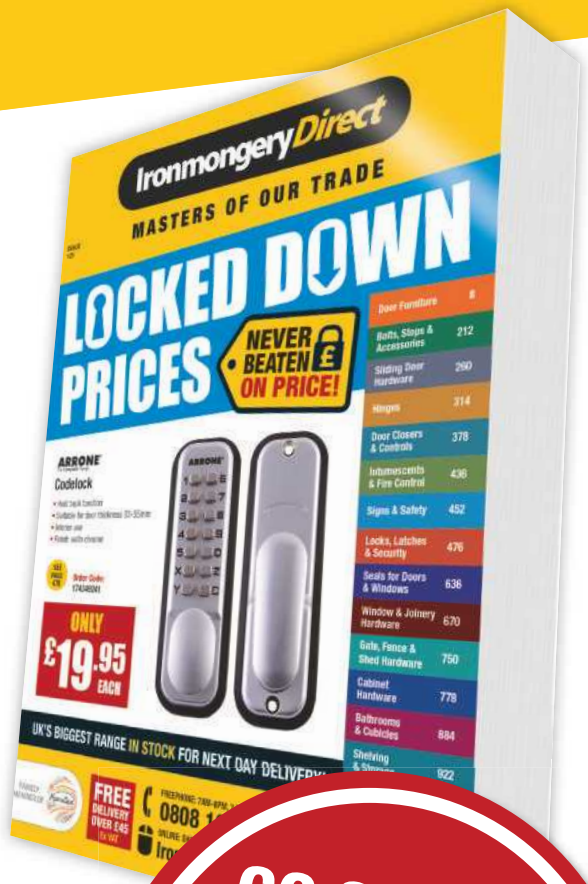

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Welcome

Each year, thousands of woodworkers, young and old, male and female, flock to the much-anticipated North of England Woodworking & Power Tool Show, or the 'Harrogate' show as it is otherwise known. Now in its 26th year, this event is loved by all who attend and I myself was very honoured to be there again this year, meeting readers, answering questions, avoiding the odd bit of criticism, and doing my best to encourage non-readers to subscribe. It's amazing how many faces you recognise over the years, and it was lovely to see a few familiar ones, all of whom came over to say hello and comment on how much they were enjoying the magazine. One friendly gentleman told me how he was currently making his own version of 'Gilly' the rocking giraffe for his grandchildren, and another how much he enjoyed the mix of content as there's always something for everyone. It was great to meet a recent competition winner too, who was thrilled to have had her workbench featured on our letters page some months ago. She left the show with a smile and a healthy pile of woodworking kit, helped by her seemingly long-suffering husband!

Our friend Terry

Despite all the friendly faces, however, there was one who made our weekend, and that was our friend Terry, who came to the stand last year. Sadly, his vision had been so badly affected by cataracts that he could hardly see, but this did not diminish his love of woodworking – particularly woodturning. We were so happy when he visited our stand on the Saturday, and were filled with such emotion when he announced that his vision had indeed been fixed and that he could now actually see! This was such a heartwarming moment and we practically jumped up and down for joy at this news! Armed with boxes of chocolates for my colleague and I, Terry seemed to have been given a new lease of life and eagerly went around the show picking up new kit and woodturning bits and bobs, before requesting a selfie with us before he left!

A fantastic event

When the crowds quietened down, this was the perfect time to walk around the hall, meeting authors both current and past (Andy King and Peter Sefton, to name but a few), as well as seeing new pieces of kit in action (such as the PantoRouter, which will be tested by John Lloyd very soon), and generally enjoying the friendly ambience. As with last year, Andrew Hall entertained visitors with his 'Blues Bowl' renditions, and Tony Wilson was covered from head to toe in wood shavings, but that didn't stop him from smiling. All in all, this was another fantastic event and early reports show it to be the most successful to date, so thank you to all who attended and we hope you had a most enjoyable time.

Tegan

Email tegan.foley@mytimemedia.com

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Technical & Consultant Editor

Dave Roberts
Consultant Editor

SEND IN YOUR TOP WORKSHOP HINT OR TIP & YOU COULD BE IN WITH A CHANCE OF WINNING A **VERITAS LOW-ANGLE JACK PLANE** – WORTH OVER **£250!**
See page 47 for details

66 THE PUNT: A POLE APART FROM OTHER RIVER CRAFT

John Greeves talks to Andy Lonnen about his enduring passion for punt building

WIN!

1 of 5 Triton SJA100E SuperJaws portable clamping systems – worth £88.33 each!
See page 22 for details on how to enter – good luck!

The Woodworker & Good Woodworking
JANUARY 2019

PROJECTS & TURNING

TECHNICAL

ON TEST

FEATURES

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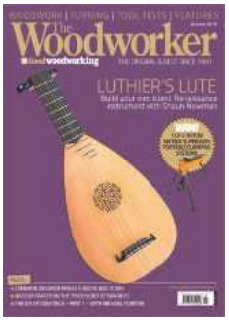

OPEN HOUSE AT AXMINSTER TOOLS & MACHINERY

Talented young woodworker and YouTube star, Matt Estlea

It was a cool and blustery autumnal Friday in September when Axminster Tools & Machinery opened its doors to the public, welcoming over 200 visitors to the HQ on Weycroft Avenue in Axminster, Devon.

Visitors were able to experience around 40 demonstrations and get hands-on with many tools and machines. Among the demonstrators were some familiar names, including Robert Ingham – distinguished maker of collectable boxes and unique pieces of furniture; Peter Parfitt – inventor of the UJK Parf Guide System and Parf dog; Matt Estlea – talented young woodworker and YouTube star, and Colwin Way – international woodturner.

HQ folk and many staff from all of Axminster's eight stores were involved, showcasing their expertise and woodworking skills. Some of the more quirky demonstrations from Axminster staff included cricket bat shaping, and there was also the 'hard point challenge' (looking for the fastest time in which to cut through a piece of 2×4) with a prize of a set of three Axcaliber saws. Plus, Product Development Director Ian Styles demonstrated the 'Ultimate Edge' – a new sharpening product. Wentworth Timber, who supply all the Axminster stores, were present as were UKMSA (Men's Sheds Association) displaying the kinds of things they make (local Axminster stores work closely with local 'shedders'). Approximately 160 visitors signed up for the guided tour around the site. An Axminster director led each tour, taking visitors to the engineering facility where woodturning chucks and accessories, bandsaw blades and many products in the UJK Technology range, are manufactured. Other points of interest on the tour route were the Skill Centre and warehouse, which was fully operational on the day.

To keep warm, visitors were able to take advantage of the free tea, coffee and biscuits on offer, plus Axminster offered a 10% discount throughout the day.

Managing Director, Alan Styles, said: "It's been a while since we had an event here at HQ, but I think the day went pretty well. I led some of the tours and have had some very enlightening comments and questions from visitors. One of the most positive pieces of feedback is how pleased our customers are to see the return of the Axminster catalogue."

Proceeds from the open day were donated to the British Heart Foundation. For more information, see **www.axminster.co.uk**.

Inventor of the UJK Parf Guide System and Parf dog, Peter Parfitt

DIARY – JANUARY

15* Pen turning
15–16 Wood machining
15–16 Woodturning
21–25 Windsor chairmaking
24–25* Routing
28 Pen turning
29* Tool sharpening
29–30 Bowls & platters
29–31 Adirondack chair
* Course held in Sittingbourne, Kent
Axminster Tools & Machinery
Unit 10 Weycroft Avenue
Axminster, Devon EX13 5PH
Tel: 08009 751 905
Web: www.axminster.co.uk

11–13 Woodworking skills – portable bookcase project
13–18 Chairmaking – make a traditional Sussex chair
17–20 Wildlife woodcarving in relief
30–1 Spoon carving with traditional tools
West Dean College
Nr Chichester, West Sussex PO18 0QZ
Tel: 01243 811 301
Web: www.westdean.org.uk

12–13 Dovetailing weekend
14–18 Router skills
25–28 Beginners' four-day course
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Tel: 01943 602 836
Web: www.christribefurniturecourses.com

8 24-week woodworking course
12, 13, 19 & **26** Drills in a day
20 Introduction to woodturning
27 Cigar box guitar
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Whether you're furniture or cabinetmaking, woodworking or winter-proofing your workshop, the new Machine Mart catalogue has all the tools and equipment you need. Packed with over 1,600 new products and massive price cuts, the new 500 page autumn/winter catalogue is a 'must have' for woodworking enthusiasts wanting huge choice at unbeatable value.

Machine Mart offers a superb range of woodworking tools and machinery including sanders, saws, lathes and log splitters along with a wide range of heaters and cast-iron stoves, plus much more. To request your free copy, see **www.machinemart.co.uk**.

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Web: www.aharrisonwoodturning.co.uk

Bennetts Timber (Lincolnshire)
Tel: 01472 350 151
Web: www.bennettstimber.co.uk

Black Isle Woodturning (Scotland)
Tel: 07842 189 743
Web: www.blackislewoodturning.com

Brodies Timber (Perthshire)
Tel: 01350 727 723
Web: www.brodiestimber.co.uk

Brooks Brothers Timber (Essex)
Tel: 01621 877 400
Web: www.brookstimber.co.uk

C&G Barrett Ltd, Cilfiegan Sawmill (South Wales)
Tel: 01291 672 805
Web: www.cilfiegansawmill.com

Clive Walker Timber Ltd (West Yorkshire)
Tel: 01132 704 928
Web: www.clivewalkertimber.co.uk

D Emmerson Timber (Lincolnshire)
Tel: 01507 524 728
Web: www.emmersontimber.co.uk

Earlswood Interiors (West Midlands)
Tel: 01564 703 706
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English Woodlands Timber (West Sussex)
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Web: www.thetimbermill.com

The Wood Recycling Store (East Sussex)
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Web: www.woodrecycling.org.uk

Thorogood Timber Ltd (Essex)
Tel: 01206 233 100
Web: www.thorogood.co.uk

Timberman (Carmarthenshire)
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Web: www.timberman.co.uk

Tree Station (Lancashire)
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Web: www.treestation.co.uk

UK Timber Ltd (Northamptonshire)
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Web: www.uk-timber.co.uk

Waterloo Timber Ltd (Lancashire)
Tel: 01200 423 263
Web: No website

Wenban Smith (West Sussex)
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Web: www.wenbans.com

Wentwood Timber Centre (South Wales)
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Web: www.wentwoodtimbercentre.co.uk

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Tel: 01798 861 611
Web: www.wlwest.co.uk

Yandle & Sons Ltd (Somerset)
Tel: 01935 822 207
Web: www.yandles.co.uk

THE BOSCH 12V SERIES: MUSIC TO THE EARS OF INSTRUMENT MAKER LEO BINETTI

Leo Binetti's universe revolves around restoring, repairing and replicating antique string instruments – lutes, mandolins and guitars. Since his youth, the instrument maker from Prato, Italy, has been pursuing a dream of devoting himself to this traditional craft. He first attended a vocational school, enabling him to open his own workshop afterwards. "What I like about my job is the manual element; I have the chance to create something with my own hands," Leo explains.

"I love to work with a material as wonderful as wood, and to see an object grow from it that has a sound, a soul." However, Leo does not see practising this ancient craft as a reason for only using traditional tools. He uses cordless versions, which enable him to meet his high standards of precision, speed and efficiency. "When I choose a power tool, it needs to be precise because precision is essential in a craft like mine. It must be of a high quality and durable – it also needs to be professional. It has to be easy to handle because lightweight tools that are convenient to operate make my daily work easier and make for a better outcome," Leo continues.

Cordless tools give voice to instruments

It takes 1-2 months and different work steps to build an instrument such as a guitar, mandolin or lute. Completing this process depends on cordless tools by Bosch Professional: the GSR 12V-15 FC Professional FlexiClick drill driver, the GHO 12V-20 Professional cordless planer and the GKF 12V-8 Professional cordless edge router. All three tools are powered by high-performance 12V lithium-ion batteries, bringing Leo two benefits. He can choose from seven different battery sizes from 1.5 to 6.0Ah depending on the application; in addition, the 'Flexible Power System' means that the 12V batteries are compatible with all Bosch tools and chargers in this voltage class.

The GSR 12V-15 FC Professional FlexiClick Drill Driver is the shortest cordless drill/driver in its class, and is well equipped for precision work in tight spaces with its four adaptors – a lockable bit holder plus a drill chuck, offset angle and angle screw adaptor.

Screwing an instrument's body together, securing the neck, winding up the strings – Leo uses the handy cordless drill/driver for all of these jobs. "The different adaptors make every work step easier, from fine work such as fitting the tuning pegs through to tensioning the strings, even in areas that are hard to reach."

The GHO 12V-20 Professional cordless planer and the GKF 12V-8 Professional cordless edge router are in constant use in Leo's workshop. The cordless planer is needed for an earlier work phase, when the neck of the instrument is rounded. In terms of weight and size, it is comparable to a traditional hand-held planer. The instrument maker uses a cordless edge router to fashion the sound box.

The edge router has a particularly narrow handle, meaning it can be easily controlled with one hand. From the first rough milling mark to the tiniest final details, Leo's work is effortless as he follows the instrument's curved lines with ease. "For me, it is really important that my tools are easy to handle; a lightweight tool that I can use without effort improves the quality of my work enormously. It enables me to be extremely precise, and that is what my craft is all about," says Leo as he sets to work on his next guitar.

To find out more about Bosch tools, see **www.bosch-professional.com**.

TOOL UP: A NEW APP IS SET TO CHANGE THE WAY WE FUND OUR DIY PROJECTS

If you've ever priced up a new home improvement project and winced at the cost of both the materials and tools, you'll know that for DIYers and tradespeople, it's a costly business. But that's changing, thanks to a pioneering new app called MyShed, which aims to give UK DIY enthusiasts a way to complete their projects for a lot less.

MyShed connects people who have tools with those looking for cheap rental. So not only can tool owners earn cash to spend on their projects, short-term tool users can rent them at a fraction of the cost of buying or hiring from the high street, so their project is cheaper too.

Power drill lying in the garage? Make some cash out of it. Socket wrench set you got for Christmas and only used once? Use it to fund your next project. Wondering how to afford a rotary hammer you'll only need for half an hour? Get your MyShed app out and borrow it from a neighbour for a small fee. It's DIY for the tech age: cheaper and easier.

But MyShed is about more than just saving money; it helps those who want to share the things they own, rather than buying more things which are just going to lie unused. This 'sharing economy' reduces our environmental impact and goods production, and it helps you build connections with those in your local neighbourhood too. Good news for everyone.

MyShed launched in May 2018 and is live across the UK. "We're really excited about how this will revolutionise DIY. Less storage, less hassle and all while saving and making money. It just makes sense," says founder Steven Attwood. "Why buy a tool when you can rent it from the person next door? This app connects you to those who can help."

MyShed is free to download on iOS – just search the AppStore for '**MyShed**', then you're just a few clicks away from hiring cheap and convenient DIY tools, or making cash out of your unused tool shed or garage contents. If you're a tool owner, hire out your tools by creating your 'Shed' and name a price for the tools you've got for hire. If you're looking for tool rental, then check out the 'Sheds' in your area and find tools to rent nearby.

So, if you're envious of your neighbours getting their decking done before you, or revamping their kitchen while you're still working out the budget for your project, the MyShed app could be your way of cashing in on the DIY sharing economy.

SURPASS YOUR EXPECTATIONS WITH NOVASTAR

Mirka UK is bringing the next generation of abrasives to market with the launch of Novastar. This new multi-hole abrasive has been developed with durability, versatility, productivity and efficiency at the forefront of the design process, enabling users to handle the most demanding of sanding applications, while still being able to provide a consistent scratch pattern.

Novastar, like most of Mirka's abrasives, provides the user with efficient dust extraction the brand is synonymous for. This process is ably assisted by its new multi-hole pattern and precision coating, ensuring that the dust produced is repelled, thus avoiding clogging.

Suitable for use on hard surfaces and lacquers, where a robust film abrasive is required, it provides an aggressive initial cut especially with coarse grits (80-100) and is P graded from 240-600 to provide a finer finish. It is wear resistant for increased durability and its flexible backing means that it does not lose grain, even when folded.

For further information on this exciting new range, see **www.mirka.com/uk/uk**.

MAKITA LAUNCHES 18V 16G LXT FINISHING NAILER

The new and eagerly awaited Makita DBN600ZJ 18V LXT finishing nailer is setting new standards in nailing technology. Engineered for 16 gauge finishing nails, from 25 to 60mm in length, this nailer is particularly suitable for second fix construction site installations such as applying skirtings, architraves and doorways, and electrical fixtures and plumbing connections, which require a neat, professional visual appearance.

Powered by a single 18V Makita Lithium-ion battery, the powerful motor will deliver up to 800 shots on a fully charged 4.0Ah battery. The magazine has the capacity to carry 110 nails and when empty the machine weighs a comfortable 3.4kg. A conveniently designed window allows for easy checking of the remaining quantity of nails.

Operator accuracy and firing efficiency are the keys to the new Makita finishing nailer. The easy-to-see slim tip nose is not shielded from view and the driving depth is easily adjusted by dial, while tool-less nail jam clearing adds speed and efficiency while reducing downtime. The anti-dry firing mechanism ensures that a nail is in the ready position; if the magazine is empty or the nails are not positioned correctly, the nailer will not operate, thus saving battery life and enhancing safety. The ergonomically designed grip, LED job light and belt clip ensures operator comfort and convenience, together with low vibration and sound level.

This new tool can be used in either bump-fire mode – where the nose is bumped against the target material to activate it – or in sequential mode where the tip is placed on the target and the trigger pulled. Mode selection is via a rocker switch and a bumper ensures that the workpiece is fully protected from scratches and damage.

Recoil has been substantially reduced in this new Makita nailer allowing better tool control in rapid applications. It also reduces the effort required from the operator to control the nailer when constantly repositioning the tool for the next shot.

The Makita DBN600ZJ cordless, gas-less nailer ensures low running costs while downtime during low temperatures and cold weather working will be a thing of the past. It is supplied as a body only machine in a rugged, sturdy and protective Makpac case; see **www.makitauk.com**.

EMIRATES TEAM NEW ZEALAND USE NEW HIKOKI POWER TOOLS TECHNOLOGY

HiKOKI Power Tools are excited to announce that Emirates Team New Zealand has adopted the revolutionary new HiKOKI power tool technology platform to help defend the America's Cup.

Emirates Team New Zealand's Sean Regan, in charge of the team's boat building facility and building the new AC75 boats themselves, says: "The new technology is amazing, the power that we get, the longevity of the batteries, and the recharge times are fantastic."

HiKOKI is the bold new name of Hitachi Power Tools and signifies an industry leap forward in product development and innovation. HiKOKI has harnessed state of the art lithium-ion battery technology from the electric vehicle industry to create Multi Volt, a 36V cordless battery platform, which delivers a game changing improvement in power and performance.

Sean adds: "In our game, if you sit back you're never going to beat the opposition. We've got to keep evolving right to the very end, and we can see that with HiKOKI, and where they're going. We're really excited to be able to use that new technology to help us to defend the America's Cup."

Coinciding with the global launch of the HiKOKI brand, HiKOKI NZ recently announced its continued support as the Official Supplier of Power Tools to Emirates Team New Zealand.

Regan continues: "Knowing that HiKOKI are with us going forward is huge, because I know what Hitachi has done for our team over the last 20 years."

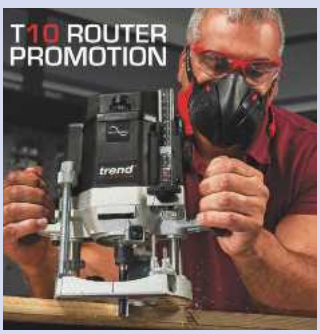
This agreement marks a significant milestone in the history between the company and Emirates Team New Zealand, as Hitachi Power Tools has been the Official Power Tool Supplier for every single campaign in the team's history, spanning back to 1993.

HiKOKI recently delivered their range of new power tools to the build facility on Auckland's North Shore, where the team's boat builders are setting up a world class operation to begin building the America's Cup boats. Watch their reaction here: **https://youtu.be/Nt6-TUSGwuI**, and for further details, visit **www.hikoki-powertools.co.uk**.

TREND T10 ROUTER PROMOTION

Professional and amateur woodworkers alike will benefit from Trend's new promotion for the Tradesman T10 router. Available in both 230V and 115V versions, the T10 is the premium ½in collet router for workshop or on-site use, packed with power and features for easy set up and increased productivity.

Designed with the trade in mind, the unique Inner Guide Bush Plate and Line-Up Pin ensures the guide bush is perfectly concentric to the spindle; essential when using worktop and other commercial jigs where the accuracy of the joint can be compromised.



Full wave electronics control the 2,000W variable-speed motor to keep the power constant under load, allowing the router to maintain its speed and performance. So whether it's a fine inlay cut, a deep mortise or heavy moulding, a premium performance and finish across a range of materials and applications is assured.

The soft start motor and two column precision base with phosphor bronze bushes makes controlled routing a breeze, and with power and plunge controls in easy reach of both hand grips, the Trend T10 encapsulates safer routing by always allowing full hand grip contact for both operations.

A three-position adjustable rotating turret and fast adjusting depth stop allows plunge cuts to be easily controlled and set, and with a maximum 80mm plunge depth, it's ideal for lock fitting applications with a suitable jig.

Coupled with the high quality micro adjustable guide fence as part of the package, highly accurate adjustments are easy to achieve for finer work such as inlays. A built-in spindle lock allows fast cutter swaps while the precision ½in multi-slit collet affords a fail-safe grip on the cutter shank for additional safety in use across all applications.

Whether using with jigs for fitting mortise locks or kitchen worktops, rebating, grooving or moulding, the Trend T10 is the router that has the control and application to cover any routing work, and with the 8,000-20,000rpm speed control, whether hard or soft woods, laminates, plastics or more specialist materials, the T10 is the tool for the job.

To find out more about the current T10 promotion including additional router and jig packages, please contact your local dealer or visit the Trend website – **www.trend-uk.com** – to find your nearest stockist.

OSMO UK'S FASTEST DRYING WOOD FINISH

Polyx®-Oil Express from Osmo UK is a premium fast drying wood finish guaranteed to keep wooden surfaces in top condition. Taking just 1.5 hours to dry in between coats, Polyx®-Oil Express offers flooring contractors, specifiers, DIY enthusiasts and consumers a solution that eliminates long downtime, while still providing all the professional features of a traditional oil-based finish.

Ideal for solid wood and plank wood flooring, blackstrip, OSB and cork floors, as well as furniture, Polyx®-Oil Express is a high quality, water-repellent and dirt-resistant wood finish based on natural ingredients. It is the fastest drying product that Osmo UK has ever created, drying within 1.5 hours in between coats when used with the Osmo UK 6632 Hardener.

Polyx®-Oil Express is available in a clear-satin finish for a subtle, noble shimmer that resembles satin and emphasises the wood grain modestly, and a clear-matt finish for an almost completely natural look, with light reflections diffused.

Osmo UK Polyx®-Oil Express is also extremely easy to apply: simply mix the hardener into the finish and then apply two coats thinly along the wood grain with a natural bristle brush or microfibre roller. Brush on to the wood surface to achieve deep, long-lasting penetration.

Offering all the professional features of a traditional oil-based finish, Polyx®-Oil combines the smooth surface of conventional lacquers and the ease of application of a water-based finish, while managing to eliminate the inherent disadvantages of these other types of finish. Unlike ordinary oil finish products, which form a film on the wood, Polyx®-Oil Express' natural components penetrate deeply into the wood to create a micro-porous finish. This allows the wood to breathe, moisture to evaporate and ensures a flawless finish both upon application and for many years to come.

After treatment the wood is strengthened from within and retains its elasticity. It becomes water repellent, stain resistant and more hard-wearing, because it meets the wood's natural demands and does not crack, flake, peel or blister.

For stockists and further information, see **www.osmouk.com**.

BEAT THE FREEZE THIS WINTER WITH CLARKE TURBO FAN GAS HEATERS

Clarke's range of efficient turbo fan propane gas fired heaters are perfect for heating any garage, workshop or warehouse this winter. The Little Devil II (pictured) provides a heat output of 10.3kW, with models in the range delivering a heat output up to a massive 131kW. Some also feature variable heat output control and all are supplied with a regulator and gas hose.

Dual voltage (110V/230V) models are also available and all are built within a corrosion resistant stainless steel casing. With fuel safety cut out and a sturdy handle on top, these are perfect for heating all your cold spaces this winter.

Prices start from £95.98; see **www.machinemart.co.uk**

What's new from D&M TOOLS

'THE' TOOL SPECIALISTS ● WWW.DM-TOOLS.CO.UK ● 0208 892 3813

'THE' TOOL SHOW '18 AT KEMPTON PARK

D&M TOOLS 'THE' TOOL SHOW '18
THETOOLSHOW.COM

D&M Tools would like to say a huge thank you to exhibitors and visitors who attended our 18th annual show in October and helped to make it another success.

Visitors travelled country-wide to attend the exhibition of hand, power tools and woodworking machinery at Kempton Park Racecourse in Sunbury-on-Thames, which took place over the weekend of 12–14 October 2018.

This annual free event is considered by many to be the highlight of the woodworking calendar with probably the largest display of tools and accessories from all the leading brands. Visitors to the show had the opportunity to get their hands on the latest products, try out the kit, compare various brands and talk to the experts before taking advantage of the exclusive show deals and special offers.

The show featured large stands from all the big names in the industry, and the fine weather on Friday and Saturday allowed visitors to enjoy the various outdoor displays as well as the two floors inside.

Returning again for its second year was **Woodworking Live** from **Record Power**. This popular event brought together some of the UK's most respected and popular woodworkers – **Ben Crowe** of Crimson Guitars (who also had a large collection of antique tools on display and for sale); professional woodturner **David Lowe**; **Larry Chant** of 'A cut above' hardwood boards'; talented and innovative woodturner **John Clothier**; scrollsawer and turner **Jamie Page**, plus members of the **Surrey Association of Woodturners**, as well as **Stuart Pickering** and **Craig Heffren** from Record Power. We look forward to seeing you again next year! See details and updates at **www.thetoolshow.com**.

What's new from

'THE' TOOL SPECIALISTS ● WWW.DM-TOOLS.CO.UK ● 0208 892 3813

D&M TOOLS

NEW RANGE ADDED – SCANGRIP NOVA WORK LIGHTING

MANUFACTURER: Scangrip
D&M GUIDE PRICE: See website

SCANGRIP INNOVATION FROM DENMARK

We have recently introduced a new range of work lighting from the leading brand SCANGRIP of Denmark. SCANGRIP provides the strongest and most comprehensive range of durable and functional LED work lights and is Europe's leading and trendsetting supplier of work lighting solutions for professionals. The range includes the original work lights, which are the best, most powerful and sturdy COB LED work lights on the market. These are universal for the most challenging lighting operations in every rough and demanding working environment. Features include:

- Extremely powerful illumination up to 10,000 lumens; light dimmable in steps
- Rechargeable versions with display for battery capacity and remaining operating time
- Elegant design with integrated carrying handle
- Re-designed stand for direct mounting on tripod

The body of NOVA is made of die-cast aluminium, which makes it extremely sturdy and shockproof. Also, NOVA endures the rough, wet and dirty conditions of the professional working environment, and withstands even outdoor work in all kinds of weather conditions, as it is completely waterproof (IP67).

The NOVAs with the unique DUAL SYSTEM are both rechargeable and with cable providing you unlimited application possibilities. The DUAL SYSTEM connection is improved for easier and faster mounting and disconnecting the cable. The rechargeable versions are also supplied with a user-friendly display, showing both battery capacity and the remaining operating time.

NEW

SEE THE VIDEO ON WEBSITE

PLEASE CHECK OUR WEBSITE – WWW.DM-TOOLS.CO.UK – FOR THE LATEST PRICES AND DEALS

RYOBI ONE+ PROJECT VAC

Despite being only DIY rated, this handy Project Vac from Ryobi is convenient, lightweight and portable, as **Phil Davy** discovers

Although cordless power tools have many benefits, dust extraction can be a problem with some. Dustbags supplied with older sanders or planers are often inefficient, which may mean hooking the tool up to a mains-powered vacuum extractor, certainly when working indoors. But then you no longer have the freedom of a cordless tool… Ryobi have a solution with their new ONE+ Project Vac, which is itself battery powered. You can use the device as a small vacuum cleaner around the workshop, or link it up to a power tool with a suitable port. Alternatively it can be used as a blower unit, which is handy for keeping the bench clean or dusting down a project before finishing.

Portable power

Smaller than most mobile vacuum extractors fitted with castors, the Project Vac measures about 460 × 310mm, so can easily be placed on a bench top. Weighing 4.9kg with a 5Ah battery on board, the folding handle makes it easy enough to manoeuvre. The upper section houses a 95W motor and is attached to the lower drum with a hefty clip at each side. A large rocker switch on top activates the machine, which isn't too noisy. Ryobi claim that flow rate is 1,400 litres per minute, similar to that of a compact 240V extractor.

With a capacity of 11 litres, there's room for a surprising amount of debris. Unlike some extractors there's no disposable inner paper bag, so material sucked up must be tipped out of the container when full. A cylindrical fabric filter is fitted, which you simply unscrew for cleaning. Tap this on the floor or brush it down and it can then be replaced. The filter can be washed under the tap or renewed when it eventually clogs up completely.

You can extend the flexible hose up to 1.7m, though in reality it's too taut at maximum stretch for convenient use. It can be stored neatly around the upper lid and a swivel collar means positioning is not crucial when hooked up to a power tool. A floor nozzle is provided for vacuuming, which can be stored on the end of the Vac. There's also a tapered crevice tube, clipped to the side. Oddly, no brush attachment is included, which would make vacuuming uneven surfaces that much easier. A rubber adaptor enables the hose to be

Weighing 4.9kg with a 5Ah battery on board, the folding handle makes it easy enough to manoeuvre

The upper section houses a 95W motor and is attached to the lower drum with a hefty clip at each side

A large rocker switch on top activates the machine, which isn't too noisy

Unlike some extractors there's no disposable inner paper bag, so material sucked up must be tipped out of the container when full

A cylindrical fabric filter is fitted, which you simply unscrew for cleaning

It can be stored neatly around the upper lid and a swivel collar means positioning is not crucial when hooked up to a power tool

fitted to a power tool with suitable dust port, though there's no on-board storage for this.

It's easy enough to swap from extraction to blower mode. You fit the floor nozzle, slide it over a grille and disconnect the other end of the hose. Don't expect a fierce blast of air – more a gentle flow – though this seems adequate.

Testing times

Using the Project Vac connected to a Skilsaw Multi when cutting through floorboards was an ideal test, as small saw tools like this can throw out a surprising amount of sawdust. Similarly, it worked well with a Makita 18V cordless router.

Preparing oak kitchen worktops was another chance to check the Vac's performance. Hooked up to a random orbit sander it was just as effective, especially as you can position the extractor close to where you're working. Because it's lightweight, I found there's a tendency for a power tool to pull the Vac across a surface when connected. For sanding tasks it's easy enough to hold the Vac in your free hand, though with some tools this isn't feasible. It will be really interesting to test the Project Vac with Ryobi's forthcoming ONE+ mitre saw. Not surprisingly, the downside is battery life. It doesn't take long to drain a fully charged power pack, even rated at 5Ah – I checked this at just over 15 minutes. With Ryobi's new High Energy batteries launching soon, I'd guess that run time will be extended further.

Conclusion

The Project Vac is unlikely to replace a 240V extractor for regular workshop use due to limited battery life. But it's arguably much more convenient, even though it's only DIY rated. Lightweight and portable, you can use it virtually anywhere, whether hooked up to a power tool or for simply vacuuming. And it's ideal as a back-up household cleaner, not to mention for keeping your car's interior spick and span.

SPECIFICATION

Power: 18V
Air flow (l/min): 1,400
Air Watts: 95
Container capacity (l): 11
Suction: 11.8kPa
Typical price: £119.99 (bare)
Web: www.ryobitools.eu

THE VERDICT

PROS

- Cordless compact, portable unit; vacuum and blower functions

CONS

- Drains battery quickly; no brush attachment; no wet suction

RATING: 4.5 out of **5**

A floor nozzle is provided for vacuuming, which can be stored on the end of the Vac

There's also a tapered crevice tube, clipped to the side

A rubber adaptor enables the hose to be fitted to a power tool with suitable dust port, though there's no on-board storage for this

Hooked up to a random orbit sander it was just as effective, especially as you can position the extractor close to where you're working

It's easy enough to swap from extraction to blower mode. You fit the floor nozzle, slide it over a grille and disconnect the other end of the hose

Using the Project Vac connected to a Skilsaw Multi when cutting through floorboards was an ideal test, as small saw tools like this can throw out a surprising amount of sawdust

TREND LED TORCHES

The Angle Head Torch

A rubberised on/off button offers two light levels

It's easy to reach the power button

Phil Davy takes a look at two new LED torch offerings from Trend

With shorter days and winter nights here for a while longer yet, Trend has made life more bearable with their new range of LED torches. I was impressed with their Angle Twist back in the November issue, but they have a few more new products worth checking out to brighten our winter…

ANGLE HEAD TORCH

Even if we spend most of our spare hours in the workshop and manage to avoid those general maintenance jobs, there are still probably times when a head torch would be indispensable. Replacing a light bulb, rummaging around in the attic or checking the car in the gloom often means you need both hands free. This device is particularly useful as you can detach the light from the headband and use it as a conventional torch. Overall weight is 9gm when attached to the band.

The torch itself is tiny – just 91mm in length. Its squat, aircraft aluminium body is sturdy and offers plenty of grip for cold fingers. A strong steel clip means you can store it in a pocket with little risk of it falling out. Powered by an AA battery, this is accessed by unscrewing the end cap. Built into the cap is a powerful magnet, a great feature for the workshop where the torch can be attached to a machine table or similar metal surface.

At the opposite end is a rubberised on/off button, offering two light levels. Press once for maximum (115 lumens), and twice for the lower level (30 lumens). Keeping the button depressed for two seconds puts it into strobe mode, which could be handy in an emergency. Again, there are two options here – fast strobe and a slower flash. I have to say that light intensity is amazing for such a small torch. Equipped with a Cree White Light LED (50,000 hours lifetime), these are probably the best in the business.

The stretch fabric headband is fully adjustable, with soft grip strips lining the inside to prevent it slipping off your head. It's comfortable to wear, with no annoying bulges. The torch clips securely into a rigid plastic holder on the band and won't budge until you want to change the angle. A small lug on the holder engages with the ribbed body enabling you to twist the light up or down to direct the beam. And it's a cinch to reach the power button. Simple but very effective.

The Trend Easy Focus Pen Torch

EASY FOCUS PEN TORCH

If you just need a straightforward light to keep by the workshop door or in your pocket, this Pen Torch should fit the bill. Its slim aluminium body is 143mm long overall and partly knurled to provide grip. Weight is just 6gm. A sturdy pocket clip is fitted to the end cap, which again you unscrew for battery access.

Powered by two AAA batteries, this time there's only one light level (120 lumens), which is activated by pressing a rubber button. With a warmer light than the Head Torch, the LED here is by Lumileds. Trend describe this as Sunlight, which presumably means it's not a harsh white beam. You can focus the beam from wide angle down to a small square by sliding the front outer ring outwards. I'm not quite sure why you'd need to do this – perhaps to avoid disturbing other people at night. It's entertaining, though!

Conclusion

Both Trend torches are sturdy, well designed and made to last, with impact-resistant lenses. Offering impressive levels of light, batteries are included. Either torch would make a great last-minute stocking filler, though which one to choose?

A sturdy pocket clip is fitted to the end cap, which you unscrew for battery access

You can focus the beam from wide angle down to a small square by sliding the front outer ring outwards

SPECIFICATION

Angle Head Torch
Brightness: 30/115 lumens white light
Modes: Low/High/Strobe/SOS
Run time: 5.5/1.15 hours
Strobe frequency: 3Hz
Beam distance: 72m
Water resistance: IPX4
Drop resistant: 1m
Intensity: 1,300cd
Normal working temp: -20°C to 50° C
Typical price: £23.94

Easy Focus Pen Torch
Brightness: 120 lumens sunlight
Run time: 2 hours
Beam distance: 56m
Water resistance: IPX4
Drop resistant: 1m
Intensity: 800cd
Normal working temp: -20°C to 50°C
Size (L×D): 135 × 14/17mm
Weight: 39g (excluding battery)
Typical price: £17.94
Web: www.trend-uk.com

THE VERDICT

PROS
- Hands-free light, magnetic base (head torch); choice of light levels (head torch); excellent build quality

CONS
- Nothing obvious

RATING: 4.5 out of **5**

KUNZ NO.100 SQUIRREL TAIL PLANE

Although the Kunz name may not be too familiar, the German manufacturer has been producing traditional hand tools for more than a century. Distinguished by their contrasting green and red epoxy paintwork, these simple, no-nonsense items have probably been made much the same way for decades. Several appear to be based on old Stanley/Record models and have similar product numbers. Kunz tools are not as refined as Veritas or Lie-Nielsen planes, say, and their pricing reflects this.

This little palm plane is made from fine grey cast-iron and has a distinctive rear handle (the squirrel tail) that sits comfortably in your hand during use. With a sole measuring 84 × 35mm it's almost identical to a Stanley No.100, which was discontinued decades ago. Weighing just 19.5gm, blade width is 25mm while its thickness is barely 2mm. This is secured to the body by a cap iron that's tightened with a small thumbscrew. There's no depth or lateral adjustment, however.

With a bed angle of about 40°, the blade is bevel down, unlike larger block planes which are generally bevel up. To set this up you rest the plane on the bench with the blade touching the surface, then lock it firmly. If the cut is too deep, it's easy enough to slacken off the screw and slide it back slightly. Once cutting sweetly, most users will leave the depth alone until the blade needs honing again. Throat opening is a rather wide 6mm. Like any budget plane, this one needed minor fettling to get the best from it. Although the sole was pretty flat, these tools usually benefit from spending a few minutes running them across an abrasive sheet or sharpening stone, but once honed, it wasn't difficult to get it working efficiently.

Conclusion

The Kunz is a handy little tool for detailed work such as decorative chamfering, trimming veneers, instrument or model making. Although the pitch is too steep for end-grain, it works a treat on edges.

SPECIFICATION

Typical price: £23
Web: www.johnsontools.co.uk

THE VERDICT

PROS

- Simple, inexpensive plane for small-scale woodwork

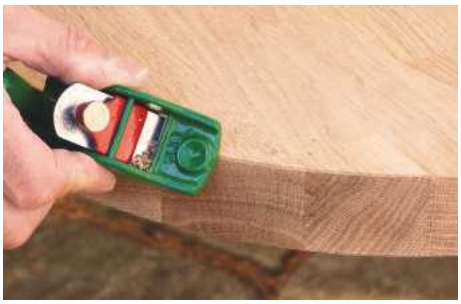
CONS

- Benefits from fettling; no depth adjustment

RATING: 4 out of **5**

The blade is secured to the body by a cap iron that's tightened with a small thumbscrew

Once honed it was not difficult to get it working efficiently



The Kunz is a handy little tool for detailed work, such as decorative chamfering

AXCALIBUR FORSTNER BIT SET

They may not be particularly fast cutting, but if you need a really clean, accurate hole in timber you can't really beat a Forstner bit. Not only can you bore uniform, flat-bottomed holes but it's possible to overlap edges without the bit drifting off. Unlike most drill bits they're guided through the timber by their rims, rather than a centre screw. With the popularity of ¼in hex-shank cordless drill/drivers, many bits will fit directly into an adaptor in the chuck. This means they can be swapped rapidly without having to unlock the jaws each time.

This five-piece set from Axminster is manufactured in Austria and includes bit diameters of 15, 20, 25, 30 and 35mm. Cutting edges are slightly fluted and extremely sharp, though it's hard to say how much timber you'll bore through before sharpening is necessary. Each bit has a recommended maximum speed marked on its hex shank and comes in an individual plastic storage tube.

Conclusion

I found these bits to produce exceptionally clean holes when used in a cordless drill. For angled holes you may need to drill a pilot hole first, though this shouldn't be necessary if using a pillar drill. Quick to change if drilling holes of different diameters and using a hex adaptor, you're unlikely to find better quality bits at this sort of price.

SPECIFICATION

Typical price: £84.96
Web: www.axminster.co.uk

THE VERDICT

PROS

- Precision-made, high quality steel; hex shank for convenience and speed

CONS

- Storage box for complete set would be a bonus

RATING: 4.5 out of **5**

Unlike most drill bits they're guided through the timber by their rims, rather than a centre screw

With the popularity of ¼in hex-shank cordless drill/drivers, many bits will fit directly into an adaptor in the chuck

For angled holes you may need to drill a pilot hole first, though this shouldn't be necessary if using a pillar drill

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AXMINSTER TRADE SELF-ADJUSTING TOGGLE CLAMPS

Jonathan Salisbury takes a closer look at two of the self-adjusting toggle clamps from Axminster's Trade range – one horizontal and one vertical

I've been making spoons for over a year and used a G-clamp to hold blanks on my bench when rough shaping the outside using a drawknife. I thought a toggle clamp would be a better alternative, but the lock position of toggles needs to be changed when thickness increases (otherwise the clamp won't shut) and when thickness decreases (otherwise the clamping force isn't enough to hold securely). After receiving an email from Axminster Tools & Machinery advertising their new Trade Self-Adjusting Toggle Clamps, they sent me two to try, one vertical and one horizontal, both manufactured for them by AMF.

At first glance they are large and very sturdy-looking; the handles are chunky and the rubber texture provides non-slip grip, so the operating hand will hopefully not slip or hurt when large forces are being applied. Both have large baseplates to allow easy fixing to surfaces using 5mm screws.

How do they work?

As the lever is pushed down and the foot meets the material, resisting forces move the sprung 'clamping force mechanism', situated behind the lever, backwards. As this locks in place, the clamp then operates in the same way as a 'normal' toggle. Clamping pressure is adjusted by a small screw behind the linkages and, once set, the same amount (more or less) is applied regardless of the thickness of material under the foot. I racked up the pressure just to test it and the screws attaching it to the board couldn't hold it down! Both clamps can be adjusted for reach in the same way as ordinary toggles.

Adjustment screw and clamping force lock mechanism

In use

The clamp feet are a generous size and have a soft plastic cover to limit damage. They swivel to allow them to pivot onto the workpiece, but they rotate a little too easily, even under high clamping forces, and I have had wood move while being cut; using a piece of non-slip matting to increase friction stopped this, however. The only real niggle I have is that it is very difficult to adjust the horizontal clamp's foot; there is a generous amount of travel but nowhere to drive the threaded bar, and the small amount left when it is almost fully in provides no space for fingers and insufficient grip for pliers.

One setting for thick…

… and thin, with no adjustment necessary

Horizontal clamping on a bench hook

The horizontal clamp's reach is difficult to adjust fully

Conclusion

The self-adjusting toggle clamp is not new, but it is a recent addition to Axminster's catalogue – so I thank them for bringing them to my attention! The vertical clamp is far more useful for my spoon carving, and I liked how the clamp's foot lever retracts neatly into the handle to get it right out of the way when open. The horizontal ones hold work firmly to bench hooks and mitre saws and will also come in useful on the bench drill, planing jigs and no doubt many other applications when I start looking. The vertical clamp deserves full marks. The horizontal clamp is arguably less useful, but it is the adjustability issue that is the only real negative in a great product.

THE VERDICT

PROS

- Do not need resetting when material thickness changes; large handles for comfortable use

CONS

- Horizontal clamp's reach is difficult to adjust fully; require secure fixing to work surface; more expensive than other clamping methods

RATING: 4.5 out of **5**

SPECIFICATION

Axminster Trade Clamps Self Adjusting Horizontal Toggle Clamp 20

- Fast, firm hold-downs for securing workpieces
- Invaluable for custom-made jigs
- Ideal for router table and spindle moulder jigs
- Quick to lock and unlock
- Automatically adjusts to different work heights
- Adjustable clamping force
- Perfect for small-scale production use
- Max reach 35mm; max thickness approx 35mm

Axminster Trade Clamps Self Adjusting Toggle Clamp Push/Pull 15

- Versatile, strong, durable toggle clamps
- Automatically clamps any thickness within capacity
- Adjustable clamping force variable up to 2,000N
- Threaded extension for manual length adjustment
- Swivelling clamp shoe with non-marring cover
- Wide dual-component handle with comfort insert
- Galvanised and passivated steel for a long service life

Depending on model:
Maximum reach: 35mm-60mm
Maximum workpiece thickness: 35mm-70mm

Typical prices: £21.65-£24.20
Web: www.axminster.co.uk

Work clamped firmly for cutting the spoon bowl

WIN!

1 OF 5 TRITON SJA100E SUPERJAWS PORTABLE CLAMPING SYSTEMS – WORTH £88.33 EACH!

Boasting a powerful 1,000kg clamping force, the **Triton SuperJaws** is the ultimate clamping system, whatever the task

SUPERJAWS SJA

Tough, portable and versatile – Triton Tools' SuperJaws portable clamping system has proven to be the clamp of choice for many people undertaking projects, whether that involves timber, fence panels, doors or even bikes. With its robust, powder-coated, all-steel construction for longevity, the SuperJaws has a powerful 1,000kg clamping force for a sturdy, controlled hold.

SuperJaws' reversible sliding jaws allow an extra-wide 955mm clamping width capacity and a load capacity of 200kg.

The urethane jaw facings provide a protective, slip-resistant grip, and the foot-operated clamp frees up the user's hands for full control of the workpiece. SuperJaws also has an extra-wide tripod base for increased stability, even on uneven surfaces, and the lock/release switch allows fast, trouble-free release of the jaws.

The larger SuperJaws XXL option offers an increased load capacity of 250kg and a 1,000mm width capacity, for larger workpieces. Simon Barrett, Global Product Manager at Triton Tools, said: "SuperJaws is one of the gems in the Triton Tools range. We have had fantastic feedback from people who have used it for a wide range of tasks. The improved frame and leg design means the whole unit can be set up and folded down in seconds. It can be easily transported right to the job, whether that is indoors, outdoors or on the workshop floor. The stand-alone design gives people 360° access to their work, while the powerful clamping force will keep even the most awkward workpieces secure."

There are two other products in the range – the Multi-Stand and the WoodRack Storage System. The Multi-Stand is a multi-purpose, adjustable support stand with a load capacity of 100kg. It features an extra-wide tripod base for excellent stability and the low friction side surfaces provide smooth controlled travel of the workpiece. The Triton WoodRack Storage System is easy to install and provides generous storage for wood, piping, guttering and long metal pieces on six levels, each with a capacity of 50kg – see **www.tritontools.com** to find out more.

triton Precision Power Tools

Technical specification
Capacity – maximum load: 100kg
Clamping force: 1,000kg
Clamping method: Foot-operated
Folded size – height: 755mm
Folded size – length: 320mm
Folded size – width: 320mm
Material – primary construction: Steel
Product height: 860mm
Product length: 965mm
Product weight: 15.64kg
Product width: 975mm
Standing size – height: 860mm
Standing size – length: 965mm
Standing size – width: 975mm

HOW TO ENTER

To be in with a chance of winning 1 of 5 Triton SuperJaws portable clamping systems, just visit **www.getwoodworking.com/competitions** and answer this simple question:

QUESTION: WHAT IS THE CLAMPING FORCE OF THE SUPERJAWS?

The winners will be randomly drawn from all correct entries. The closing date for the competition is **4 January 2019**

Only one entry per person; multiple entries will be discarded. Employees of MyTimeMedia Ltd and Triton Tools are not eligible to enter this competition

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Ideal for compact work spaces where storage is limited and for trade professionals who need accurate workshop facilities on the move. Each fast-switch module performs as well as any stand-alone system, and the TWX7 Workcentre includes the Clamping Table module as standard.

TWX7 RT001

TWX7 ROUTER TABLE MODULE

Optimised for used with all Triton Precision Plunge Routers, the TWX7RT001 Router Table is coated in a micro-dot, low-friction surface, and can shape, plane, rebate, trench, mould and groove. When a Triton router is fitted, bit and collet change is possible above the table. Accuracy is achieved for each task with micro-adjustable fences.

TWX7 PS001

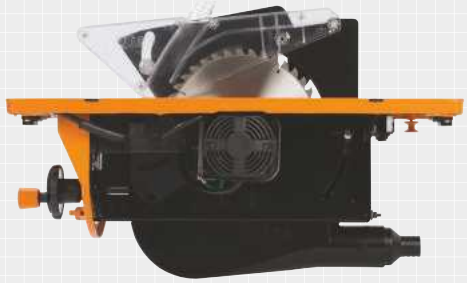
TWX7 910W PROJECT SAW 127MM MODULE

Doubling as a standalone bench tool or TWX7 Workcentre module, the 910W TWX7PS001 Project Saw functions as a 127mm dia blade circular saw either sliding or fixed. The dual-bar sliding system allows for smooth, controlled cutting. In fixed mode, the saw becomes an accurate table saw for mitre and cross cutting when used with the protractor fence.

TWX7 CS001

TWX7 CONTRACTOR SAW MODULE

The TWX7CS001 Contractor Saw transforms the Workcentre into a full-featured table saw. The 1800W saw powers a 254mm TCT blade through rip cuts up to 86mm high and bevel cuts 0-45°. Four-point locking of the rip fence enables professional accuracy on site, and accessories allow for larger workpieces.



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LUTHIER'S LUTE

Woodworker and luthier **Shaun Newman** presents the first of a three-part guide to building your own iconic Renaissance instrument

Photographs by **Dave Hutton**

More than 12 years ago I began making a lute. Somehow, I got blown off course, and despite successfully carving out the intricate rosette in the soundboard, and making a few of the 11 ribs to construct the back, the job got shelved.

Recently, however, I was able to offer some workshop experience to a young student from the International Lutherie School in Antwerp, Belgium. He spotted the work I had done to date on the lute and encouraged me to continue. I feel like I should have been the one encouraging him, but sometimes these things work in reverse. One suggestion he made was that I look at the work of an English lute maker, Stephen Gottlieb,

which can be seen in a video clip on Vimeo (see sidebar at end of article) and is one of a series made for BBC 2 in the 1970s called *In the Making*. Truly inspired, with some hope in my heart I decided to continue.

A little history – the early days

It is thought that the lute is derived from the mediaeval 'oud', which came to Europe in the 15th century from North Africa. The Arabic name 'l'oud' means 'the wood', and as the name was absorbed into European culture it became 'the lute'. From the late 15th century until several decades into the 18th, almost all of the great European lute makers were German or Austrian. 'The wood' seems an appropriate name, given the plentiful supplies of such timbers as spruce and maple in that area. History shows that a number of well-known makers emigrated to Italy, and workshops appeared in cities such as Venice, Padua, Bologna and Rome.

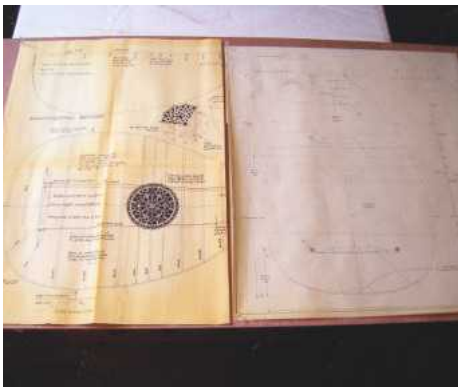
The lute dominated the musical scene for several hundred years across Europe, both as an accompaniment to song, and later as a solo instrument in churches, courts and just about everywhere. The lute itself changed from just seven courses (a 'course' is either a pair of strings, or a single one) with 13 strings right up to as many as 19 strings in 10 courses. The body almost always appeared similar, with the characteristic bowl shape, but the neck and fingerboard were often changed by almost unrecognisable proportions. From the simple seven-course lute to the 'chittarone' or 'theorbo', the instrument grew in size from under 1m in length to more than 2m.

Playing techniques also changed over the years. The earlier instruments were played with a plectrum, probably made from goose quill, but the lute was later plucked in a similar way to the modern classical guitar, although the convention was to hold the hand with the fingers pointing slightly upwards, rather than down. Written notation would frequently be in the form of diagrams showing where the fingers of the left hand should be placed onto the fingerboard – an early form of 'tablature' (more commonly known as 'tab'). Once solo playing became accepted some very beautiful pieces were written, for example by Sylvius Leopold Weiss and even by Vincenzo Galilei, father of the astronomer Galileo Galilei. The compositions are truly sublime.

Recent times – relatively speaking

After around 1600 the demand for lutes declined, and it is felt that this was the result of the rising popularity and hence demand for violins. The few lutes that were made hardly conformed to convention (i.e. extreme lightness and traditional construction) and it was not until great makers of the 20th century, such as Stephen Gottlieb and Robert Lundberg, were working that techniques used by Renaissance and Baroque makers returned. As the instrument came back into favour, there were few craftspeople with the traditional skills, so most lutes began to be made by guitar or violin makers. Open peg heads began to become more widespread, and the soundboards were braced more firmly.

I would like to think that I had the skills and ability to emulate the fabulous and traditional techniques of Gottlieb and Lundberg, but alas,



1 Typical line drawings of the lute, these from the Lute Society

my lute is somewhat 'in the style of', rather than conforming exactly to their approach, so as a guitar maker myself, the instrument described here has, for example, an open peg head.

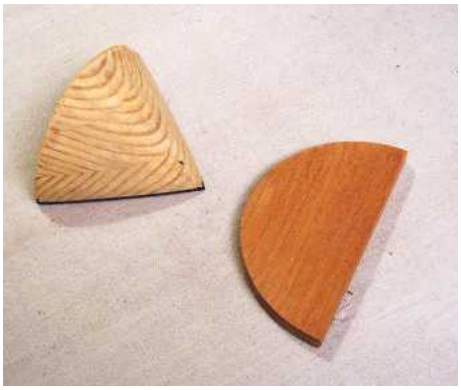
Work, plans & jigs

It would be very difficult to make a lute without reference to a plan, and there are many available. R.Z. Taylor's book *Make and Play a Lute* has plans and instructions, including full-sized templates and is easy to follow. Line drawings are available from a number of suppliers not least The Lute Society or The Guild of American Luthiers (see suppliers list) (**photo 1**).

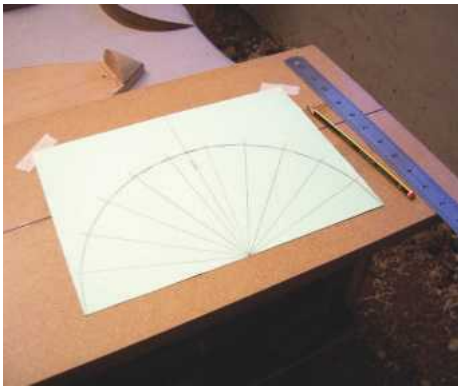
Once a suitable plan has been found it is time to source the timber. As a classical guitar maker, I am used to working with rosewood so chose that wood for the back of the instrument, while spruce was bought for the soundboard, cedar for the neck, and maple for the peghead. Given new CITES regulations on the use and movement of all species of rosewood, I would recommend maple, or walnut (or even a combination of the two with alternating ribs) for the bowl.

2 The components of the bowl former

As with all stringed instruments a mould, former, or workboard is needed to create the correct shape and to hold the work in place during construction. For a lute it is common to see solid formers made from wood or compressed polystyrene. An alternative, which is very simple to make, is rather more a jig than a solid former. It is made from pine and MDF and has a plywood baseboard around 22mm thick (**photo 2**). The jig is made with a block at either end. The one nearer the neck end of the bowl is a half cone, while the

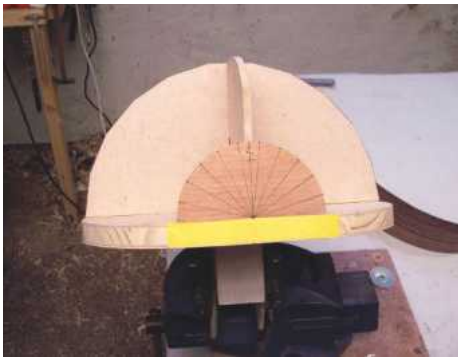


3 The tail disc and neck cone

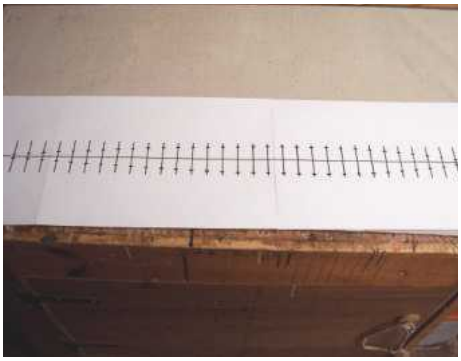


4 Working out where the ribs will sit

5 The former assembled with tail and neck blocks in place



6 The tailblock is marked out ready for the ribs



7 The rib template is first marked onto card

8 The rib template ready for use

9 Cutting the ribs out on the bandsaw, two at a time

one at the tail end is a half disc, curved to the shape of the lower end of the bowl (**photo 3**). Later, flats will be cut onto the disc and the central support arch with a razor file to allow the tapered ribs to be attached. The positions of the flats are located by first drawing a diagram onto card, which will later be cut to the same size as the disc

10 The ribs are bent on a hot iron

and the positions marked in pencil (**photo 4**). Flats are also filed into the top of the central arch. The blocks are screwed to the baseboard of the jig from below and when the bowl has been completed, the screw holes are covered by the soundboard (**photos 5** & **6**).

The ribs & bowl

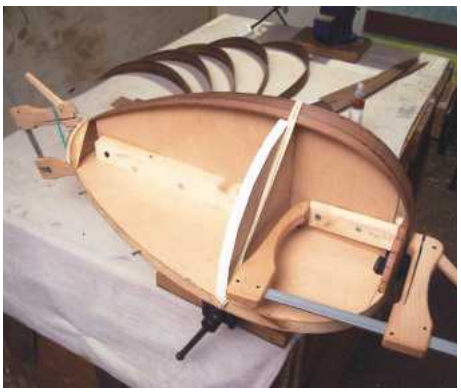
To achieve the perfect shape, the ribs must be made with great accuracy. First a template is made to ensure that all 11 required turn out with exactly the same dimensions. The neck end of each rib reduces to a very fine taper, while the tail end less so. Each rib is 655mm long × 45mm wide. The tapers each begin 410mm from the narrower end (**photos 7** & **8**). Once cut out on the bandsaw (**photo 9**), each rib is bent on the hot iron to the exact curve of the jig (**photo 10**). To ensure good adhesion between the ribs, their edges should be sanded at an angle so that when any two ribs are brought together there is no gap between them. This task is easier than it looks,

11 A slight angle is cut into the edges of each rib

provided they are sanded on a flat surface. I found that a piece of plate glass covered with abrasive held in place with double-sided tape did a good job. The plate glass had originally belonged to a coffee table from the 1970s, and is around 12mm thick, measuring 800mm × 550mm (**photo 11**).

To create the bowl, the ribs are glued to the two end blocks, starting with the centre one and held in place both with clamps and very strong masking tape. They tend to lift away from the jig, so it is as well to hold them down with strong elastic bands as the rib edges are glued together (**photo 12**). When the last two ribs are fitted they should sit neatly on the baseboard of the jig; any slight discrepancy can be corrected by sanding the entire bowl face down on the glass covered with abrasive (**photo 13**).

As it is taken from the jig the bowl is pretty strong, but to add strength, linen tapes are glued over the inside of the seams. The tapes are soaked in Titebond and smoothed into place with a fingertip (**photo 14**).



12 Keeping each rib in place is a challenge!

13 Ensuring the outer rim of the bowl is dead flat

14 Linen tapes strengthen the joins

15 Preparing the cedar neck

16 Hold your breath while you cut the neck angle

17 A small ply block prevents the neck join from sliding as the glue cures

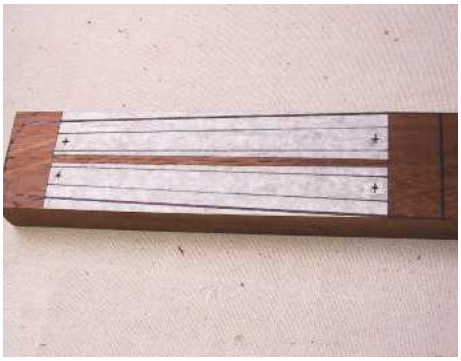
18 A hole is drilled ready to receive the screw that will hold the neck to the bowl

19 The outer curve of the neck is scribed following the line of the bowl

20 The neck inlay in place

The neck

This part of the lute is made from a billet of cedar 250mm long, 70mm wide and 25mm thick (**photo 15**). One end of the billet needs to be attached to the bowl before the neck can be properly shaped. The join between the two parts is a simple butt, cut at an angle of 72°. The first cut is made into the neck end block of the bowl. At first daunting, this task is also less difficult than it looks. The secret is to place a piece of masking tape around the neck block, which gives a pathway for the dovetail saw to follow (**photo 16**). A sliding bevel can then be used to ensure the exact angle is transferred to the end of the cedar billet. These two surfaces are glued and held with a nail or screw. Many older lutes had a flat-headed nail to hold these parts together. I prefer to use a screw as it is easier to control the join as it goes into place. To avoid the two surfaces sliding apart, a small triangle of plywood is attached to the block in the bowl and held in place with two small screws (**photo 17**). A hole is then drilled down into the neck billet through the block to accept the screw that will hold the neck in place (**photo 18**). Before any glue is applied, the neck must be shaped. The back of the neck conforms to the curve at the upper end of the bowl. First the shape is scribed onto the end of the billet and the waste wood removed with a spokeshave or small plane (**photo 19**). A little inlaid decoration can be added to the back of the neck before finally shaping it, although it is not necessary (**photo 20**).



21 The peghead marked out

The peghead

The traditional approach to this part of the lute would have been to make a 'pegbox' rather than a 'peghead'. The box would be closed on three sides, the top being left open and it would taper both along its width and its depth. I have worked on several lutes and the closed box does present some problems for the owner. First it is rather more difficult to string the instrument with a closed box, and frequently the box gets messy with dust and the odd dead insect. It is surprising what luthiers find in various instrument parts – I once found a cigar butt in a 19th century German guitar! The open peghead that I am illustrating here is a popular way of constructing a lute, and is of course similar to the slotted headstock of a guitar.

To begin with, a billet of hardwood such as maple or mahogany is chosen 250mm long, 65mm wide × 25mm thick. For illustrative purposes, the headstock depicted for this part of the operation is mahogany. The peghead may be faced and edged with a rosewood veneer and will have holes first drilled and then reamed into the edges to accept the tuning pegs. The slots that run almost the length of the head are to allow the strings to pass through holes that will later be drilled through the pegs (**photo 21**).

A gentle taper is applied to the edges of the peghead, which is 61mm wide at the neck reducing to 53mm at the end. It is also tapered along its depth from 25mm to 20mm at the end (**photo 22**), and is then simply rounded off. The peghead can have a veneered face to add to the variety of timber used; the one illustrated here is rosewood. If the intention is to veneer the peghead, it is of course advisable to address this before drilling out the string slots. To make the face veneer, two pieces of 2mm thick bookmatched rosewood are planed and sanded true along the edges that will form part of the centre join, and before placing it into the jointing jig, a strip of purfling can be run along the inside. This is purely decorative, and although not necessary does add a touch of interest, and even class (**photo 23**).

To help prevent splitting in the peghead, it is as well to drill the peg holes before cutting out the long slots. However, to work out the pathway of the slots, a 16mm hole is drilled right through the head at the end of each slot, which will later help to guide their exact position (**photo 24**). The next step is to mark out and drill the peg holes. There are seven on the treble side, and six on the bass (**photo 25**). As each has to be tapered later with a reamer, they should be no wider than the thinner end of the peg. Most lutes made with an open peghead can have viola pegs fitted, and these normally have a 1:40 ratio taper. If the pegs are turned on the lathe rather than bought commercially, they must conform to the taper

22 Tapering the peghead with a No.5½ plane

23 The peghead facing in a simple jig

24 Drilling out the string slots…

25 … followed by the peg holes

26 Some of the pegs that can be fitted: viola, vihuela, lute and baroque guitar

ratio of whatever reamer is chosen. For this project I chose ready-made viola pegs made from ebony with the 'Parisian eye' inlay in the end of the button. These came from Dictum in Germany (see suppliers list). For a rather more decorative look, it is possible to fit ready-made lute pegs, or perhaps baroque guitar or vihuela ones. Whatever is chosen, it is important to ensure the reamer has exactly the same taper as the pegs (**photo 26**).

Once the initial peg holes have been drilled the headstock slots can be cut out using a jigsaw. Strips of masking tape are useful to indicate the edges of the slots (**photo 27**), and any slight discrepancies can be removed using a sanding stick, measuring around 6mm thick. It is best to leave the final reaming of the peg holes until after the slots have been cut, which means there will be a lot less resistance due to the amount of wood removed from the middle section of each half of the peghead.

27 A jigsaw cuts out the string slots with ease

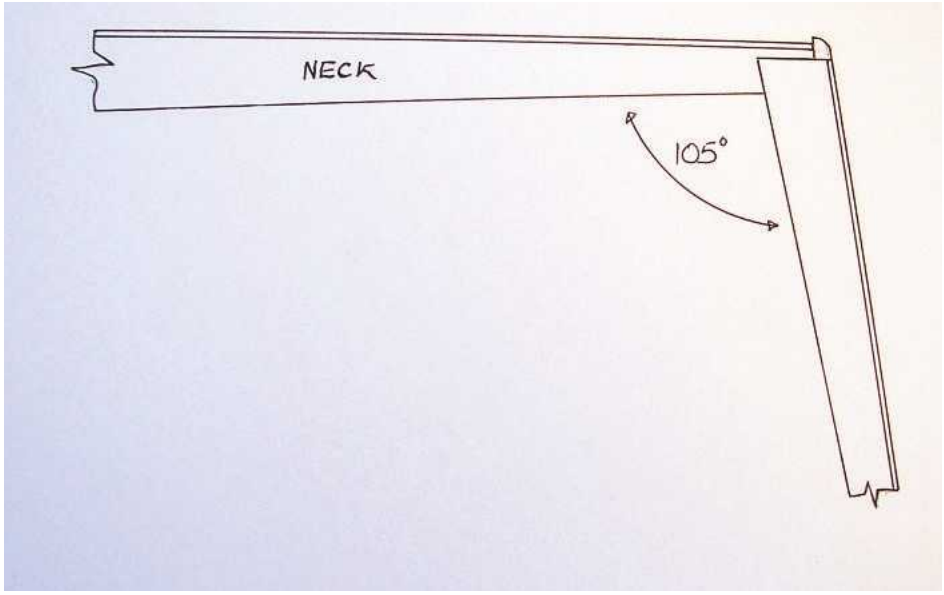
Attaching the peghead to the neck

After the peghead has been fully prepared it can be fitted to the neck. This is achieved by a lapped housing cut at an angle. The peghead leans back almost at right angles and I am often asked why. It seems simply that to avoid it from flying off, the angle increased over the years to compensate for the pull of the strings, particularly as more and more were added as the lute developed.

The first part of the join is cut into the end of the neck at an angle of 105°, but is of course not cut right through. The cut leaves a ledge of around 4mm in thickness on the face that will accept the fingerboard. This angle is transferred to the wider end of the headstock and the waste wood is removed with a dovetail saw. As the face of the neck will be covered by the fingerboard, the headstock can be pulled into place at the join by two small screws. These will not be seen when the fingerboard is glued on or can be removed once the Titebond has cured (**photo 28**).

When the peghead is in place the final curve of the neck can be completed. Some players prefer a 'D' shape to the curve, and others a 'C' shape. The lute described here has a 'C' shaped neck.

By now things are beginning to look like a lute, and it is surprising just how light the partly completed instrument feels.



28 The neck angle at 105°

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- The Lute Society for plans, sheet music, literature and lists of teachers – **www.thelutesociety.co.uk**
- Touchstone Tonewoods – for timber and tools – **www.touchstonetonewoods.co.uk**
- Tonetech – as with Touchstone – **www.tonetechluthiersupplies.co.uk**
- Stewart-Macdonald – for plans, tools and all manner of luthiers' supplies – **www.stewmac.com**
- The Guild of American Luthiers – for plans and literature – **www.luth.org**
- David Dyke – for timber and tools – **www.luthierssupplies.co.uk**
- The Early Music Shop – for specialist strings, cases and pegs – **www.earlymusicshop.com**
- The Luthiers Nook – for pegs – **www.luthiersnook.com**
- Madinter Wood – for music, pegs and timber – **www.madinter.com**
- Keystone Timbers – for exotic timber – **www.tonewoods4luthiers.co.uk**
- Strings Direct – for all manner of strings – **www.stringsdirect.co.uk**
- Dictum – for pegs, timber and tools – **www.dictum.com**
- 'In the Making', Vimeo, a film about the work of Steven Gottlieb – **https://vimeo.com/96809354**
- *Historical Lute Construction*, Robert Lundberg. Published by the Guild of American Luthiers, 1972 – possibly the most comprehensive book on lute construction available
- *Make and Play a Lute*, R.Z.Taylor – published by Special Interest Model Books, 1983

NEXT MONTH

In the February issue, Shaun moves on to discussing the making and attaching of the soundboard and fingerboard

Lynton White

Cabinetmaker and fabricator, Lynton White, was recently challenged with creating a 1-10 scale model of an artist's impression of Clevedon pier, while working closely with the artist on the design to figure out how this would all come together. Using blueprints and scale drawings, Lynton was able to construct the 37m long piece of art. "I got to the point where I just had to accept that I was going to have to do it little piece by little piece," he says, "it was quite daunting."

Lynton has had a CF 741 combination machine from the Felder range for over eight years, but has been using Felder machinery for most of his career. He commented: "I first came across Felder machinery many years ago at an older cabinetmakers that I looked up to and it was at that point I decided one day I would have my own. I've had the CF 741 for almost a decade and it has never missed a beat. It is still as accurate as the day I bought it. I love it; it's great!"

The impressive pier, built by Lynton, features over 2,400 pieces in its construction and all of them were made using his combination machine: "I knew from the word go that this job was possible as I have a piece of kit that is accurate enough to repeat that many joints. I couldn't do them all at once, so I had to come back and reset them to the same angle time and time again, to ensure each one was absolutely accurate. The repetition of joints was fantastic and every single one is perfect."

Talking about the experience he has had working with Felder, Lynton said: "I am in the process of relocating to the Czech Republic, so the first thing I did was to call Felder Group UK to make sure there was a branch located there, and luckily there is. I will continue to work with Felder and hopefully expand the workshop with more of their machinery."

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Cabinetmaker and fabricator, Lynton White, with his Felder CF 741 combination machine

The 1-10 scale model of an artist's impression of Clevedon pier, which was created using the Felder CF 741 combination machine

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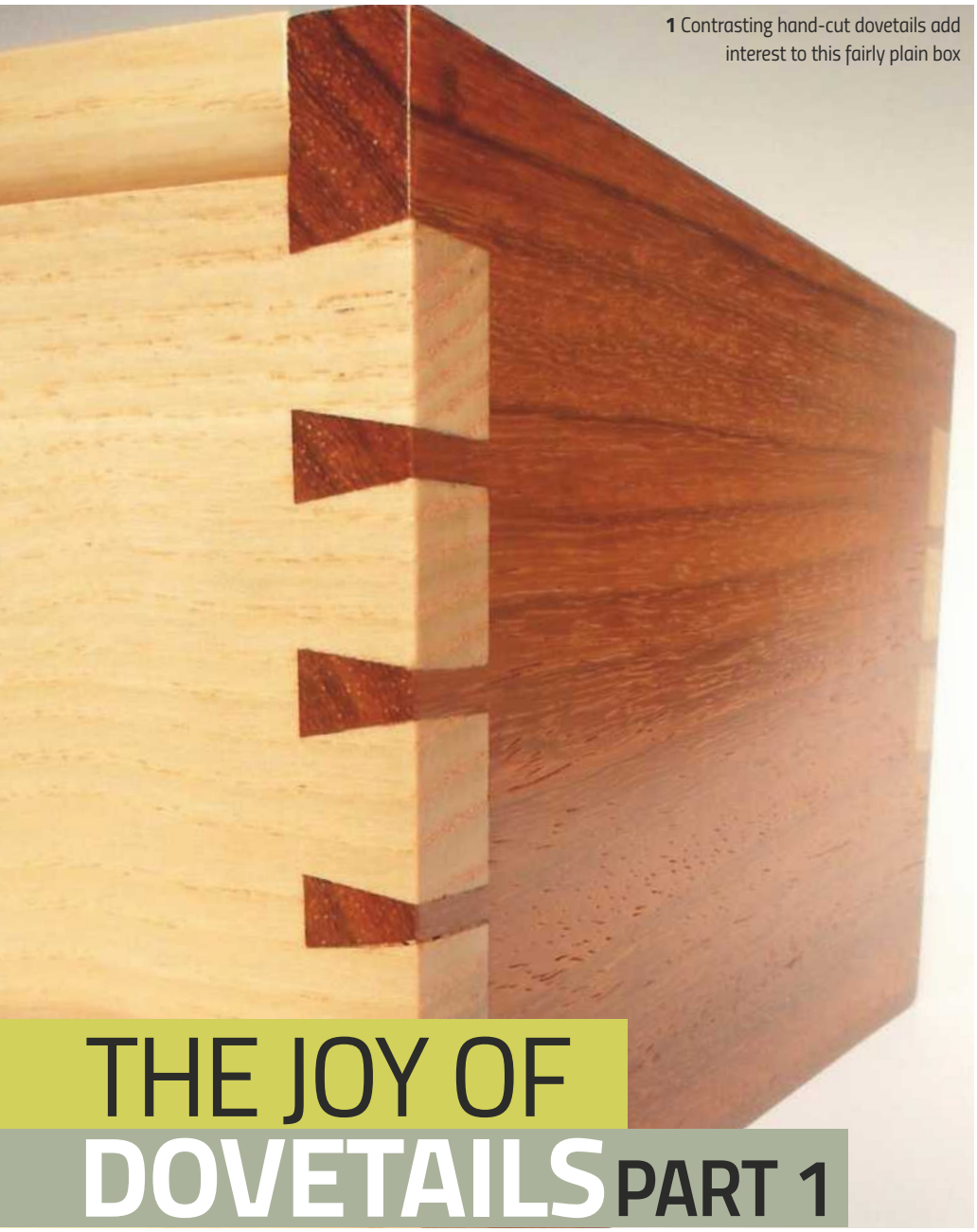
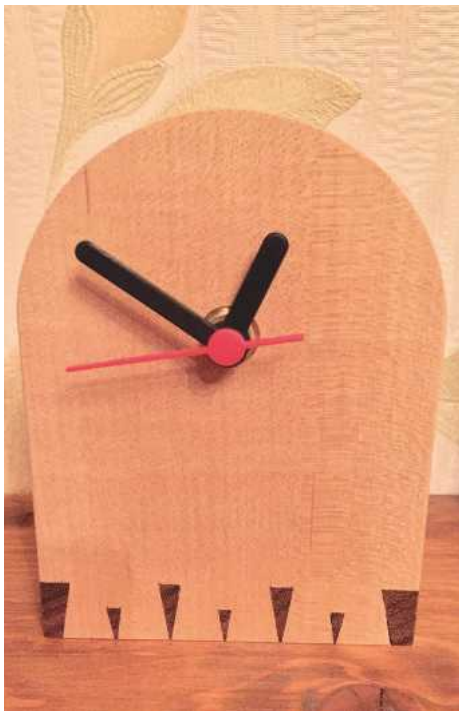


1 Contrasting hand-cut dovetails add interest to this fairly plain box

THE JOY OF DOVETAILS PART 1

In the first of a new four part series, **Michael Forster** discusses the essential kit and skills you'll need to start hand-cutting dovetails

2 The 'London' dovetail has pins tapering to a single saw-kerf. This is more fiddly than a basic dovetail but also, I think, more elegant



3 The joint that sparked my neighbour's satisfying reaction – the 'houndstooth' dovetail – which we'll cut in the final instalment – is more complex to execute but very satisfying

Over the phone, my neighbour's voice sounded urgent to the point of desperation: 'I'm looking at your website. I NEEEEED one of your little arts-and-crafts clocks (**photo 3**) – do you have one for sale? My husband will love it!" A few weeks later I was round there, chatting to a mutual friend, when the husband burst in and thrust the gift under our friend's nose. "Now, just tell me, how does anyone create something as fine as that?" he enthused.

Moments like that are undeniably enjoyable – but there are other reasons I love dovetails. Actually, I love most hand-working: the feel of the tool in my hand; the feel and sound of a sharp blade cutting timber; the visual satisfaction of watching the line being swept away and replaced by a crisp, precise edge or shoulder. And then there's the satisfaction of tapping together a beautifully-fitting, hand-cut dovetail – without a trial fit – and knowing that it's all down to me. Machines have many benefits – which I willingly exploit – but they don't give me any of that.

Hand-cutting dovetails is undeniably a skill but there's no mystique about it. For years, I thought it was simply beyond me – and my frankly shocking dovetails apparently confirmed that. I later realised that my real problem was that I'd simply never been taught to do it properly, and once that had been addressed, improvements quickly followed. So my hope, over the next few months, is to provide a thorough grounding, beginning with acquiring the essential kit and skills before hand-cutting a basic dovetail, and then ending with that beautiful houndstooth version. For this, you don't need a shed-load of expensive kit – just a few basic tools and one seriously good one. Then, the basic sawing skill must be practised carefully to develop precision. This modest investment of money and time will pay dividends in pleasure and satisfaction.

Good shooting

The first essential is timber preparation. The end of each board must be square and this is easily achieved with a shooting board and hand plane (**photo 4**). The shooting board is easy to make: a couple of MDF boards screwed together, leaving a flat 'runway' to the right (or left if you're left-handed) where the plane can run on its side against the edge. It then needs a fence fitted across it at right-angles. Add a piece underneath at the front to brace it against the bench, and it's 'job done' – although a few refinements can be made to improve it further. My shooting board is used so often (not just for dovetailing) that it lives permanently on the bench.

4 A simple shooting board will make accurately squaring the ends of timber (among other tasks) quick and easy

5 A cut line is needed to mark the shoulders. A simple square and a knife will get you started. However…

6 … as they run parallel to the ends, a gauge is simpler, quicker and less error-prone

7 Make sure it's a cutting gauge, with a blade (left) or a cutting wheel (right) – not a marking gauge, with a pin

8 A range of cutting gauges at a variety of prices. The Silverline (left) is quite adequate at about £20

9 The simpler the operation, the less chance of error. This 'saddle' marker from Veritas lets me mark the end and face lines in one go. I love it!

10 A good pair of dividers – another tool with a multitude of uses. Note the adjusting nut to prevent the setting slipping

11 At a fraction of the price of its rivals, this Veritas 16tpi rip cut dovetail saw is a rare example of high-end kit at a bargain basement price

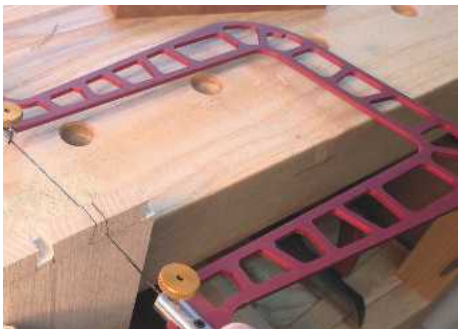
Making a mark

We'll need to mark shoulder lines parallel to the ends of the boards. These need to be cut rather than pencilled, and for that you can get by with a pretty basic marking knife and an accurate square – but as they run parallel to the end, a good cutting gauge will greatly aid both speed and accuracy (**photos 5-8**). Make sure it's a cutting gauge, with a blade or wheel and not a marking gauge, with a pin, as the latter will tear rather than slice the grain, leaving a ragged shoulder. As well as being much more precise, a cut line has another advantage: it provides a tactile reference to feel the chisel tip precisely into position and hold it there while the final cut is made.

When it comes to marking the tails themselves, most people start with a square and a sliding bevel. However, if finances permit, a dovetail template – especially the 'saddle' type' (**photo 9**) – is quicker and more precise; it lets you mark both the end and face lines without moving the tool – eliminating one classic source of errors. I use the Veritas ones, which have the same angle on both sides. The traditional angles for dovetails are 1-in-8 for hardwood and a steeper 1-in-6 for softwood. Some reversible templates are available that combine both on the same tool but that's asking for errors. I only have the one with the correct angle (1-in-8 since I work in hardwoods) on the bench, so there's no chance of my using the wrong angle at some point. Incidentally, some people are surprised that I use a propelling pencil, but it really is better. The problem with the traditional finely-sharpened wooden pencil is that the point either wears or breaks as it traverses the timber, and the thickness of the line changes. A line of constant thickness is much more accurate and easier to follow.

Spacing the tails

Something that really worries beginners is how to get the spacing of the tails and pins right. Next month I'll show you how to do it using just a pair of dividers (**photo 10**). It's important that the dividers can't slip – so avoid the bargain stationers and visit the tool suppliers' websites instead. A good pair of dividers isn't expensive, and will be used for a range of tasks, so is definitely worthy of the investment.



12 You'll need to remove the bulk of the waste with a fretsaw (not a coping saw). This Knew Concepts one is great but expensive…

13 … but this jeweller's saw from Workshop Heaven is a snip at just £9.50

The dovetail saw

This is the most crucial tool in the dovetailing kit. I know because changing mine instantly turned my early frustration and near-despair into hope. I'd say a good saw is vital – whatever else you economise on, you won't regret spending on a good saw. However, there's no need for extravagance as my go-to dovetail saw amply demonstrates (**photo 11**).

It helps to understand what makes a good dovetail saw, so let's start with the teeth. Essentially there are two types of saw tooth – crosscut for cutting across the grain and rip cut for cutting along it. A rip cut saw really is best for dovetails. The teeth should be finely set, or the kerf will be so wide that the blade can slop around in it and wander off-line.

A nice thin blade is helpful – with a heavy stiffener along the top – pushing it down through the timber so there's no excuse for forcing the saw. Add a traditional pistol-grip handle and we have the traditional dovetail saw.

Many fine makers, some of them friends of mine, now use Japanese saws, but for some reason I've never been able to get on with them. So I don't feel able to comment except to say that good advice, from someone who can, is vital before choosing and using one.

Coping saws don't cope

After cutting the cheeks of the tails, we'll need to remove the bulk of the waste from between them (**photo 12**). I can't remember how many books and articles I've seen recommending a coping saw for this stage – I was even taught it on a 'professional' joinery course in the 1960s. Please don't. Coping saw blades are too coarse to slip nicely down the kerf cut by a fine dovetail saw without damaging the cheeks. I use a Knew Concepts jeweller's saw, which I love but carries an eye-watering price tag. However, the basic Workshop Heaven Jeweller's Saw is excellent, and affordable at £9.50 (**photo 13**).

Chop that waste

With the bulk of the waste thus removed, we'll be slicing away what's left with a bevel-edged chisel and mallet. I'd suggest three chisels (**photo 14**): 6mm (¼in) to work between the tails, with 18mm (¾in) and perhaps 12mm (½in) to clear the wider sockets between the pins. You might find a 3mm useful, too, but it's not essential at this stage. Unlike dovetail saws, chisels are among the workshop basics and will serve well in a variety of tasks – so the investment is never wasted.

And the mallet? I wouldn't go overboard at this stage – pop into your local DIY shop and get a traditional carpenter's mallet. It's cheap enough, so you can decide later if you want to get something more suited to you – perhaps a little heavier or lighter, or differently balanced. You won't really know that until you've used one for a while.

'Scalpel, please'

When we've cut the tails, we'll need to scribe their profiles onto the end-grain of the pin piece. If you use a pencil for this (assuming you can get it in there), the sockets will be so loose the tails will just drop into place – and out again!

For the more basic dovetails (**photo 15**), where there is plenty of room between the tails, I use a purpose-made marking knife with a double bevel on one side (so that it can be used either-handed) and a flat face on the other (**photo 17**). It's robust enough to take a bit of pressure, and I can have the flat side against the tail every time to ensure a super-accurate scribe.

However, in much finer dovetails (**photos 2 & 3**), there isn't room between the tails to get that blade in. So for those I use a scalpel. Swann Morton do a good range of blades and handles and I have found the No.4 handle and No.26 blade (**photo 18**) to be the best for fine dovetailing work (**photo 19**).

That covers the essential kit – hopefully with enough time left before next month's article to get in a little skills practice with the saw. So that's the next consideration.

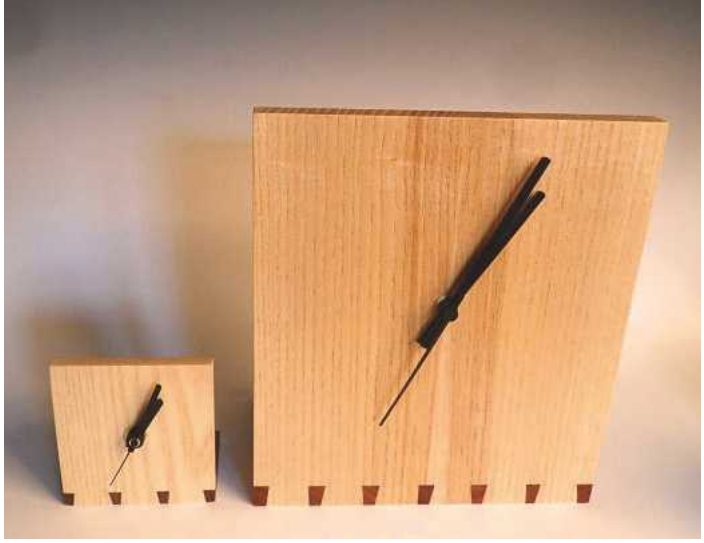
Practice makes precision

The first saw cuts we make – across the ends of the tail board – will need to be perfectly square to the face. If they're not, then the joint won't fit. So now's the time for some practice cuts.

The key to practice, as I learned as a music student, is repetition. Imagine, for a moment, a cart-wheel rolling down an unmade country lane. If it were rolled many times, it would begin to wear a rut. And if – stretch your imagination for

14 Cutting back to the shoulder-line is a critical task in dovetailing. A few good bevel-edged chisels will make it much easier

15 Some kind of marking knife is essential for scribing the profile of the tails onto the pin board



16 I made clocks like these as learning and practice pieces – when you do a good joint, why not show it off?

17 These double-bevel knives are excellent for most basic dovetailing

a moment – it followed precisely the same course each time, the rut would deepen to the point where it could just be started off and would perfectly follow the rut through to the end.

Get the picture? Muscular memory is like that rut: if it's cut deeply and accurately (by faithful repetition over time), then the process will become habitual. That's how a musician learns fast and complicated finger movements: by careful repetition until it is actually impossible to get them wrong.

Take a piece of scrap timber and mark a series of lines across the end and then practise starting the saw. I use a pinch-grip to start the saw – I can tweak the angle either way to line it up and then keep it in line (**photo 20**). Don't bother to cut very deep – just make a clear impression that you can check with a square. When you've used up the end of the board, cut it off, shoot the new end square and repeat, checking frequently. I set myself a target of 10 consecutive perfectly-square cuts.

Once you're confident with that, you might like to apply the same principle and practise the sloping cuts down the face of the timber. The first few cuts might be a little wayward but practice will tell.

Hopefully, this will give you a start toward cutting some seriously fine and beautiful dovetails – let's meet up again next month and make a start!

18 However, for very fine dovetails, only a scalpel is fine enough to slip into the space available

19 This Swann Morton No.4 handle and its long No.26 blade will reach where others won't go

20 I use a 'pinch' grip to position the saw at the start

21 Practise on scrap until every cut is square to the face across the edge

NEXT MONTH

In part 2, Michael looks at marking and cutting dovetail tails

SUPPLIERS

Some of the kit will be available at local DIY outlets, and you might find it worthwhile looking at craft markets – something like a vintage cutting gauge, for example, might well be a bargain buy there. For the more specialist kit, you should be well catered for by any of the following (far from an exhaustive list, but all very much recommended):

Axminster Tools & Machinery – **www.axminster.co.uk** – a vast range of hand and power kit, good returns policy and customer service

Workshop Heaven – **www.workshopheaven.com**

Classic Hand Tools – **www.classichandtools.com**

Wood Workers Workshop – **www.woodworkersworkshop.co.uk**

So there you have it: four great sources of kit, all run by craftspeople with a passion for woodworking and a solid base in skills, experience and enthusiasm. Happy hunting!

THE PSYCHOLOGY OF SAWDUST

In the first of this new series, **Anselm Fraser**, principal of The Chippendale International School of Furniture, looks at woodworking as a creative outlet

Woodworking, and teaching woodworking, has been my life and all of us who are somehow involved in woodworking, either as amateurs or professionals, love the whole business of working with wood.

In this new monthly series, I'll try to pass on my love for woodworking, as well as some thoughts on how you can get more from your hobby or business. But for me, the important first thing is that few of us bother to consider why we like woodworking so much. The answer is both primal and at the core of who we are as human beings, and I was intrigued by a book – *Flow: The Psychology of the Optimal Experience* – by University of Chicago psychologist, Mihaly Csikszentmihalyi.

Anselm teaching students on a recent short course

In it, Csikszentmihalyi describes what he terms as "elements of enjoyment," which include such things as the challenge involved, the merger of action and awareness, setting clear goals, the degree of concentration, and an altered sense of time.

The psychology bit is that today's society is primarily focused on money and what money can buy. The process of making something, whether it's painting a picture or constructing a chest of drawers, doesn't carry the same value. What we've forgotten is that there is a personal and mental value in the making of things, because it gives us personal fulfilment, which, in turn, promotes mental well-being. Making things involves the elements of enjoyment that are so important to us mentally.

Inspiration & perspiration

In today's world, dominated by smart phones and tablets, and in which we buy almost everything we need, we no longer do those creative things that provide pleasure, meaning and pride.

The fact is that making things improves psychological well-being and research shows that activities such as woodworking are useful for decreasing stress, relieving anxiety and modifying depression. Therefore, Csikszentmihalyi says, doing something creative and practical can be a natural antidepressant. It is that combination of doing something creative to make something practical that makes woodworking so good for mental well-being. Simply, you are using your mind and hands to make something functional.

According to psychologists, creativity is the ability to solve problems or create new things in novel ways. Creativity therefore involves original thinking in the creation of something that actually works.

While some people seem to be naturally creative, there are things you can do to increase your own creativity. As Csikszentmihalyi notes, creativity requires both a fresh perspective combined with discipline.

Or as Thomas Edison famously suggested, genius is 1% inspiration and 99% perspiration. It's an approach that we try to instil in our students. They may feel that they have little or no creativity, but the process of thinking through a design or woodworking challenge will naturally unlock the creative answer… and the one after that… and so on.

The late, great poet Maya Angelou said: "Creativity or talent, like electricity, is something I don't understand but something I'm able to harness and use…. The important thing is to use it. You can't use up creativity. The more you use it, the more you have."

I've always instinctively known that and, as a teacher, one of my great privileges is to pass that understanding on to others.

FURTHER INFORMATION

To find out more about courses offered by The Chippendale International School of Furniture, see **www.chippendaleschool.com**

GOING TO EARTH

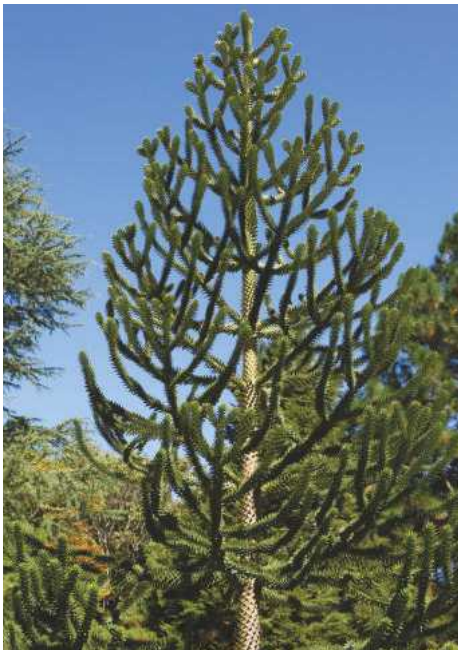
The end of autumn finds **Dave Roberts** circling back to The Old Vic' through a different kind of borderland

After the long summer, and the flames-and-embers blaze that has been this autumn's colours, the year is spiralling down into the long nights of winter. It's a borderland of a different kind: it's a time of abscission, when leaves fall, the clouds pull the horizon close around the hill tops, and natural energy draws down into the valley, and turns inwards. It is also, in part, a time to prepare for the return of spring; for ideas to grow, and connections between them to develop in ways that are often organic, and sometimes harmlessly occult in the operation of their happy coincidences.

Dark arts

Take, for example, our newly hatched plan to plant a monkey puzzle (*Araucaria araucana*) – a tree which The Woodland Trust suggests, "is unlikely to be confused with anything else," thanks, not least, to its distinctive shape, spiked trunk, and tiered branches. However, when it was first brought from Chile to Britain in the late 18th century – having been propagated on board HMS *Discovery*, a ship named for her predecessor, the Whitby collier commanded by James Cook – *Araucaria araucana* was known, less memorably, as the Joseph Banks pine. By the 1850s, though – the period during which The Old Vic' was built – the slow-to-cultivate *Araucaria araucana* was available in sufficient quantities to have become a popular ornamental tree, and to have acquired the now familiar name, 'monkey puzzle'. Unfortunately, over the next 140 years the corresponding reduction in *Araucaria araucana*'s numbers in its native Chile led to its being listed in Appendix 1 of the Convention on International Trade in Endangered Species (CITES).

That aside, it was one of those coincidences of connection that subsequently found me on Yorkshire's Jurassic coast, and just off Whitby, a town that tucks itself under the moors with its face to the sea, and which, of course, claims James Cook for its own. The real twist in the monkey's tale, though, comes from the fact that Whitby is famous for its jet, which, while being a semi-precious gemstone, is one that is organic



Monkey puzzle: *Araucaria araucana* is, "unlikely to be confused with anything else"

Yet another borderland – Yorkshire's Jurassic coast on the margin of winter, home to Whitby jet and the *Mary Ann Hepworth*...

in origin: like bog oak, jet is derived from the action of time and extreme pressure upon timber – the fine-grained timber of a near relative of *Araucaria araucana*, curiously enough, which grew on these islands during the Jurassic age. So, instead of being merely thousands of years old like bog oak, jet is the better part of 200 million years old.

Wooden stone...

Of course, there are many uses for bog oak in woodwork; there is, as far as I'm aware, little occasion to use jet. Still, it was while bobbing about on the waves of coincidence on a former lifeboat, the *Mary Ann Hepworth*, that I spotted this planking – teak by the look of it – that forms her cabin (I'm sure there's a proper nautical term for it), and which is both laid on the diagonal and curved. 'Course, it would've been handy if I'd asked exactly how it was constructed, but steam-bending is commonly used in boat-building, and some decking, I believe, uses fixings that are countersunk and covered with wooden plugs or dowels. I wonder, though, what the staining around these fixings suggests? Epoxy? Surely not something ferrous in a vessel intended for sea, though I gather that iron fixings were used in some commercial fishing boats whose working life wasn't expected to exceed that of the fixings.

... on which even the caulking adds interest to the 'figure' of her curved planking

Dowel construction: the stumps and posts of these broken gateposts will be rejoined using a woodworking technique

Creating gentle curves from granite setts put me in mind of…

… Yard Sale Project's Ian Spencer, who designed curvaceous chairs carved from blanks built-up from right-angled hardwood blocks

All the same, the overall pattern, which is reminiscent of a carapace, is another of those details to be pirated and filed away for some possible future project.

… and wood & stone

Speaking of stone, shapes and dowels takes me back to The Old Vic' where – notwithstanding the fact that enthusiasm for outside projects, which comes so easily when the sun is shining, is harder to summon here on the margins of winter – there are still unfinished jobs to be done out of doors. There's an acre of exterior woodwork in need of attention, of course, but unfortunately time's running out on that for this year; a more all-weather task is repairing the stone gateposts which, at some point, have been broken off at ground level. Extracting the stumps, which are about one third the length of the above-ground posts that had to be salvaged from the shrubbery, was a job for Tom the Digger who's a whizz with ground works and all things hydraulic. Restoring the posts, on the other hand, is a job for which I'll borrow a woodworking technique.

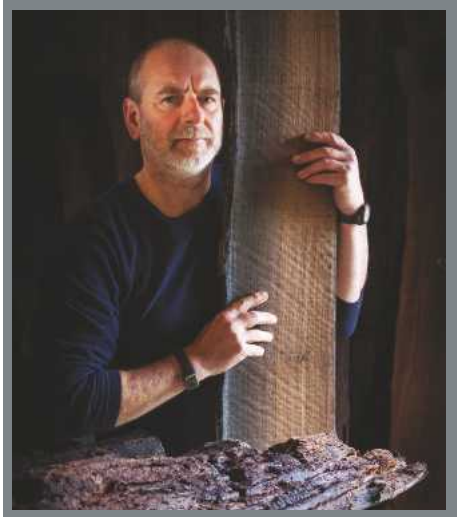
The plan is to dowel each post together using four M16 or M18 stainless steel threaded rods, and like any dowelling job, it's going to require a jig to ensure that the holes line up. All that's needed is a frame that can be slipped over the stumps and posts and held square, and which supports two layers of ply spaced a couple of inches apart so that the guide holes in them will keep the bit in line while drilling. That said, great accuracy isn't a requirement: the rods will be set in the posts using a heavy-duty epoxy, and the holes in the stumps will be drilled oversize to allow some wriggle room, and filled with epoxy before Tom lowers the posts onto the stumps. Once set, the epoxy will eliminate play and, in combination with the posts' weight and the keying together of the mating faces, fix the four dowels firmly enough to hold each post upright.

Another task in which I'm trying to beat the oncoming winter is laying a section of paving using reclaimed setts. I only mention this because the design involves making gentle, intersecting curves from 4in granite cubes – a combination that put me in mind of the designs from Yard Sale Project's Ian Spencer, who carved curvaceous chairs from blanks assembled using what he called the 'chaos' of rectilinear hardwood blocks.

I'd like to be able to say that, instead of their curves being sprung by eye and the setts chosen for their shape and colour, much as you might choose timbers or veneers, the geometry of my stone arcs employed the Fibonacci sequence found in the leaves of many flowers, and so bring us back full circle to the monkey puzzle tree and the patterning of its glossy, armour-like leaves. Perhaps, though, that would imply too much design; call me superstitious, but sometimes I think it's better to leave things to chance and just see what turns up.

FENLAND BLACK OAK

Hamish Low is an aficionado of bog oak; he has haunted the East Anglian fens for more than a quarter of a century, harvesting as much of it as he can find, and developing methods to successfully mill and dry it. "Everybody wants the jet-black bog oak," he says, "but it's usually less dense," partly, he believes, because the colour change requires the presence of water-borne irons, which suggest that the tree was more porous, or had been subject to some decay before fossilisation began. This in turn may be why, Hamish reckons, it's rare to find bog oak that's not only black throughout but also dense and free from signs of decay or infestation. By the same reasoning, timber that was tighter or more quickly preserved was presumably less susceptible to water penetration, and it's this that Hamish believes produces his preferred boards: shading from black on the outside edge to a mellow amber towards the heart, they're not only harder than the all-black timber but, at more than 900kg/cu.m, more dense than Indian rosewood



Hamish Low has sought and salvaged bog oak, the part-fossilised timber of the East Anglian fens, for over quarter of a century

LIVING TIMBER: COLOUR CHEMISTRY

We're so used to looking at the browns* of timber's dead and dry cell walls that it's easy to forget that they originally supported the solar engine that was the tree's canopy – at least until an autumn like this year's comes along.

The green of summer leaves is the colour of chlorophyll, the pigment that absorbs light energy to power the process of photosynthesis – the combination of CO_2 and water to create the carbohydrates that are the plant's chemical energy store. Leaves also contain carotene – which is yellow-orange – and, later in the season, anthocyanins, which are reddish. It's only when the production of chlorophyll begins to reduce in response to the autumn's shortening days and falling temperatures that the pigmentation of the carotene and anthocyanins begins to become visible, growing stronger as, firstly, chlorophyll production ceases and the last of the leaves' green pigmentation breaks down and fades; and secondly, as any sugars that are trapped in the leaves as they prepare to separate from the branch are converted to anthocyanins.

This sequence of events is affected by climatic conditions: a cold snap will tip leaves over into their autumn colours by hastening the breakdown of chlorophyll; conversely, mild weather slows this process while at the same time increasing the rate of anthocyanin production, leading to much warmer colours. If this mildness is accompanied by brightness, then photosynthesis spools down more gradually, leading to the continued production of sugars, and also of anthocyanin. These effects are further compounded in dry conditions, when the normal transport of sugars from the leaves is impaired, leading to even higher levels of anthocyanin, and deeper, richer colouration.

Sugar but not frosted: a mild autumn sees residual sugars in leaves converted to anthocyanins

* There's no such thing as 'just brown', of course, as attempting to colour-match woods by mixing your own stains using red, blue and yellow pigments soon teaches you

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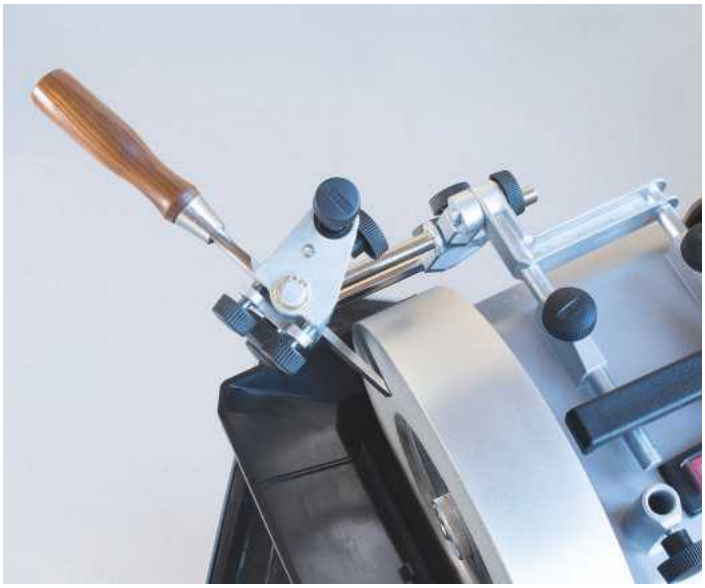

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The MB-100 has an adjustment line that allows you to fix the sharpening position based on the optimal setting for each tool and jig. You can mount the MB-100 on the machine either vertically or horizontally, whichever is most convenient for the item you intend to sharpen.

Compatibility

The Tormek MB-100 is compatible with the following Tormek Jigs: Knife Jigs SVM-45, SVM-140 and SVM-00; Axe Jig SVA-170; Scissor Jig SVX-150; Short Tool Jig SVS-38; Gouge Jig SVD-186; Multi Jig SVS-50; Square Edge Jig SE-77 and Tool Rest SVD-110.

Please note that the MB-100 is designed solely for sharpening with Tormek diamond grinding wheels. It is not suitable for other Tormek grindstones, as they have to be dressed, which is not possible on the side.

To find out more, visit the Tormek website: **www.tormek.com**.

LETTERS

★LETTER OF THE MONTH

GROWING WITH WOODWORKING

Hi Tegan,
Having just read Peter Bishop's 'By Hand or Machine', I thought I'd just chip in with my two penn'orths.

For the last couple of years, I have been able to indulge my love of woodwork. My skills (such as they are), were gained in woodworking class at school some 60 years ago (I did manage an O level), but have not had the facilities in the intervening years to carry on as a hobbyist.


Robert's chair-side table with drawer, made in oak

Recently I discovered a local workshop (Multi Skills Workshop in Polegate, East Sussex) Where I could have a go at turning, a skill I have had an interest in since school. I've made a number of decorative items but then, having got turning out of my system, decided to have a go at something bigger in order to stretch myself. Thus I embarked on a couple of bigger items: a garden chair in pine and a chair-side table, with a drawer, in oak. These I completed successfully and with pride. Sizing, planing and mortises & tenons were completed using machines. Dovetails were made using hand tools, with a little machine assistance, as were all other operations.

For me, the use of machines allows accuracy (like Peter, I'm not that good at making things square), and repeatability. It also eliminates what I see as the drudgery. I do the design and finishing, and the satisfaction of successfully fulfilling those designs is what gives me pleasure and satisfaction.
Best wishes, **Robert Murray**

Hello Robert, and many thanks for writing in and sharing your thoughts regarding the 'hand vs power tool' discussion. It's great to hear you've been working with wood all these years and even better that you've recently discovered turning – your completed pieces look to be very competent indeed. It seems you have mastered a great deal of techniques and are utilising those machines and equipment to best advantage.

I do hope you continue to enjoy your woodworking journey as well as the magazine. Best wishes, **Tegan**


A variety of turned items made by Robert

ONE BOWL GOOD, TWO BOWLS BETTER


Tony's project makes use of both halves of a bowl

Dear Tegan,
Some months ago (I forget how many), Les Thorne wrote a delightful article in *The Woodworker*, explaining how he'd turned a bowl that looked as though it was emerging from an old fence post.

His project involved turning an accurate hemisphere on to one end of a block of wood. He then took the block off the lathe and cut it in half through the dome. Laying one half on its side, he remounted it on the lathe and turned the inside of the bowl.

I was inspired by Les' article, and wondered if it might be fun to use both halves in the same way. The result – made from four lengths of 75 × 75mm pine fence post glued together – is attached. It makes a perfect dish for olives, with a built-in bowl for the stones.
Regards, **Tony 'Bodger' Scott**

Hi Tony, yes, I'm trying to remember the exact issue but the important thing is that the item you've created is both functional and aesthetically pleasing. A great turning hack that I'm sure many will want to try for themselves. Best wishes, **Tegan**

OAK CENTRE PIECE

Dear Editor,
I'm after a bit of advice. I've got an oak log cut into slices for my wedding; I was just wondering which oil you would recommend to use on oak – it will be used as a centre piece.
Regards, **Richard John**

Hi Richard, I'm assuming the oak is air-dried and not green (as in freshly sawn). You could use almost any sort of oil on oak, with Danish and tung oil traditional favourites. If using linseed oil (which smells wonderful), make sure you use boiled, rather than raw – boiled will dry more quickly.

Rustins Finishing Oil will give a lovely satin finish and can be applied with a brush or cloth. You probably only need a couple of coats, wiping off excess oil after about 15 minutes. Depending on the slice size, you could simply dunk them in a container filled with boiled linseed oil and hang them up to dry, though this can be messy. Either do this outdoors or put down plenty of newspaper! Hope this helps, Regards, **Phil Davy**

TURNING BOWLS WITH A SCRAPER

Dear Tegan,
I am writing in response to John's letter 'turning bowls with a scraper', featured in the November issue. He implies that he has used a spindle roughing gouge to turn his bowl, although this is not clear. I would implore you to make it clear that a spindle roughing gouge should never be used on a bowl blank. This is not heresy, but safety. The SPINDLE roughing gouge is designed to work with the grain, and not the alternating side/end grain of the bowl blank. The tang – into the handle – is not designed to take the strain, and will at best bend, but more likely snap. The other tools mentioned can be used safely on a bowl blank.

Catches mainly come about because the tool is not supported on the toolrest, or because the bevel of the gouge is not supporting the cutting edge of the tool. John should seek out a copy of Keith Rowley's *Woodturning: A Foundation Course*, along with its companion DVD. This will get him on the road to safe woodturning.
Kind regards, **John Peachey**

Hello John, and thanks for getting in touch and setting the record straight on this one. As I've said before, we endeavour to always promote safe practices in the magazine and apologise that this was not picked up. I urge any turners out there to seek appropriate tuition and professional advice before starting out, which will help to ensure you are turning in the safest possible way. Thank you again. Best wishes, **Tegan**

PRESERVING TIMBER

Engine oil was used to treat the floor of this trailer – a cheap and effective method

Hi Tegan,
Following on from Peter Bishop's excellent series on wood fungi, rot and preservatives and also anticipating his new series on setting up a workshop, I'd like to share some advice that I got online from several people when building and equipping a wooden workshop (which is what I have just done). They recommended that I use car engine sump oil as a preservative on the floor joists and underneath surfaces of the floorboards. This is not, as such, a preservative as a barrier to insect, fungi and moisture ingress to the wood, which in my case had already had pressure preservative treatment to the wood. It's not something that you would do to the whole shed, as the colour, as you might expect, is pretty terrible. But for those areas that cannot be re-treated with preservatives, this seems to be a good old method that will probably work. Nevertheless, I still placed the shed on concrete paving slabs above the level of the surrounding garden to minimise standing water on the floor timbers. When I was working in the Amazon and west Africa, I used to brush diesel fuel onto all my equipment, electrical and signal cables, to stop termites and other insects damaging the plastic covering, and this certainly worked.

In the same issue (Aug 2018), Phil Davy commented on the changing face of retail sales in the face of internet buying. One of the aspects of losing retail shops – especially tool shops – is the diminishing ability to compare and try equipment before buying. Online recommendations only go so far and range from those '1 star' people who complained that a jack plane didn't seem to have a motor to '5 star' for items that are being heavily used, day-in, day-out by professional workers, and thus expensive. I note that the magazine does very good reviews of selected tools and equipment every month, but I wondered whether the magazine, in line with other hobby titles, from computer software to hi-fi equipment, could do comparison reviews of similar equipment that not only compare their respective qualities, pros and cons, but also recommended which user they were aimed at. Much equipment is expensive, mainly because it needs to be made robust for use every day of the year by professional woodworkers. But if you only occasionally use, say a router, would the cheap one from Aldi be a better bet than the expensive DeWalt one? Are the cheap chisels from your discount store – which need sharpening after every use – a better buy than the expensive Japanese chisels, when you may only use a chisel once a month?
Best regards, **Dr Colin R. Lloyd**

Hi Colin, I'm glad to hear you're enjoying the magazine and that so many articles have come in useful. I've had a look online and it seems you're not alone in using the engine oil method as a preservative and stain – it's certainly a cost effective solution. Regarding your comment about testing, this is something we're looking to implement and you're not alone in expressing an interest in comparison and group tests. We'll try our best to roll this out, although it does involve a lot of product sourcing and relying on manufacturers to send these in, which isn't always easy! Anyway, leave it with us and we'll do our best to make it happen. Best wishes, **Tegan**

WRITE & WIN!

We always love hearing about your projects, ideas, hints and tips, and/or like to receive feedback about the magazine's features, so do drop us a line – you never know, you might win our great 'Letter of the Month' prize, currently the new Trend ¼in 30-piece Router Cutter Set, worth over £100. Simply email **tegan.foley@mytimemedia.com** for a chance to get your hands on this fantastic prize – good luck!

READERS' HINTS & TIPS

veritas innovation in tools

For the next 14 issues, in conjunction with Veritas and BriMarc Tools & Machinery, we're giving one lucky reader per month the chance to get their hands on a fantastic low-angle jack plane, worth over £250! Ideal for shooting mitres, working end-grain and initial smoothing, this must-have hand tool also features a combined feed and lateral adjustment knob for fast, accurate changes to depth of cut. To be in with a chance of winning this fantastic piece of kit, just email your top workshop hint or tip to **tegan.foley@mytimemedia.com**, and if you can, please also attach a photo illustrating your tip in action. Good luck! To find out more about Veritas tools, see **www.brimarc.com**

CLAMPING UP

Graham's large commas are cut in plywood

Dear Tegan,
I left school at 15 and started a three-year apprenticeship at 16 with a local company. I have picked up many tips over the years but there is one I find very useful. Many times when one needs to clamp together extra long panels, this method always seems to work. What I do is clamp one end down, biscuit the joints, then cut several large commas in plywood. I then drill into the commas offcentre to create an eccentric cam, place my boards pre-glued onto a flat surface, put the cams up against my workpiece and then screw them down offcentre, so that then when you turn them they create pressure on the workpiece, thus clamping them together.
Graham Underwood

Hi Graham, thanks for the interesting tip. Obviously as an Editor I'm a big fan of commas, but I've never seen any made in plywood! I'm sure other readers will enjoy reading about your innovative clamping method and will want to give it a go themselves! Best wishes, **Tegan**

ORIENTAL MEDICINAL HERB JARS PART 1

In the first of this series re-run, **Dave Roberts** copies a ceramic artefact salvaged from the deep...

This month I'm making a pair of oriental herb jars using a piece of lignum vitae, which is one of my favourite timbers as it's so durable and takes a superb finish without having to work too hard at it. The list of uses for this timber is endless: it was used in the shipping industry, for example, for making bearings, as 30% of the weight is made up of natural oils.

These jars, meanwhile, were a commission from a customer who came in with a photo that he'd enlarged to the size of jar he wanted; luckily for me, the piece of lignum I had was just the right size to make them both, with just a few millimetres to spare. From the picture the customer had taken, I could see that the original jar was made of decorated ceramic with a black lid, which we matched with Macassar ebony and a lignum vitae knob. Both of these timbers were bought from Yandle & Sons Ltd.

TOOLS YOU'LL NEED

- Screw chuck
- Combination chuck
- Jacobs chuck
- 50mm Forstner bit
- Parting tool
- 9mm gouge
- Hollowing tool
- 6mm scraper
- Detail gouge

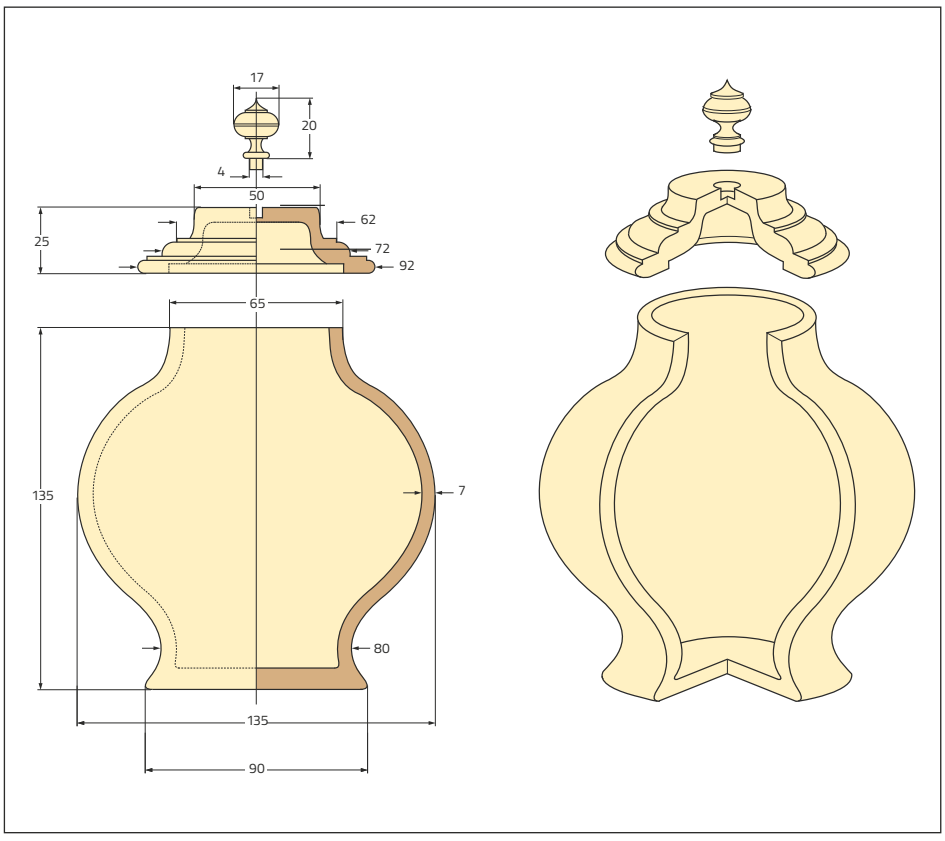


Fig.1 Apothecary jars

I don't think the customer's actually going to use the vases for storing herbs, he just liked the shape of apothecary jars, which is fine by me: it gave me the chance to turn something more interesting and pleasurable than table legs and bed knobs! The original ceramic containers were made in the 15th century, and would have held herbs used in oriental medicine – what is called alternative or complementary medicine today. The shape of these jars recalls an age, however, when we too would have relied upon apothecaries and herbalists for our medicines. These men were mainly monks, and they would also have had their own herbariums (classified collections of herbs), and herbaries (herb gardens) from which they produced creams, salves and medicines. Ironically,

1 Turn a dovetail on the blank ready for the combination chuck

Dave's herb jars are based on the 15th century blue and white glazed pottery that originated in the Chu Dou region of Vietnam

most of what we call 'modern medicine' is also based upon plant extracts, the properties and use of which were well known long before the original of these apothecary jars was made.

When turning a matching pair of items, it's best to use just one piece of timber so that you can guarantee the grain pattern and colour are going to match. In the past, I've made identical items using timber from two different sources, and have been disappointed when the colour or grain hasn't matched. So, using one piece of timber to get a matching pair is the way to go. Also, when selecting the timber, make sure it's free from shakes – which are bad news – and disfiguring knots.

Preparing the blanks

Cut both blanks to the same length, find the centres at both ends, and mount them between centres on the lathe. Set the speed to around 1,000rpm; this is plenty fast enough to turn both the inside and outside of the jar.

The first job is to turn a dovetail to suit your combination chuck. I'm using the Axminster four-jaw chuck with the mega jaws, which have great holding power. Use a parting tool to turn the dovetail, and check it with Vernier callipers to make sure it's the right size.

Hollowing out

Fix the blank into the jaws and make sure it's tight; if it's not tight you'll get a lot of vibration. It will help tremendously if you drill out as much of the inside of the blank as you can; this will take the load off the hollowing tool, and you'll have less work to do. I use a 50mm Forstner bit for drilling out waste, for which the lathe is set at around 400rpm. Remember to stop periodically in order to clear the debris.

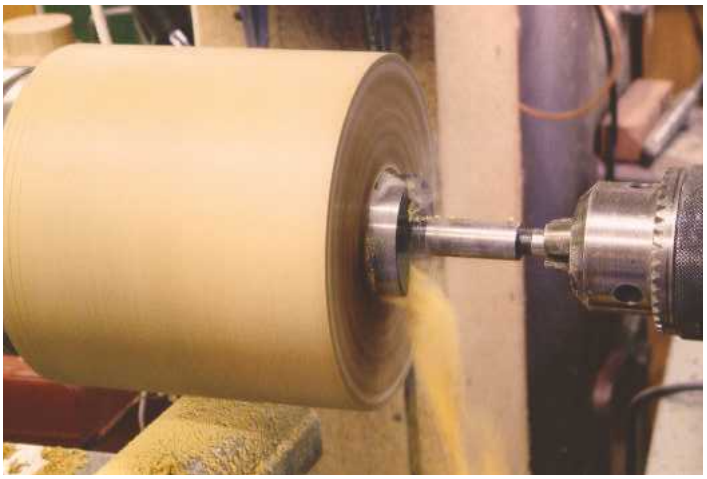
Before you hollow the blank, turn it to the finished shape; a 9mm gouge will work wonders on a timber like this. Also, if you keep the bevel rubbing it, lignum vitae is one of those timbers that'll almost polish itself.

Once you've turned the outside shape you can then start work on the inside. Though you can use

THE HOI AN: RESCUED FROM THE DEEP

This project is a copy of an oriental medicinal herb jar that was salvaged from the wreck of the *Hoi An* – a Vietnamese cargo vessel that was carrying about 250,000 ceramic items when it sank in the late 15th century. The cargo, which is known as the Hoi An Hoard, was only brought to the surface in 1987, when it finally came within the reach of our deep sea diving technology. The recovered artefacts are made of a hard heavy blue and white glazed pottery that originated in the Chu Dou region, 6km from Hai Dong, which was the largest centre of ceramic production in medieval Vietnam. Despite the centuries that they spent underwater, the majority of the *Hoi An* pieces remained in excellent condition, which is a testament to the quality of the ceramics produced by those medieval Vietnamese kilns. Interestingly, the lignum vitae that I've used to make these apothecary jars is said to have medicinal properties of its own

2 Put the blank into the chuck and make sure it is tight



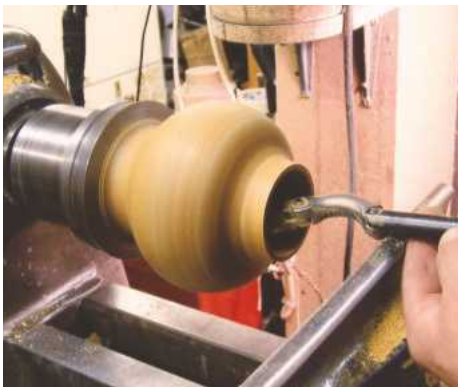
3 Bore out the centre with a Forstner bit. This will make it easier to hollow

the gouge to turn part of the way, it will be impossible to reach all the way, and that's where a hollowing-out tool comes in handy. This tool has an articulated head, and is ideal for getting deep into the sides. The tool shown here is a Rolly Munro item, but I also have the Hamlet hollowing tools, one of which is straight and the other curved. All these tools are brilliant, and invaluable for jobs like this.

Introduce the hollowing-out tool and work on the left-hand side of the jar. Providing the tool is used correctly, the waste is soon removed, though this is where you'll get the benefit of having drilled out the blank beforehand. It's very important to have the toolrest positioned on the right, and the correct gap set on the cutter: a 0.50-0.25mm gap is more than enough; any more and it will be difficult to control the tool.

The vessel will soon fill up with shavings so you will have to keep stopping the lathe to clear them.

4 Shape up the outside with a 9mm gouge



5 Hollow out the container. Stop the lathe occasionally to clear the shavings

6 Use callipers to check the wall thickness

As you work down towards the bottom, keep checking the wall thickness with figure-of-eight callipers; these will give you a good indication of how much material you've got to work with.

Don't take wrist risks

Many people turn hollow forms with a very small entrance that's just big enough to fit a hollowing tool through. These items rely on the tool to give a good finish inside as it's obviously impossible to sand the interior. I have, however, seen vessels with a slightly larger entrance whose inside faces have been completely sanded, even though the hole is not big enough to put your hand in with ease. I've often wondered how the turners do this, and have been told by the people who make them that they push their hands through the hole and then turn the lathe on! This is very dangerous: if your hand gets caught in the hole while the lathe is rotating, it may be the end of your turning career: it'll twist your arm around and almost certainly break it. My advice is don't try it; it's never worth the risk. If you want the inside polished, turn bigger vessels. On these jars, only the entrance is sanded but then again, my arm is still in one piece!

Because of the natural oil properties in lignum vitae, the abrasives will clog up instantly, but if you persevere you will end up with a mirror-like finish. I generally finish off with '0000' wire wool, and if you use a soft cloth it will put a light sheen on the wood. To achieve an even better finish, apply a coat of sanding sealer and leave it to dry; this will only take a couple of minutes, then you can rub it back with '0000' wire wool before buffing to a sheen.

NEXT MONTH

In the February issue, Dave will turn the bottom and lid of his apothecary jars

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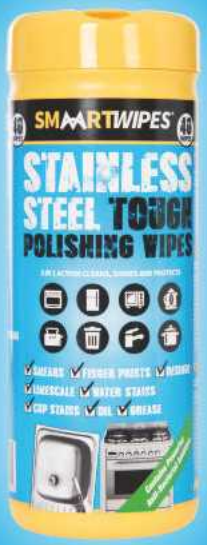

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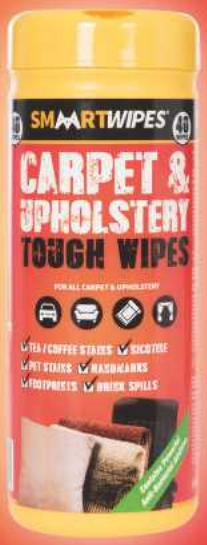

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REPAIRS & RESTORATION TIPS
BETTER THAN NEW?

In the second of this two-part series, **Peter Bishop** shares a number of examples of repairs that he's successfully carried out

Following on from the previous article, here are some examples of real renewal and restoration at work. Before you start making these types of repairs there are a few key questions to ask yourself. The first should be: "Is this worth doing?" This might be determined by the potential value of the piece or the cost associated with putting it right. It could also be some valid, sentimental reason. Having decided in the positive, the next question should be: "Is it possible?" You need to have a clear strategy in mind before you start. Picture the stages and processes you will undergo to achieve the desired result. You might have to do some research in jointing techniques, etc., but before you make that first cut, be sure you know where you are going!

Over time, if you get involved with restoration, you will develop your own techniques for dealing with different challenges. You might end up with a number of jigs and templates that, with some minor adjustment, will be used to sort a problem. The interesting thing is that through solving these issues, as a restorer, you'll find this skill transfers to new builds as well. By that I mean you'll know how to sort out the inevitable cock-ups you'll make along the way!

EXAMPLES OF REPAIRS

The following examples of repairs are taken from a number I've completed over recent years. I'll leave your imagination to fill in any gaps!

1 As you can see, the drawer side is worn away

2 Using the router and jig to chop off the damaged section

3 Replacement drawer sides being made

Drawer side bottoms

After decades of use the bottoms of drawer sides can wear away, as can the slides they run on. The latter should be fairly easy to replace, but what do you do about the sides? You need a router and a homemade jig (**photos 1-4**). Firstly, remove any old shrapnel that might have been used to help hold the bottom edge together.

You need to make a flat, parallel-sided jig with a raised edge for the router base to run against. Fit a straight cutter into your router and work out where it will cut in relation to your jig edge. Next, fix the jig on the drawer side. I usually screw it on with the heads recessed. You want to aim for a cut in line parallel to where the drawer side, bottom edge, should be. Width is not too important; your replacement piece can be cut to suit. Once ready, set the router cutter at a depth that just penetrates through the thickness of the drawer side. Slice off the waste material. You'll then need to run up some replacement strips and stick them on. Once in place, trim back, then the bottom should be sorted and ready for a few more decades of use.

4 Gluing these replacements onto the sides

5 Making the template

6 The replacement ends cut out on the bandsaw

Broken, shaped end

Photos 5-8 show part of a project to restore a bier, or a coffin carrier as it's otherwise known. These arms had been broken way back in the past so the challenge was to repair the one pair.

I made a full-size drawing by running round the profile of a complete arm. From this I could then work out the sizes of the repair pieces. After planing to thickness these were roughed out on the bandsaw and both adjoining edges made flat and true. A couple of Domino joints were then cut in both and the new section glued on. Final shaping followed and then the new bits were stained to match as best they could – job done.

7 The Domino joints once cut

8 Finishing off the two ends

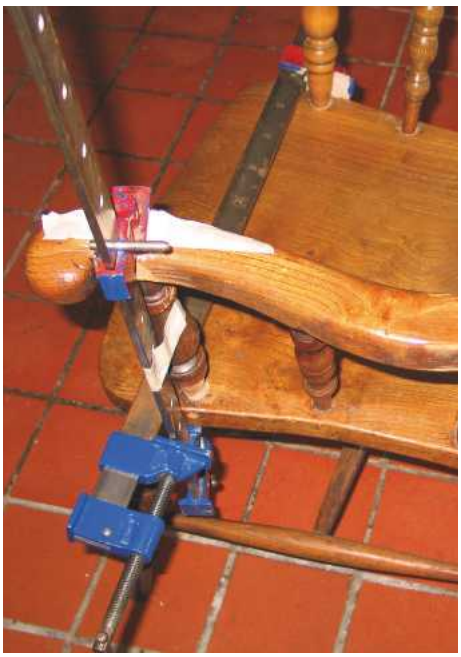
9 The arm and spindle were in a sorry old state

Wormy arm

This chair arm and spindle support were split off and affected by worm respectively (**photos 9-12**). The support was 'friable' on one end, so badly affected it simply crumbled. This was sorted by 'V' jointing in a new piece of beech and turning it to shape on the lathe, then on to the arm. I stuck the broken end back on, and once set I then cut away about half the thickness with a nice straight shoulder, well over the re-joined fracture. A new piece of oversize elm was then glued and grafted on. This was shaped to the original profile and the arm assembly re-fitted to the chair. Once stained it was a good match.

10 The new spindle end is turned

11 Some solid wood is grafted in



12 Getting it all back together

13 This chess board top had losses and its fair share of loose veneers

14 The loose edge pieces are glued back on

Chessboard edge

A simple problem found with loads of edge veneers is that over time, the old animal glue gives way and the edging therefore loosens. I was lucky with this one, as it was still in one piece (**photos 13-14**). A simple job. Clean the muck out from underneath, without breaking the strip, and stick it back on. Sometimes it's easier to take the whole strip off and clean the joining faces up properly. Hopefully the strip will be loose enough to come off in one piece. A hot iron carefully applied will soften the old glue, but even if it does break you can repair it.

Veneered edge repair

Cross-grain edging usually breaks up in smaller sections. Very often the original pieces have been lost, so the first job is to find some matching timber and cut strips of replacement pieces (**photos 15-19**). First, remove all the loose pieces. Some of these you might be able to salvage and use the original, longer pieces to fill the smaller losses. Clean the old glue off and cross-hatch the face below with, say, a craft knife. This will provide a key for the glue. Cut your fill-in pieces to fit nice and tightly. Apply some glue and hold each one in place with some tensioned masking tape. The replacement pieces should be slightly oversize so that, once in place, you can finish them back to match the original surface. Often there will be chips and 'dinks' taken out; these can be repaired using smaller pieces of original stuff if you have it.

15 Tidying up the ends where losses had occurred

16 Making the replacement veneers

17 Cutting glue keys into the original wood

18 Masking tape is ideal for holding things in place

19 The gaps are filled

Dead knots

Dead and loose knots can be a pain, especially if they are located in the middle of an otherwise pristine piece (**photos 20-22**). It's difficult to disguise them entirely unless you are staining the surface very dark. So why not make a feature of the repair? The easiest way to deal with them is to bore out a large, circular trench with a flat bit. You then turn a slightly tapered piece on the lathe to fit, glue it in and trim it off. You may find you have to do this more than once using overlapping infills.

20 A nasty dead knot hole

21 Making the recesses with a flat bit

22 The two infill discs in place

New knobs

Wooden drawer and door knobs often get broken or lost. You could simply replace with something else – perhaps a ready-made pine or beech one available at your local DIY store? It won't match but can be stained to look similar. Or change the lot to brass or china. Better to replace with contemporary ones if you can or make new to match (**photos 23-25**). Small knobs can be turned in a strip on the lathe; larger ones individually. Once finished they can be stained and polished before fitting. I often replace all the knobs on a piece of furniture; this way I have control of the pattern and quality of finish. I also like to then keep as many of the originals as I can, providing they are not broken. These I'll pass on with the piece, as spares, or keep for my use as a future replacement on another project.

23 The blanks ready to make the new knobs

24 The knobs are turned in pairs

25 A little stand holds the knobs for finishing

26 Some of the old 'shrapnel' once removed

Sabre leg

Sabre leg chairs are weak by design and often break. There are no lower rails to provide support and any type of stress can break the back or front ones. Here, in this example (**photos 26-30**), the front knuckle had been broken and repaired many times. The other adjoining top rails were fine so it was just a matter of sorting the single leg. The worst bugbear was all the old 'shrapnel' that had been used to hold it together in the past. If you don't get this out it will severely limit the tools you can use on the job. Once so relieved, I made a jig for my router to run against. This helped me to create two clean, flat trenches across the break. The repair was made in sequence. First one trench, filled and fixed, then the other, overlapping, to finish off. A final shaping and an extra corner block behind and the chair was ready for the next idiot to rock about on!

27 The knuckle is glued back together first

28 A purpose-made router template

29 The recess is cut for the new wood

30 The new knuckle before finishing

New splat

This old kitchen arm chair was missing its back splat entirely (**photos 31-34**). I took a replacement pattern off another one and made a flat replica of it. A large chunk of gash stock was then cut through to match the back curved shape. I took the shape from one of the simple slats. The new, elm splat was steamed in my mini steamer (**photo 32**). Once soft enough to mould it was then popped between the two profile pieces before being clamped up tight. When cool, with the shape fixed, it was then fitted and finished in the chair.

31 The flat splat and patterns

32 My simple steamer

33 The shaping jig

34 How the pieces appear out of the jig

Turned leg

Turned legs, usually in beech, tend to rot or get bad woodworm attacks that can finish them off. Turning a replacement is a simple job if you're lucky enough to have access to a lathe (**photos 35-37**). Turn you full length cylinder first – there will no doubt be some rail holes. Line the old leg up against your cylinder and establish the angles of any of the holes. Drill these now, using a bevel gauge, for example, to guide you. You can then turn the finished leg. Make a good fit to the top and trim to length once in place.

35 Eyeing up the shape of the leg

36 Bore the rail socket first

37 The turned leg

Upholstered chair arm

This very distressed arm and back leg joint were completely shot (**photos 38-41**). I thought I could salvage the arm as it was, with a special jointer, but the back leg needed some new stuff spliced in to keep the leg in one piece. While I worked on it, I clamped a specially shaped batten across the back of the joint. Once secure, I then chopped out the worst of the bad stuff and glued a new piece in place. Now, with most of the leg repaired, I could joint the arm back to it. I used one of my special, steel barrel jointers for this. Once that was fitted and tightened up, the holes were plugged. All surfaces were cleaned back to match the original and with a bit of stain and polish, it was finished.

38 More damaged joints

39 Making recesses for the new wood

Wormy upholstered chair rail

Repairing upholstered furniture presents some interesting challenges. Unless you can easily get at the defective area you'll have to fight with the covers, lining, fill and possibly springs as well. This rotten rail is a prime example (**photos 42-46**). If you're going to retain any of the old rail, give it a good dose of woodworm killer first. Let that dry

40 Gluing in the strengthening pieces

41 There's one of those handy barrel joints

off and then glue the break back together, making sure the main parts are lined up. Once you have something to work with, make a pattern for the back, inside face of the rail, then cut a strip of new, hard and strong wood to fit. Screw and glue that in place. Don't be shy with the screws and glue: you can kick this strengthened piece out so that it can be attached to the back leg for extra strength.

44 The strengthening piece

42 Treating the affected wood is the first step

43 Expanding polyurethane glue will fill the spaces

45 Fixing the extra piece in place

46 A few screws to make sure it stays put

Windsor chair back

Another worm-infested problem was a repair to a shaped Windsor chair back's middle rail (**photos 47-49**). I fiddled about getting the retaining and tightening sockets made for a steel barrel joint. These are great jointers for pulling gaps up tight. Once this chap was in place, I could crack on with covering over the repair. Plugs and specially made pieces were glued in and then shaped back to the rail profile. This done, all was stained in to match the original before being sealed and polished to finish off.

47 Another barrel joint

48 Expanding polyurethane glue used as a filler

49 The patchwork of repairs

Split bowl

Some years ago I was asked to make an apple wood bowl as a wedding present. The main problem was that we had no dry wood to work with. Fortunately I had plenty of lead time. The bowl was turned from some green wood and left to dry out, then it cracked (**photos 50-51**). This was expected. Over several weeks I measured the width of the crack until it stopped getting any larger. This, I hoped, meant that the wood had fully dried out. The edges of the crack were then cut flat and true on my bandsaw. To make a contrast, and try not to hide the defect, I decided that I'd fill the gap with some dry pearwood. A couple of pieces were cut and fitted just a little oversize. I glued these in and tightened a strap around the rim to hold everything in place. I couldn't remount the bowl to trim back the excess infill pieces because, obviously, the bowl had distorted when it dried. The finishing to size was done by hand, and the final result looked great.

Conclusion

There you have it: tips covering a wide range of repairs that you might come across any time in your workshop. The best repairs will be those that nobody notices or, if you wish, you've made a design feature of. Whichever, I wish you the best of luck in your endeavours.

50 The pearwood patch is glued into the recess

51 All finished and ready to go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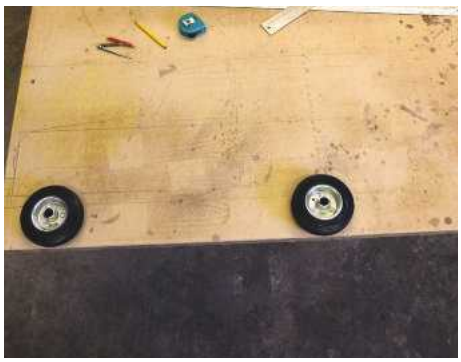
WEDDING BOX ON WHEELS

Undertaking another usual commission, **Peter Bishop** is tasked with making a wedding card and gift box based on the design of an original Series One Land Rover

Sometimes I get asked to make things that, frankly, are not interesting, are too awkward or not challenging enough to get me revved up at my time of life. Luckily, I have the luxury of being able to say "no" if I so wish, but I'm a bit of a softie really, so when a pal of mine asked me to knock up a model Land Rover for his daughter's wedding I had to say "yes". It was just the sort of project I could get my teeth into and something I'd not done before. I was asked months before the event but in the meantime I started to worry about how I was going to make something that looked vaguely like it was supposed to. I searched online for detailed plans showing the dimensions. The happy couple wanted an early 'Series One' lookalike rather than the later 'Defender' style Land Rover. All I could find were dimensions for the later model and, although similar, these were slightly off what I wanted. Eventually I found a decent line drawing, with no sizes, and decided I'd have to wing it.

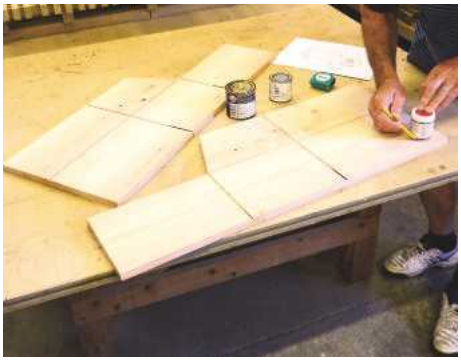
This was all before I'd even put saw to wood and I'd had a few months to mull it over, which didn't help. Should I make a canvas back, did it need to be painted, and what about the windows? Steering? No, definitely not! In the end I decided that as I work with wood, I'd keep it simple. A stylised version of a Series One, short wheel based Land Rover would be fine, just so long as it was recognisable. Anyway, the project was not going away and the wedding was a month away, so I thought I'd better get on with it.

Please note that although many of these



1 A detailed scale drawing on my worktop with the original 125mm wheels

2 The side panel pieces are glued up



3 Marking out the wheel arches and other fine details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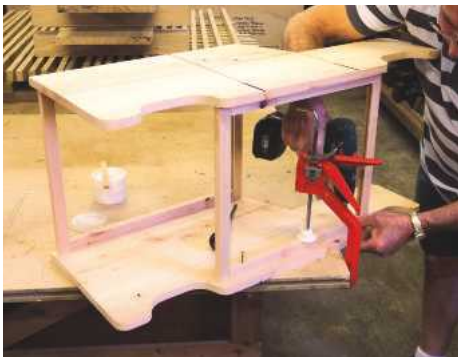
4 The two frames are made to join the sides together



5 Fixing the main panels together

6 The windscreen is fitted and fixed…

images show machines unguarded for clarity, you should ALWAYS ensure that when operating equipment, the appropriate guards are in place.

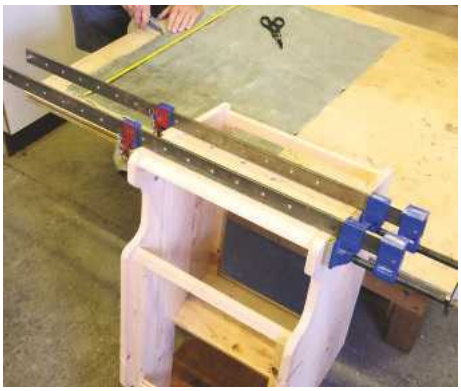
Drawings & making a model

The first job was scaling down from the drawings, to a size that I'd been given (**photo 1**). I needed to find suitable wheels so I searched the internet. Some 100mm diameter castor wheels looked OK until I placed a couple of paint pots of the same size on the drawing I'd made on my bench top – they were too small. Eventually I decided that 125mm diameter was right. I found some trolley wheels with centre bearings, and I then had to slightly adjust my drawing. Making scaled drawings is always a good idea. On my MDF bench worktop, detail can be adjusted and altered with a quick sand off. Now that I had a drawing, wood and wheels, it was time to get started.

I decided that making the model would be in stages building up from two matching sides (**photo 2**), a sub-frame, top-frame and so on. I had a batch of lighter weight hardwood already planed to 16mm, which proved to be ideal. The first job was to joint up wide pieces to make the two sides and also the top. When this had been done, I cut the main profile out for the two sides. While it was still a bit 'boxy', I cut some shallow grooves into the outside faces to provide a 'stylised' impression of doors and windows. Following this, I then cut the rounded corners, around the wheel arches etc., and sanded these smooth.

A simple sub-frame at the bottom and a roof frame at the top would hold the basic model together. With these two made, I fixed them on and started to get some idea as to the form and size of the vehicle. The windscreen was cut to size with some shallow trench outlines. It was then glued and fixed in place from the back, as with all the other panels, so that no screw heads were showing on the faces. The tailgate followed in a similar fashion. To make the front wheel arches (**photo 3**) that support the bonnet, I made two short ones, which were matched to the outside profile sections. To these the panels that determined their width were glued on in two sessions. Once ready they were cut, shaped and glued onto the main body of the model – it was now starting to look even more recognisable! Lower engine bay panels and the flat platforms for the axles were added after this.

The large panel I'd glued up for the roof was bevelled across the grain, cut to size and, with the underside cleaned up, fixed on from the inside. I'd leave the final shaping and cleaning up of the roof until the very end; I would then be happy to work with the model up-ended onto it. With the roof on I could now fit and fix the main bottom panel. The final objective was to have a sealed container into which cards could be 'posted' without dropping out, hence this panel. I matched a couple of small pieces of quarter-grain stuff to make the bonnet, which needed to stay flat. This was fitted to the

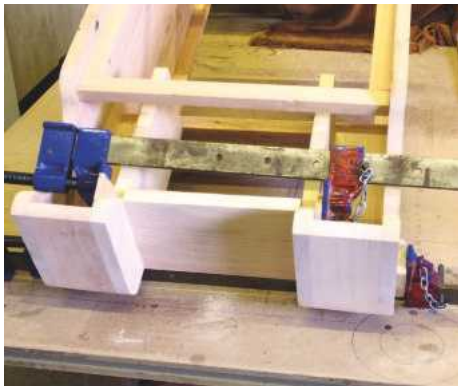


7 … as is the tailgate

8 The first stage of building up the front wheel arches/housing

9 Another section is added to the front wheel arch

10 Both the front shaped and finished wheel arches are attached to the main body

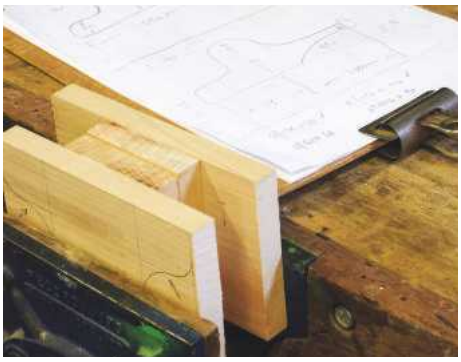


11 The front panel is fitted and fixed in place

12 The bottom, flat platforms are next

13 The roof's on and the bonnet's nearly there

14 The final set of wheels, still as castors, and some of the fittings



15 The first stage of making the axle assemblies is to strengthen them

slope of the windscreen and then cut to size (**photo 6**), shaped and sanded off. I could get a couple of screws up through the engine bay, before the axle panels were fitted, and these would help to pull the bonnet down tight. For good measure I plonked a 56lb weight – about 25.5kg – on top until the glue had cured.

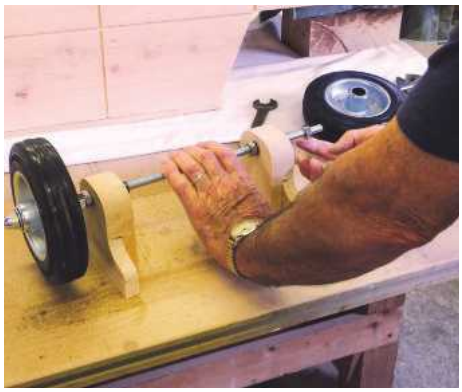
Wheels & axle assemblies

Getting the correct size wheels proved a bit of a headache. I'd made my scale drawing after I settled on 125mm. These were replacement castor wheels with pressed steel centres and rubber tyres (**photo 14**). There were a few issues relating to centre bore size but I knew I could sort those. The main problem arose when, later on, I presented these wheels to the model itself and discovered they were too small! After looking online, I found castor assemblies with 150mm diameter wheels. I ordered these blind not knowing for sure if I could take the wheels out and what the bore diameter was. When they arrived I took them apart and, with relief, found that I could simply bush out the centres and they'd fit.

The model was about finished and only required me to make the axle assemblies, fit them and the wheels, then I would be rolling. I gathered the bits and pieces round me, took some measurements and started cutting. Each axle assembly was going to be fitted onto the flat platforms underneath the model, front and back. I had to make some adjustments, end to end, to allow for the different depths I created during construction. With these worked out I did a rough drawing of the two pairs of assemblies. Having prepared the basic wood I drew out, in detail, the position of the axle and the outline of each pair. Because the grain was going to be 'short' across the axle shaft, I decided these sections needed to be strengthened (**photo 15**). Some slightly oversize pieces were glued on, with the grain going the other way, and once the glue had set, I could shape each pair.

The forward pair was designed so that they extended beyond the front panel to take the bumper. These I shaped, as best I could, to resemble the leaf spring suspension on a real vehicle. When I was happy, the basic axle supports were ready to take the completed assembly. With the cut to length threaded bar, wheels, washers and nuts to hand, I started to put the axles together. Onto the threaded bar went a domed nut on one end, a 'penny' washer, the sleeve, wheel, another washer, a couple of nuts to lock this lot in place, another nut, washer, the first of the wooden supports, another washer, a nut and so on. Once I'd worked my way through to the other end, the assembly was made but not finished. To complete the job, each loose assembly was placed on the lower platform and then the supports were positioned and the nuts tightened. When I was happy these were equally spaced, I drilled and countersunk the fixing holes and drove the screws home. With both axle assemblies fitted, I upended the whole vehicle and took a look. It was fine and rolled along quite smoothly.

16 The assemblies are roughly positioned to see if they fit

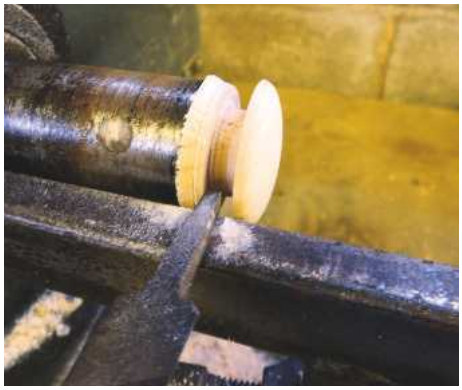


17 Assembling the axles begins

Bits & bobs

In the background I'd been busy sorting out the bits and bobs. I needed a couple of bulbous headlights for the front so glued up pieces of the gash wood to turn a cylinder from. It was a bit like making the domed tops of some knobs but slightly more delicate. Once sorted, these were stuck onto the front and held in place with a weight. I then added a grill. Hunting around I found a piece of old, rusty diamond-shaped mesh. When cleaned up, flattened and painted, it looked the part. The grill was fitted and held in place with tiny brass escutcheon nails (**photo**

18 After some adjustment the axle assemblies are fixed onto the bottom

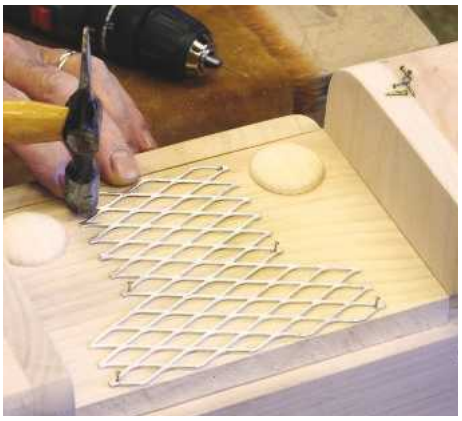


19 The headlight blisters are turned, and…

20 … stuck to the front panel where they are held in place by a weight

21 The canvas back flap is fixed on

22 The canvas is rolled up and tied to create the 'letter box' for cards, etc.



23 The front grill is pinned on

23). I also made up a black and white 'Land Rover' plate to fit in the top, centre diamond of the grill. Photocopied, reduced and built up with four layers of card it looked the business. On the back end I'd deliberately left a gap above the tailgate to form the opening to take the cards, etc. However, I did want this to look a bit 'agricultural' so got my dear lady to zip up the edges of a section of old canvas to fit in (**photo 21**). A hidden batten held the canvas in place and, to round it off, I'd managed to fix some old twine so that I could roll it up and tie it off – a proper job (**photo 22**).

I'd left those two leaf spring lookalikes protruding from the front so now it was time to make and fit the bumper (**photo 24**). A large piece of gash stock had the mortise sockets marked on it, and these I chopped out and fitted to the stubs. I sliced off the bumper from the waste, planed it, trimmed it to length, then rounded the ends. Once cleaned up it was stuck on and the job was done. The final task was to fix on the number plates I'd made earlier (**photo 25**). These I'd done in two shapes – squarish and oblongish – all I then had to do was choose which to use and stick them on.

Final clean up & check

Back on its wheels the model had a final clean up and check round before letting the family know it was ready, just in time! A few days later the Land Rover sat proudly in the marquee awaiting the wedding breakfast guests. It was then that I discovered the groom had a passion for old Land Rovers. To transport the newly married couple from the church to the reception marquee they were travelling in an old, open topped, short wheel based Land Rover and the bridesmaids were riding in another one. With such an enthusiast it was good to have him comment on how pleased he was with my little efforts. It apparently went down well on the day and I was assured there were a few "oohs" and "ahhs" etc., with talk of further commissions, which I'll duck out of!

24 The front bumper's nearly the last thing to do

25 Making up the number plates

26 The completed Land Rover letter box, in situ at the wedding

Punting past King's College
Photograph courtesy of
Visit England – Iain Lewis

THE PUNT
A POLE APART FROM OTHER RIVER CRAFT

John Greeves talks to **Andy Lonnen** about his enduring passion for punt building

The old or former Queen's punts, which were to be replaced

Andy Lonnen lives in a small village near Ely in Cambridgeshire and runs a one-man business maintaining and building punts for the various Cambridge Colleges. He started as an apprentice learning his craft in the mid '80s with Steve Lowings at a boatyard near Huntingdon. After a few years, Andy attended the International Boat Building Training Centre (located at Oulton Broad in Lowestoft) where he continued to develop a wide range of traditional boat building skills. He then worked briefly in the States helping to build a replica of the *Susan Constance* (a 40 ton brigantine) and one of the first ships, along with the *Godspeed* and the *Discovery* to colonise Virginia in 1606. Work and travel then took up a number of years, before Andy undertook a dual honours degree in Industrial Design, Technology and Teaching at Loughborough University. He spent over 15 years teaching full-time, before going part-time to rekindle his love of boat building and utilise his skills. Initially, he was maintaining and servicing the college boats and punts rather than building new ones. There was more than enough work to keep him busy, and his mentor Steve was still building new punts.

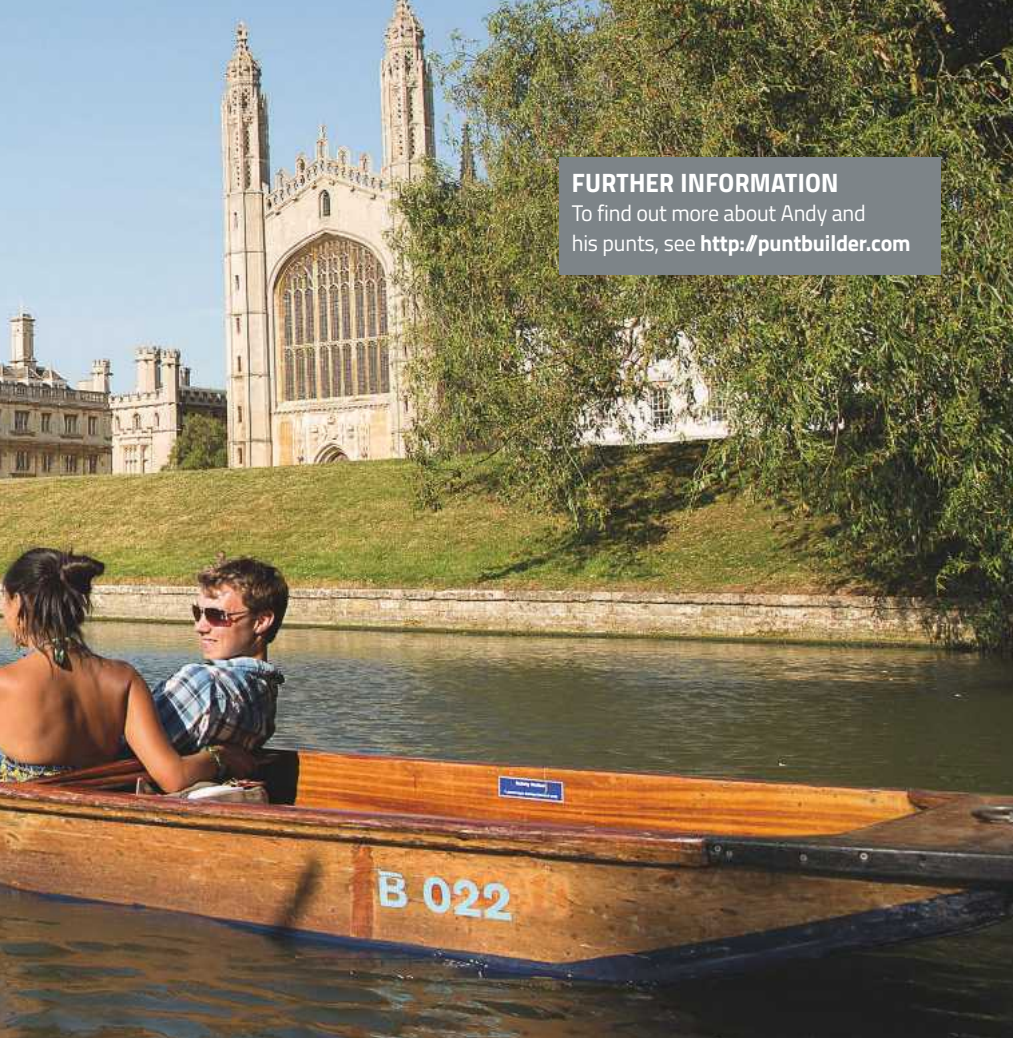
When Steve Lowings retired, Andy went into punt building full-time. I recently caught up with him when he was completing a commission and finishing off the remaining three punts for Queen's College, Cambridge.

The carthorse of the waterways

Andy tells me how, "The punt is probably one of the simplest boats you can imagine." He refers to them as the 'carthorses' of the waterways. They were used not only for wild fowling and fishing but as ideal craft, suited to shallow water and easily manoeuvrable, which could transport remarkable heavy loads of sedge, reed or peat. "When the fens flooded it would have been easy enough to push them through the reeds and shallow water," he says. The first punts were traditionally associated as small cargo boats for the river Thames. The use of pleasure punts came around 1860, but they were not introduced to Cambridge until 1903 with Maurice 'Jack' Scudamore's building of the first punt in Cambridge at Chesterton Boatyard during his boat-building apprenticeship. Jack's innovation introduced the pleasure punt to the Cambridge College Backs, a concept that has been enjoyed ever since. During the summer months, punters take to the water along the shallow river Cam following its course past many of the attractive college buildings, just as previous generations have done before.

Punt overview

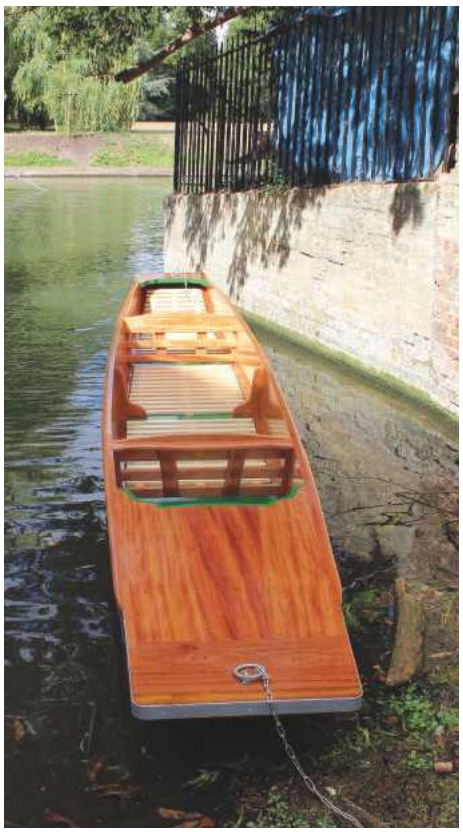
A river punt is a shallow draft boat with square ends and straight sides. Although size can vary, a traditional punt is about 24 × 3ft wide and the sides are around 18in deep. The chine, a strip of timber measuring 32-44mm, is attached to the lower sides and follows the profile of the boat, which provides a larger area to attach the bottom onto when it comes to construction. The bow and stern are square cut, with a long, gentle 'swim', which refers to the underside of the boat that slopes very gently up at the front and back. A till or deck is to be found at the stern of the boat. A series of treads (boards) run crossways from side to side along the length. Knees are placed intermittently along the structure to provide additional support. At both ends you've got a huff



FURTHER INFORMATION
To find out more about Andy and his punts, see **http://puntbuilder.com**

3 Sides set up in the jig with a sash cramp pulling the ends together

and cap, which is more like a bumper. Often a piece of metal work goes around that. Then you have a huff, a 254mm wide piece of timber that goes crossways at both ends. The design can be viewed as three sections: the two ends and the middle with the seat back sections mirroring one another. Straps are fixed behind the seat backs to hold them in place. The only 'joints' involved are used in the deck beams and they are dovetailed housing joints and those used for the treads are rebated in; a major part of the construction is glued and screwed.



Punt in water by Queen's College

1 Sides are pre-drilled ready to fit the chine

2 The sides are fitted around the jig before the ends are pulled to 610mm ready for fitting the huff

Materials

Andy uses a 25mm west African mahogany called 'Kyha' to build his punt. "It's much more flexible, although other mahoganies can be used." Different varieties have much denser grains and can end up by being quite brittle. The sides are made from a single plank of wood and the bottom is made from 12mm marine plywood.

Although Andy ensures a traditional design, he is continuing to use one developed by Steve Lowings that omits the use of vertical straps, which were once fitted every 305mm on the older punts between the knees. They would have helped to keep the sides straight, prevented bowing and strengthened the structure.

They have a downside, however, as Andy explains – due to this inflexibility and rigidity – and are more likely to "crack and break." Steve's modified design ensures more flexibility with the use of carefully selected pliable materials, which ultimately averts the problem without detracting from the overall strength of the structure, also creating a more 'elegant' line.

On the huff Andy might use light and darker oak, sometimes as a decorative feature, or he might use iroko. "The benefit of this wood is that it's more like teak and has a natural oil in it," he explains. Again, the till or deck is made from mahogany. A softwood could be used for the deck but is less durable or desirable.

Mahogany is used for the wooden seat backs and softwood for the duckboards, which are fitted inside. This mix of mahogany and 12mm marine board has the added advantage of creating a very strong structure and does away with any need to regularly caulk the craft while retaining the traditional feature or look of the punt. Finally,

4 Knees fitted to the forward deck to strengthen the join and improve the rigidity of the punt

5 The shell, now formed, can have the jig removed and still retain the shape. Ready for fitting out with seat backs, knees and deck

6 One of the central knees

7 Knees are set into the housing of the central tread

8 Both knees fitted in the seat back. The fitted seat back is also visible

9 Initial marking out of the deck beams, before cutting the dovetails

there are pine gratings or 'duck boards'.

Metal banding is fitted to the bottom runners and both ends. The punt is preserved and finished in marine varnish before being painted.

What are the challenges?

The main challenge, according to Andy, is the jig setup. "It's worth taking time setting up the jig in order to get and maintain the overall shape." The jig sits in the middle, allowing the sides, which are already cut and shaped with the chine glued on, to be fixed to it. Then it's a matter of pulling the ends in and putting the huff in place to achieve the basic shape.

The precise fit of joints is also critical to the build, as well as the order in which you proceed. For instance: "There's a piece of timber that goes across the punt just behind the seat, which is called a 'spool.' You have to put that in place before you do the seat backs because you're working into the narrower part of the punt." Time can also be saved roughing out the parts before the main build begins, with an average build taking between 85-90 hours.

Punt building

You start by marking out the sides with the pattern, then the first side is routed using the pattern as a guide. Next, the second side is cut using a circular saw, before the two are routed together to make a pair.

Next, the centre of the side is marked, from where all measuring/marking out is done for the treads. You can then move on to preparing the huff, which is a 254mm wide × 38mm thick piece of timber. A 125mm step is marked to get the fixing vertical and horizontal.

Now clearance holes can be marked for the chine at 229mm intervals along the 'flat' and 150mm around the swim. The chine is glued and screwed into place leaving a 1/8 overhang. The prepared sides can now be clamped to the jig before the ends are pulled in with a sash cramp to 610mm. The trestles can be set up in line with tread position, and this can then be levelled off, packing up on trestles to ensure the whole setup is level.

You need to check the sides to ensure they are in line with each other, then check each side that has a bevel. You may find that one side is curved unevenly due to the unpredictable nature of the timber. Levels can then be cut for the huff, again checking the angles are even on each side. Next, mark 125mm at the end of the huff down the side, then mark off the bevel on the underside before transferring to the top face. The step in the huff can then be cut, fitting it to the formed sides, before gluing and screwing into place.

A knee can then be fitted to the forward huff to increase strength and rigidity, using the same 38mm iroko for continuity of materials.

The construction can now be flipped over so the treads can be completed. The knee rebates can be routed out before fitting the centre tread. The position of the treads are designed to suit the size of plywood at either 100mm or 203mm, if using a full length sheet, although this can leave a lot of wasted plywood. A plywood infill can then be laminated up and fitted to the underside of the huff to secure the plywood bottom at either end. The treads are then ready to be glued and screwed into place.

The bottom edge of the sides and chine can be planed and levelled across using an electric plane, before moving on to a hand plane and belt sanding. This must be perfectly level to ensure good contact with the plywood bottom. The underside of the huff and whatever cannot be seen or got at can then be primed once the bottom has been fitted.

Fitting the bottom

The plywood is first marked then cut to shape before the centre of the treads are marked. You can then line up the ply sheet with the centre marks. Next are the plywood sections, which need to be glued and nailed, starting from the middle tread and working out to either end. Support the other end of the ply while nailing; this will prevent it 'picking up' the glue too soon. The nails on the tread should be staggered at around 75mm intervals and on the sides at a distance of around 125mm. On the tread, a nail length of 30mm should be used, 50mm on the sides and front fillet and 40mm into the chine. Galvanised wire nails should be staggered at around 100mm intervals. Next, excess glue can be removed and the construction flipped over, ideally before the glue sets, which will ensure some flex. Once finished, the frames can be removed. It is then levelled up again before starting the fitting out.

Fit seat backs first

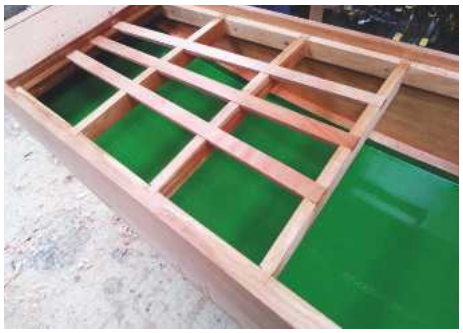
Diamonds are now chiselled in (Andy's insignia), then the other seat back rails are fitted. The radius is routed and sanded before gluing everything together. Next, the spool is cut, angled and fitted before finally fitting the seat back. The central knees can be completed at any time with a small shoulder of about 12mm onto the tread. Then, an angled 'undercut dovetail, into the tread, is cut around the chine. Andy uses Cuprinol to prime and undercoat the under deck before fitting. The whole of the punt will be treated with Cuprinol once building work is completed. There may be a slight colour change under the deck due to the difference in application time. End caps can also be added at any time, again, in a material to match the huff. Gunwales are then planed before fitting, with a bevel on the bottom only. A radius can be added on top of the gunwale once it's all fitted. Andy glues and screws the gunwales level with Fairline.

All metalwork goes on after the varnish. Metal banding is clamped in place to hold while bending and is 'persuaded' to bend with a club hammer. Andy anneals the metal locally to remove the spring and make the bending easier. Paint and varnish are applied under the deck as the whole deck beam assembly can be removed. The deck is then fitted before applying Arbomast GP (an oil-based sealant) to bed the wood, rather than gluing, which allows for movement. Deck pieces can then be screwed down and plugged.

Next, softwood runners are scarfed, glued and screwed into place, running the full length of the bottom. Finally, everything can be sanded ready for painting. Initially, Andy belt sands with 80 grit, then 120, before finishing with an orbital sander. The finish can be improved further by wetting the wood before the final sanding. Andy first applies a thin (50/50) coat of varnish, followed by 3-4 full coats. The floor, waterline and deck edge are then painted. The bottom is covered with 3-4 coats of a Bitumen-type paint (International 'Intertuff'), before 20mm steel strips are fitted to the runners. A steel banding 'bumper' is finally attached to the ends. Andy uses galvanised eye bolts at either end to enable the punt to be secured when on the water, with the holes for these being drilled before a finish is applied.

Those long sun-filled days

It is perhaps one thing to build a punt but it's another to learn the skill of punting. Andy has plenty of practice doing this, but describes the initial experience for beginners as 'challenging'. The danger of punting is not falling in, whereas its attraction lies in the fact it can become addictive and self-absorbing, as Mr Leslie, a Victorian punter, found out. He writes: "In the summer of 1871, two events happened to me of some importance. Namely, I got married, and bought a new punt. Of my wife I do not here promise to say anything, but the punt was such a beauty when new, and has been such a faithful and trustworthy friend..." Perhaps his wife was less enamoured by this bewitching rival. What she thought or said about this new liaison can only be left to the imagination...



10 Deck beams in place and area underneath painted ready for the deck to be fitted. The underside of the deck boards are also varnished before fitting

11 The deck or till is now complete

12 Awaiting delivery. Punt painted and varnished as described in text. Eye bolts and steel bumpers attached to the ends

13 New punt under Mathematical Bridge

14 Andy with the newly delivered punt

15 Punting in autumn
Photograph courtesy of **Visit England**

16 Punting to Grantchester
Photograph courtesy of **Visit England – Iain Lewis**

17 A selection of punts
Photograph courtesy of **Visit England – Iain Lewis**

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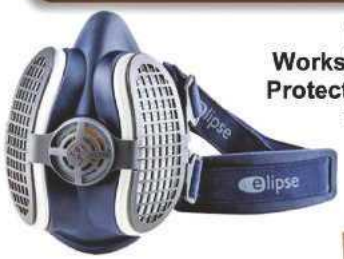

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AROUND THE HOUSE WITH PHIL DAVY

Sorry to mention the B word, but whatever your thoughts on Brexit and beyond, it seems that prices of many items are likely to rise. This was evident the other day when buying timber at my local builder's merchant. For PAR redwood this particular stockist usually has decent quality stuff, plus you can sift through the racks to choose clean, straight boards. When paying for the material, I spotted a sign on the counter pointing out timber prices would increase by 7-10% due to uncertainty with the pound and Brexit issues. Fair enough, but this trader had already increased their prices from September 2018! Checking when I got home, timber prices have actually risen significantly over the past few years or so. Most of us are probably careful when it comes to timber usage, but more than ever we need to be economical, maybe even consider using recycled wood where appropriate.

USEFUL KIT/PRODUCT
SMAART WIPES

How did we ever clean our hands before disposable wipes appeared? You could always rely on Swarfega, though that could be messy and you had to rinse it off under the tap. With so many chemicals often found in our workshops and garages, we need all the help we can get to stay clean. For woodworkers and DIYers, products such as polyurethane glue, sealant, varnish, finishing oil, expanding foam, not to mention grease, can be part of everyday life. Although hopefully safer to use these days, they can still be unpleasant on your skin. Disposable latex gloves can make handling such materials less of a problem, but it may not always be convenient to wear them for some tasks.

Smaart answer

The latest brand to hit the shelves is SmaartWipes, marketed by Toolstream. They seem to produce a wipe for every conceivable cleaning task in the workshop and around the home. Their Trade Cleaning Wipes contain an anti-bacterial additive plus aloe vera and come in tubs of either 80, 100 or 300. These can be used on wood, metal, painted or plastic surfaces, so are ideal for use on dirty tools as well as hands.

Stronger and larger, Universal Tough Wipes have similar properties and contain lanolin and vitamin E. These are available in packs of 30, 40 and 90. Probably of greater interest to most of us are the Universal Biodegradable Wipes, though these are only sold in tubs of 40. Also, the Heavy Duty Tough Abrasive Wipes (with both smooth and textured sides), sound especially effective for more stubborn stains.

More specialised cleaning products include Glass and Window Wipes, Carpet and Upholstery Wipes and Flushable Bathroom Wipes, even Barbecue Grill Wipes. I've tried two or three SmaartWipe samples and they certainly work well enough for cleaning up most workshop spillages. Give them a spin if you spot them in the shops.

SPECIFICATION

Typical price: Various
Web: www.smaart.com

Alberta Street, located in the Quiet Quarter, is extraordinary, with some of the most fantastic architecture I've ever seen...

OUT & ABOUT
BALTIC STATES

On a recent brief trip to the Baltic States of Latvia and Estonia, it was fascinating to take in some of the unique architecture for which the two capitals of Riga and Tallinn are famous. Although many buildings were lost in bombing raids during World War II, thankfully many have been expertly restored. These countries were once part of the USSR – they declared independence in 1991 – but fortunately there's still many historic structures to discover in both cities, some definitely with a Cold War feel about them...

Apparently, there were some 12,000 timber buildings in Riga at the outbreak of WW2. Not just from the 18th century, but some constructed as recently as the late 1930s. Although a modern, cosmopolitan city, Riga still has a wonderful jumble of wooden buildings dotted here and there. With around half the country covered in forest, it's no wonder so many houses were originally made from timber. What's remarkable is the number that have survived. Some dating back more than 200 years, it's great to see some of these historic structures have been given a new lease of life, a handful operating as bars or pubs.

Riga's Moscow Suburb, which has a rather faded air, is worth exploring. Here, most buildings have not been tidied up and could probably reveal many a secret. A fair few are still dwellings, while others appear neglected or even abandoned, sadly.

It was hard to resist buying a delightful contemporary mug in spalted birch...

Continuing the architectural theme, Riga is renown for having the greatest concentration of Art Nouveau buildings in the world. If you plan to visit this UNESCO-listed city, make sure you take a stroll down Alberta Street, located in the Quiet Quarter. It's extraordinary, with some of the most fantastic architecture I've ever seen...

Endless forests

Travelling by coach for some 300km between the two cities, once outside Riga pretty much all you see is endless forest. Mostly coniferous (pine and spruce), with plentiful temperate hardwoods such as birch, aspen and linden trees, both Latvia and Estonia also produce excellent quality, fast-growing oak. Unlike English oak (which is slow growing and costlier), in the Baltics trees tend to grow straighter as they struggle to reach the light.

Heading north to Tallinn, Estonia's smaller capital is most famous for its medieval Old Town, which is breathtaking. Arguably prettier than Riga, there are fewer chances of stumbling across the occasional wooden house, though I did find a handful, as can be seen opposite.

It wasn't all about the architecture, though. With Tallinn just across the Baltic Sea from Finland, it's not difficult to detect Scandinavian influences in their woodcraft designs. You could pick up oak kitchen utensils reasonably at several

Although a modern, cosmopolitan city, Riga still has a wonderful jumble of wooden buildings dotted here and there

markets. Although aimed principally at tourists, one particular shop had a huge selection of softwood and hardwood products on display. It was hard to resist buying a delightful contemporary mug in spalted birch, while quirky chopping boards made the most of the gorgeous quartersawn oak. I found a tiny shop selling unique steam-bent lampshades and household items, the craftsman having developed his own techniques in a nearby workshop.

Both Latvia and Estonia are among countries I'd love to return to one day. Destinations such as the Latvian Ethnographic Open Air Museum and Riga's Left Bank are high up the list for a summer trip. Although visiting in late October meant missing the crowds (particularly in Tallinn), it was bitterly cold. Gloves, scarf and headgear essential!

... while quirky chopping boards made the most of the gorgeous quartersawn oak

Arguably prettier than Riga, there are fewer chances of stumbling across the occasional wooden house, though I did find a handful

WINTER PROJECT
CHEST REVIVAL

Takes: Days!
Tools you'll need: Heat gun, sander, elbow grease...

HEIRLOOM RESTORATION

Phil Davy gives an old piece of furniture that had seen some serious family action a welcome facelift

This old drawer was hardly a thing of beauty

Sometimes you come across a piece of furniture that has been in the family for years and is looking rather battle-scarred. This chest of drawers was certainly never a piece of fine woodwork and had been covered in several layers of paint. In fact, I can remember my mum painting it when I was a nipper, along with the kitchen table, bathroom stool and virtually anything that moved!

With old furniture like this it can be difficult to assess how much work is required. When do you stop? I decided it was worth restoring, though not exactly taking an antique restorer's approach. Although the chest had been in the family for at least 60 years I would love to know its origins, however humble. It seems to have been made from low-grade timber, or perhaps it was an early case of wood recycling? Some drawer sides were virtually rough-sawn and looked more like packing crate material, while the backs were a mix of pine and elm and the rear thin ply.

There had been no attempt at matching grain or colour on the drawer fronts, giving the chest a certain rustic charm.

Who knows, maybe it had been built as a wartime utility item?

Sanding & bleaching

I'd actually started stripping the paint a few years ago and put the project on hold. That was before I'd stumbled across the wondrous heat gun. Without this tool, chemical stripper or sanding is the best way to proceed, working outdoors if at all possible.

Any sort of sanding task is pretty tedious, even with the most sophisticated power tools. If you have the luxury of a willing volunteer, this could be the time to get the family involved. It's not a bad idea to limit sanding to about five minutes per stint, then take a break. This is important if your hands start tingling from vibrations caused by the sander.

After working through the abrasive grades (80 to 240 grit), the carcass sides were still rather patchy. This meant having to bleach all the timber followed by staining to restore the colour. Rustin's bleach is supplied as two solutions: activator and the bleach itself (hydrogen peroxide). A couple of applications were needed on the carcass, followed by scrubbing off some crystal deposits that formed in one or two places. Depending on the final finish used, it's important to neutralise the bleach. Another light sanding and the chest was ready for staining. I used Rustin's Light Oak Wood Dye, though with hindsight a deeper colour may have been more effective.

Final finishing

Instead of an oil finish, which I tend to prefer for oak, I decided to use a satin polyurethane varnish. Rustin's is more viscous than some brands, so it's best to thin the first coat with white spirit. In fact, I failed to do this on the drawer fronts and regretted using the varnish straight from the tin. Warm weather doesn't help when brushing out a heavy finish, though it obviously speeds up drying. Still, thinning the varnish for the carcass made it much easier to brush on the first coat. A couple of coats gave a decent finish, though giving a less natural look than oil.

To complete the project I fitted elegant new oak knobs, supplied by Wooden Knobs & Handles (**www.wooden-knobs-handles.co.uk**). This Lancashire woodturning business produces a wide range of classic shapes in ash, oak, cherry, beech, maple, iroko, sapele, zebrano and walnut, as well as offering a bespoke service.

1 This old chest is in desperate need of some cosmetic surgery, though it's not actually too dilapidated

2 Remove existing handles to make it easier to work on the drawers. New knobs will be fitted after varnishing

3 Some drawers may be worse than others; although these fronts are dovetailed, backs are only nailed to sides

4 A heat gun used with shave hook or stripping knife is the fastest way to remove several layers of paint

5 Although a belt sander can be pretty aggressive it's a great tool for cleaning up wide, flat areas...

6 ... while a palm or detail sander is ideal for getting tight into corners; you'll still need to do some hand sanding, though

7 Glue and cramp any split drawer components or edges that are loose; sand once the glue has dried

8 Fill any cracks or blemishes with matching filler and sand back when dry; this may need tinting later

9 When sanded, brush on the activating solution and allow to dry, then apply the bleach in the same way

10 The bleach now needs to be neutralised with water; if stains persist, repeat the bleaching process

11 Lightly sand, then stain wood to restore the colour; to check this, test on the back of a drawer first

12 Brush on two coats of suitable satin or matt varnish, thinning the first one with white spirit if necessary

13 If some drawers are lighter than others, darken with coloured wax; screw new knobs to fronts to complete

14 It may not be an antique, but the finished chest is certainly more presentable than it was originally

HANDMADE MEMENTO

Rick Wheaton uses abalone shell to make this wooden key fob really stand out

I've made loads of these over the years. I keep any nice looking offcuts and can easily make a memento for those minor social occasions such as 'passing your test', 'getting engaged' (hi Megan), and 'winning the lottery'. The choice of shape and size is yours to make, but this might depend on your skill with bandsaw or scrollsaw, the wood available, and what mood you're in!

1 A heart shape covers a few bases, as here. I marked out the scrap of tulipwood, avoiding the circled fault, and drew the rough shapes in chalk. This piece is 140mm square × 24mm thick, ideal to make two hearts, four when each shape is cut to 12mm (with a panel saw in a vice, although this is too dangerous to do on the bandsaw)

2 The little bench-top bandsaw, however, is ideal for the main shaping, and your fob can now be flattened, ideally on a belt sander, and then through the grits – from 180 to 320

3 Small pieces like this are easy to sand if you duct tape the paper down to a flat surface

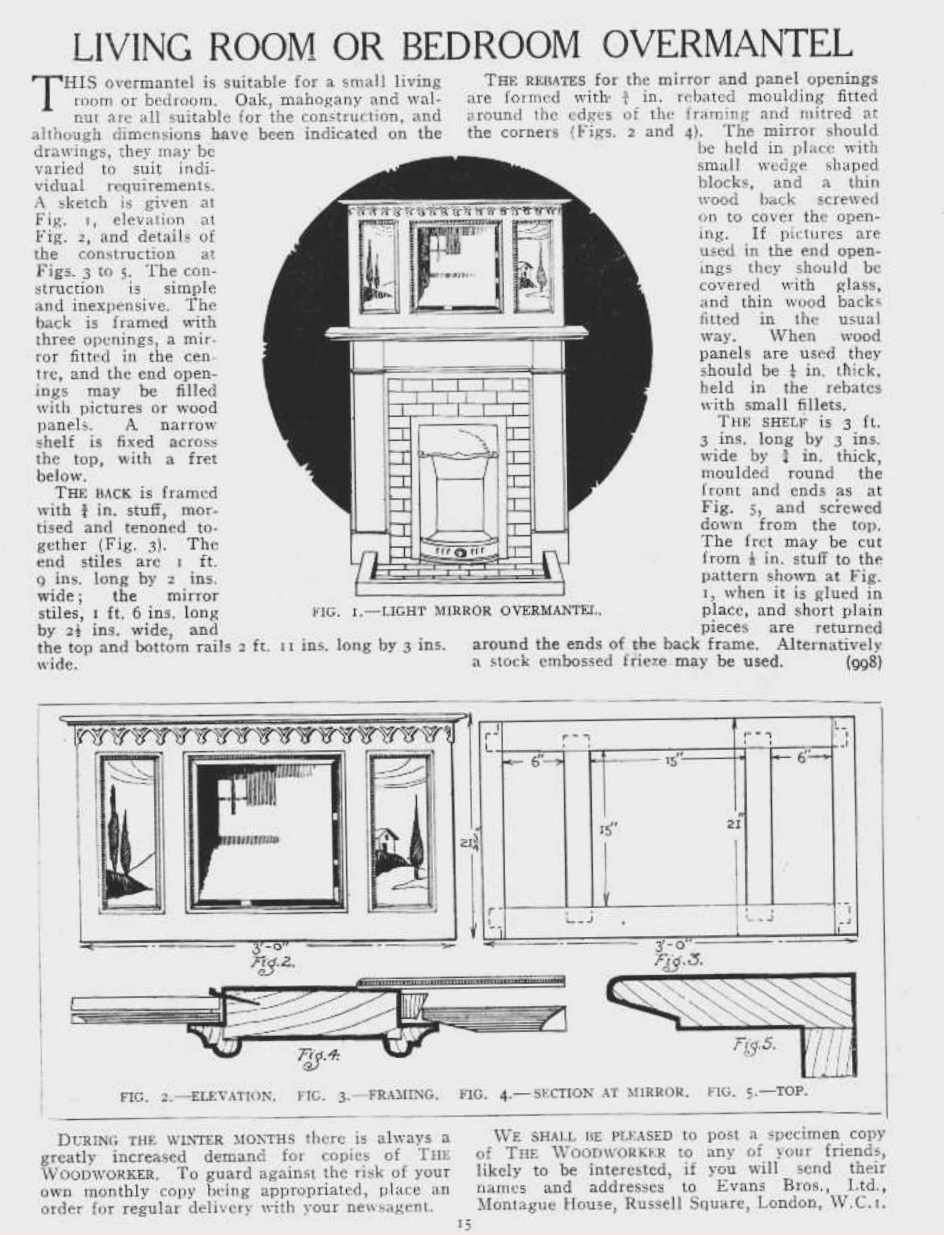
4 Now for the decoration, and again, the choice is yours: a circle of brass with someone's initials punched in, some acrylic paint in a favourite colour, even a piece of contrasting wood. My choice is often mother-of-pearl – it's expensive, but it's absolutely gorgeous, and a little goes an enormously long way. There's lots on the internet; I bought this abalone shell from Eaton's – **www.eatonseashells.co.uk** – and it will easily provide seven or eight 25mm discs. I paid £12 for the shell, which works out at less than £2 per disc. The same company also supply cheaper shells and small pieces, but I thought this abalone was perfect

6 This next bit is vital. A shallow hole in the fob needs to match a disc cut out of the shell, and this can be done with a Forstner bit and hole cutter. Note: a 29mm hole cutter gives you a 25mm disc; this happens to be a perfect fit for a 25mm Forstner bit. Luckily I have these two tools, although you might need to try a few combinations in some scrap first. Once you have this sorted, drill the shallow hole with the Forstner, and then cut the disc out of the shell. Adjust your pillar drill to its fastest speed, choose a flattish bit for the cut, and support the shell on a wad of old towelling. Cut slowly and steadily, using the gentlest pressure, and it should work fine, even if it feels like day one at a school for dentists!

6 Now drill a 10mm hole for the cord, and glue the disc in place. PVA works fine. Be generous – any tiny leakages onto the disc can be trimmed off later. Once the glue has set, complete any fine sanding, finish with some Danish oil, and add a loop of strong cord. The type shown here is black parachute cord, but a colour to 'pick up' your chosen decorative feature would be a nice touch

The rise & fall of the overmantel

Robin Gates trawls early issues of *The Woodworker* reflecting on a prominent feature of the home that's disappeared, and finds an example from January 1929 offering hope for its revival



LIVING ROOM OR BEDROOM OVERMANTEL

THIS overmantel is suitable for a small living room or bedroom. Oak, mahogany and walnut are all suitable for the construction, and although dimensions have been indicated on the drawings, they may be varied to suit individual requirements. A sketch is given at Fig. 1, elevation at Fig. 2, and details of the construction at Figs. 3 to 5. The construction is simple and inexpensive. The back is framed with three openings, a mirror fitted in the centre, and the end openings may be filled with pictures or wood panels. A narrow shelf is fixed across the top, with a fret below.

THE BACK is framed with ¾ in. stuff, mortised and tenoned together (Fig. 3). The end stiles are 1 ft. 9 ins. long by 2 ins. wide; the mirror stiles, 1 ft. 6 ins. long by 2½ ins. wide, and the top and bottom rails 2 ft. 11 ins. long by 3 ins. wide.

THE REBATES for the mirror and panel openings are formed with ¾ in. rebated moulding fitted around the edges of the framing and mitred at the corners (Figs. 2 and 4). The mirror should be held in place with small wedge shaped blocks, and a thin wood back screwed on to cover the opening. If pictures are used in the end openings they should be covered with glass, and thin wood backs fitted in the usual way. When wood panels are used they should be ¼ in. thick, held in the rebates with small fillets.

THE SHELF is 3 ft. 3 ins. long by 3 ins. wide by ¾ in. thick, moulded round the front and ends as at Fig. 5, and screwed down from the top. The fret may be cut from ¼ in. stuff to the pattern shown at Fig. 1, when it is glued in place, and short plain pieces are returned around the ends of the back frame. Alternatively a stock embossed frieze may be used. (998)

FIG. 1.—LIGHT MIRROR OVERMANTEL.

FIG. 2.—ELEVATION. FIG. 3.—FRAMING. FIG. 4.—SECTION AT MIRROR. FIG. 5.—TOP.

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15

Furniture designs published in *The Woodworker* over the last century offer a detailed insight of changes in domestic architecture, and one of the most striking is the rise and fall of the overmantel.

Back when every house was built with at least one fireplace, the overmantel was often the flagship for the joiner and woodcarver to display their skills, standing literally at the focal point of the room (the Latin focus means 'hearth').

By King Edward VII's reign, as *WW* was getting into its stride, the overmantel had reached a high point in its complexity with mirrors, glazed cabinets, shelves and niches designed to accommodate all the knick-knacks people loved to collect. There'd be a pipe rack too, from which the likes of a Sherlock Holmes might choose a favourite briar and, leaning on an elbow on the mantelpiece, pack its bowl with tobacco for a thoughtful puff by the dying embers of the fire.

An overmantel for the bedroom was featured in the very first issue of *WW* – October 1901 – and the proof that readers went on to make it is there in subsequent letters seeking further details of its construction. A second design published in June 1902 was intended for the drawing room, with accompanying remarks assuring the reader, "So simple is it, that any woodworker who can use a bow-saw and a plane and can make a joint, should be able to make a very satisfactory job of it, and, altogether, a very cheap one." The recommended timbers were pine or whitewood if it was to be painted, and American walnut or mahogany if to be polished.

Numerous overmantel designs followed in the years leading up to Word War I, with a large and handsome example of April 1914, for example, covering eight of the magazine's 44 pages, including a design supplement giving details of construction and carving. It's a feature of the home which only grew in significance when a popular song of the day urged those left tending the hearth while others were fighting at the front, to "Keep the home-fires burning, while your hearts are yearning."

A classic design returns

In the years after Word War II, gas, electricity and oil gradually replaced coal and wood for domestic heating, so that the fireplace all but disappeared from new homes and, of course, the overmantel went with it. My own childhood home built in the late-1950s was among the last in our road to have fireplaces, with later builds boasting the convenience and comfort of gas-fired central heating with radiators. I must say that I'm grateful for the cosy winter evenings spent sitting by the glowing coals, toasting fork in hand, but they're to be weighed against those damp windless days when the fire wouldn't draw and the room filled with smoke, and we would've gladly swapped places with those sitting at a constant 20°C.

Today the situation seems at least partially reversed, with house hunters combing the agents' particulars for the tell-tale of a proper chimney stack. The plasterboard blocking old fireplaces is being ripped out and flues swept, steel liners run up inside the old masonry, and solid fuel stoves installed left, right and centre. That said, increasing concern for particulate atmospheric pollution means that the rules governing what can be burned are changing, and the longer term role of the fireplace may be to augment other heating systems – using solar energy, for example – rather than to replace them.

Even so, could the overmantel be set for a return? If so, then I suspect its 21st century embodiment is more likely to be the routed MDF frame for a monster LCD TV rather than a virtuoso display of carved balusters and balustrades, brackets, columns, and finials. But you never know.

In the hope that this reflection does whet someone's appetite for the real thing, here's an elegant design from the January 1929 issue of *WW* succinctly outlined in a single page. It's essentially a frame of three apertures in 20mm timber assembled by mortise & tenon joints, haunched at the corners, and with the mirror rebates made by the applied mouldings. The shelf is simply screwed to the top, with a fretwork beneath of cusp and trefoil seeming to echo the tracery of a church window.

‘TIGER LOAF’ BED

Cameron Sidgwick’s rustic wooden bed frame and matching table can be easily constructed using reclaimed timber

Completed bed frame and matching bedside table with steel hairpin legs, made using an offcut of the bottom oak beam

As a professional carpenter, I have to admit to having a deep interest in Scandinavian interior décor and antique-style barn conversions. With this in mind, I came up with the idea of building my own bed using reclaimed timber. This was a perfect opportunity for me to explore an avenue I’ve wanted to visit for a long time: an ecological, self-sustainable area of building and carpentry.

Timber choice & cutting

I started off by taking the wood in its rawest form: stripped from the tree and ready to upcycle. Choosing the timber is an important process, so selecting the correct shape and style for each job is crucial. It’s an exciting start to the task as even in its untouched form, you can envision its finish evolving. The base of the bed is made up from 8×2 joists, plus an oak beam. The bed’s dimensions are bespoke and custom-made to each person’s preference, but in this case, I made the frame to fit a king size mattress (1,600 × 2,000mm). The first job was to cut all four beams to size, squaring off the edges so that they would match up perfectly when the bed was constructed.

Sanding

The next job was to sand all the lengths of timber. I began with a harsher gradient of 60 grit, which would whip off all the loose, jagged edges. This selection of timber was rough due to its age, so it required a firm sand in order to achieve a high quality finish. I then moved onto a higher gradient of 120 grit abrasive, which smoothed off the finish perfectly, ensuring I covered the entire length with extra care on the bark and knot areas. Once all of the sanding was completed, I vacuumed out any loose sawdust sitting in the grooves and grain of the timber. Only when I could cast my hand across all of the beams smoothly did I declare sanding complete.

Waxing

Once everything was sanded down, I applied generous amounts of Briwax (Antique Pine Wax) to the timber. With deep circling motions, I smeared the wax into the beam, ensuring that every last nook and cranny was filled, gradually

1 Loading the timber onto the truck

2 Cutting the first lengths to size

3 All lengths cut to size ready for the next step

4 Oak beam in the sanding process

5 Timbers sanded and stacked ready for the next step

6 Waxing the 8×2 sanded joists (bed sides)

enriching the wood with every stroke. It takes around 10 minutes for one standard coat to dry, and once ready, I wiped off any excess with a dry cloth and began applying the second coat. Depending on the smoothness and finished shade required, you can apply another coat but two worked just fine for me. The wax really moulds everything together, gripping the bark and soaking a deep layer into the beam. Once dry again, I gave it a final gloss over, leaving an end product which amplified a rich wooden glow.

Assembly

The next stage was to assemble the bed frame. I chose to construct this particular bed in the customer's house, so it remaied stationed in a

7 8×2 joists after receiving a second coat of wax

8 All beams waxed and drying

9 Bed frame constructed: four beams bolted together

sturdy structure. Firstly, I joined a 4×2 strut alongside the left and right frames, before piloting and screwing the front and back beams, connecting the four sides firmly together. For this, I chose to use 100mm black finish Timberlok index screws. I love the rustic look of these bolt screws, as well as the tight hold they provide. Three screws centred per side gave the frame a solid hold, and once the frame was bolted together, I installed a middle strut to support the slats, which ensured there would be no movement once the mattress was in place. Calculating my spaces, I then installed the bed slats, making use of 4×1 prepared timber, screwing into all three struts. Now the frame was one complete structure, it could be positioned in its new home and felt as solid as a rock.

Bedside table

As I had some oak left over from the bottom bed frame beam, I decided to make a matching bedside table/bench. It was too beautiful not to use, so this project therefore involved zero wastage. I then fitted the table/bench with rustic, strong, exposed steel legs, which can be purchased online. The table complements the bed perfectly.

Conclusion

Thrilled to have my first project under my belt, it has inspired me to create more and I am set to unveil a business – RUSTIC – a bespoke furniture making company specialising in using reclaimed timber. Focusing mainly on building unique, rustic-yet-modern bed frames, the aim is to fully design these so they fit within a stylish home. I have to say that upcycling and reclaiming all of the materials is as important to me as the finish.

FURTHER INFORMATION

If you are interested in any of the products shown in this article, or have any ideas of your own, please do get in touch:
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10 Bed in position and slats installed, with middle strut provided

11 In position, ready for use

12 The bedside table/bench, which is made using an offcut from the bed

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RING LEADER

Based on a project he made many years ago, **Les Thorne**'s insert ring bowl design in ash and bubinga is open to individual interpretation

Trying to find something different in the world of woodturning is no easy task, especially when it comes to the humble bowl, so every now and then it's really good to try and combine some techniques and see where you end up – a concept or prototype bowl. As many of you will know, I do many demonstrations throughout the year and this project came about following a request from the events organiser at a local club who asked if I would turn something that included more than one species of timber. The idea was to feature the bowl as the members' project for the club competition the coming month.

This is similar to a project I turned many years ago, the only difference being that I didn't want to add any colour to this one whereas the original was blowtorched and painted. I really enjoy doing this type of work in front of an audience because people will often come up with other ideas to enhance the project – a bit like a think tank. The technique of inserting the ring could also be used in different projects, such as boxes and hollow forms, for example. I look forward to seeing the pieces the members come up with, and hopefully everyone will add their personal twist to the design.

1 The choice of wood is always important, especially when you are looking for something to stand out. The piece of English ash used here is a little splayed for my personal taste but should work well with the contrasting bubinga

2 If you use a screw chuck on a blank this size, like I am doing here, it's an advantage to use the larger jaws on your chuck. This gives a much stronger fixing as it stops excessive sideways movement

3 I'm using air-dried 100mm thick ash, so I've tested the moisture content to ensure the timber will be OK to turn to a finish in one go. Anything below 20% should mean that the bowl will be less prone to splitting, but may warp a little

4 The shavings shown here are the kind you should be getting if the tool is sharp and presented properly. If the tool is presented horizontally, keeping the handle low makes the long-grind bowl gouge cut rather than scrape

5 The blank is made round with a push cut working from left to right. This uses the other side of the gouge than the push cut and the control comes from my hand sliding on the toolrest

6 Don't you just love timber! I discovered these splits in the end-grain on the ash, but the majority of them should be removed in the shaping of the blank

7 I tend to use a spigot rather than a recess for holding the bowl when hollowing. I use a pair of dividers to accurately mark the diameter of the C jaws on my Axminster chuck

8 Here we go – I love making shavings like these. The curved stainless steel toolrest makes life much easier when doing the sweeping cut around the outside of the bowl

9 Getting the spigot correct is important to ensure you get the most effective grip on the bowl. The flat to the side of the spigot helps with strength and accuracy as it locates on top of the jaws and the angle on the dovetail matches those I'm using here

10 After removing the bulk of the material, I need to do some finer finishing cuts. My preferred tool to use is the 6mm bowl gouge. I grind this in a more traditional shape with the heel ground away

11 A small shallow cut of around 1mm in depth is taken around the shape. Grinding the heel of the tool away means you are decreasing the amount of bevel that comes into contact with the surface of the wood; this will make the cut easier and the finish better

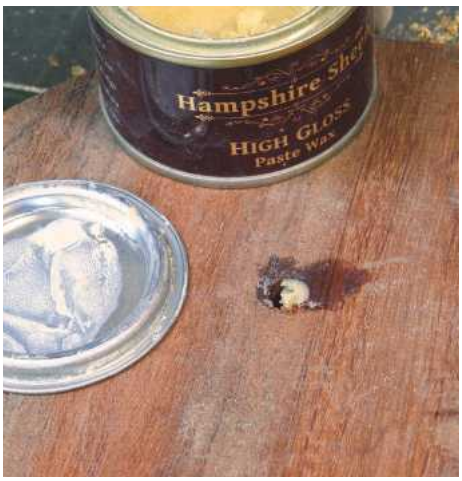
12 To texture or not to texture is often a dilemma that I face in my creative work, but the splits in the side have pretty much made my mind up. My go-to tool for texturing is the mini industrial Arbortech

13 The texture is cleaned up with a brass brush. Ensure to use a real brass brush as opposed to one of the cheap ones that are made of steel and coloured brass, as these will scratch the work badly

14 When the bowl is remounted in the chuck you can clean the face of the blank; this surface is now textured in the same way except that you can now support the Arbortech on the toolrest, which makes life a little easier

15 The edge of the bowl can end up being really sharp, so it's best to round over the rim. This could be done with a tool but, if it works, using some coarse abrasive is not considered cheating

16 The bowl can now be partly hollowed out. Work from the larger to the smaller diameter wherever possible so you are going with the grain. You then need to make a groove using the 10mm round skew chisel



17 The piece of bubinga is now mounted on a screw chuck. Hard, dense wood is sometimes difficult to get on a screw, so it's best to lubricate the hole with some paste wax

18 Once the bubinga is made round you need to turn it to fit the groove in the bowl. Ensure to take really small cuts at this stage; removing too much timber will require you to use a new piece of wood

19 Test fit regularly; you're looking for a tight fit so you can finish the ring once it's jammed into the bowl. This isn't an easy job to get right, so take your time and give yourself every chance to do it perfectly

20 You need to do as much of the shaping of the ring while it's attached to the main piece. I'm using a spindle gouge with a pull cutting technique, which lightly scrapes the curve on the underside of the ring

21 Attaching masking tape to the face will stop the ring breaking when parting off. There's a couple of patches of very short-grain in this ring and it can break very easily

22 The rest of the bowl can now be hollowed. I like to add a slight undercut using the 6mm bowl gouge; this is a great cut to learn and is achieved by pointing the bevel of the tool in the direction of the curve you want to make

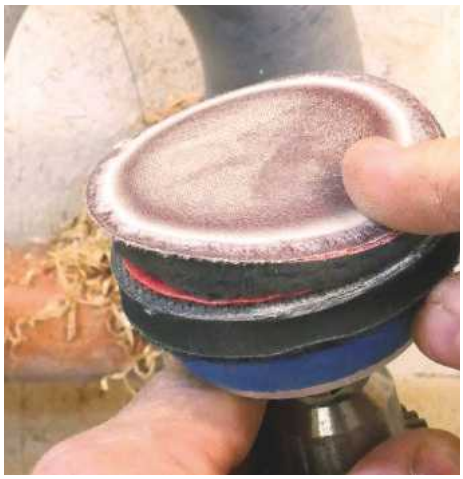
23 The centre part of the bowl can be made by working the tool from the centre outwards. Do not try this cut up the side walls of the bowl as you are likely to experience a dig-in

24 For this step I swapped to the 13mm bowl gouge as the smaller tool doesn't have the strength to work this far off the toolrest without vibration occurring

25 After being very careful I still ended up with a ring that was a little loose, so I therefore had to use some double-sided tape to hold the ring in place while I finished turning it

26 I normally like to cut rather than scrape the wood, but the ring is only held in lightly, so a fine scrape with the gouge will put less pressure on the fixing

27 There are times when the good old finger callipers are perfect. Here I'm trying to get a nice even flow around the inside of the bowl with the bottom of the bowl slightly thinner than the rim



28 No one likes sanding, so I try to be as effective as possible. I find that power sanding bowls is the most effective way of getting a great finish quickly. My 75mm Simon Hope sanding pad has a soft interface, which will fit the interior curve perfectly

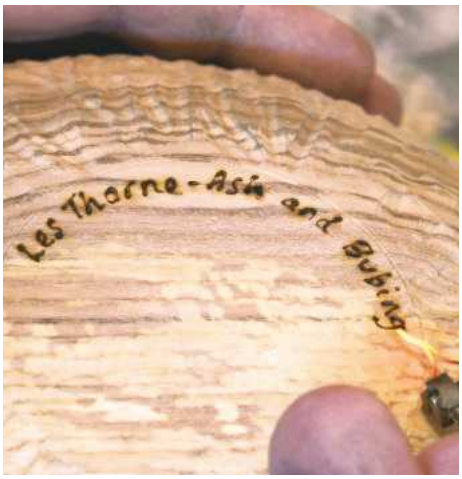
29 When hand sanding the inside of the bowl, I present the abrasive between 6 and 9 o'clock, but when power sanding, the drill goes in at 3 o'clock; this is the best way to keep the drill under control

30 I noticed that the ring had a split in it, but this shouldn't be a problem as it's going to be held firmly inside the rim of the bowl. I decided, however, to run a small amount of thin CA adhesive as a precaution

31 Doing a lot of sanding on the ring once it's inserted into the rim could lead to the dust discolouring the ash, so do the minimum at this stage. The ring can then be polished using a small amount of paste wax

32 The spalted ash was too porous to work on the vacuum chuck, so to remove the spigot I had to go 'old school' by trapping the piece between a wooden disc and a live centre mounted in the tailstock

33 As always, the last bit needs to be completed by hand. Sand either by hand or carefully with a drill-mounted arbor. It's important to finish this as well as the rest of the bowl



34 It's always nice to sign a piece when you're really happy with it. The pyrography machine will burn a permanent signature onto the base. It's worth practising this technique because if you get it wrong, it's not easy to get rid of with sanding

35 My favourite bit: the first application of a finish like this Danish oil really makes the piece pop. I give the bowl three coats of oil with a light cut back between each using a fine abrasive

36 The completed insert ring bowl in ash and bubinga should look something like this

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ME AND MY WORKSHOP

Matt Morgan

Matt Morgan outside his Devon workshop

We find out more about Holiday Lodge Developer **Matt Morgan**'s workshop, which is situated on a farm in Devon

1. What is it – and where is it?
Palstone Park is my workshop. A Devon farm that's been in my family for generations.

2. What's the best thing about it?
The hundreds of trees – most of which I planted 30 years ago – and the wonderful location on the southern fringe of Dartmoor.

3. And what's the worst?
It's open to the weather and I worry about that too much.

4. How important is it to you?
Vital, it's where I live and work.

5. What do you make in it?
The cedar lodges are all pre-made, but my love is the landscaping. I make all the wooden decks, rails, planters, fences and gates.

6. What is your favourite workshop tip?
Whatever the weather, hang on for an hour and it'll change for the better.

7. What's your best piece of kit?
Easy, my chopsaw.

8. If your workshop caught fire, what one thing would you rescue?
It could only catch fire if we had a five year drought!

9. What's your biggest workshop mistake?
We use a fabulous hardwood decking: non-slip, mould-resistant and enormously expensive. Once I measured carelessly and ordered 52 lengths too many.

10. What's the nicest thing you've ever made?
An angled, shady deck with lovely views of the moor. It cantilevers out over a stream and if I had the time I could sit there all day watching the kingfishers.

11. And what's the worst?
I once spent days making an impressive pair of gates, and chiselled out for the hinges on the wrong side.

12. What's the best lesson you've learned?
Measure carefully, and then measure again even more carefully.

13. If you won the lottery, what would you buy for your workshop?
Not technically for my workshop, but a shiny new Land Rover with every known attachment, including a generator. I'd go for the hybrid version, if only they made one!

NEXT MONTH
In the next issue, we stay in the West Country as we visit the workshop of Cornwall-based designer and maker, Stuart Lamble. We'd love to hear about your workshops too, so do feel free to send in a photo of your beloved workspace, and please answer the same questions as shown here – just email t**egan.foley@mytimemedia.com**

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The Woodworker & Good Woodworking
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How do you make your furniture designs pleasing to the eye? The best place to start is to look to nature, as Peter Bishop shows

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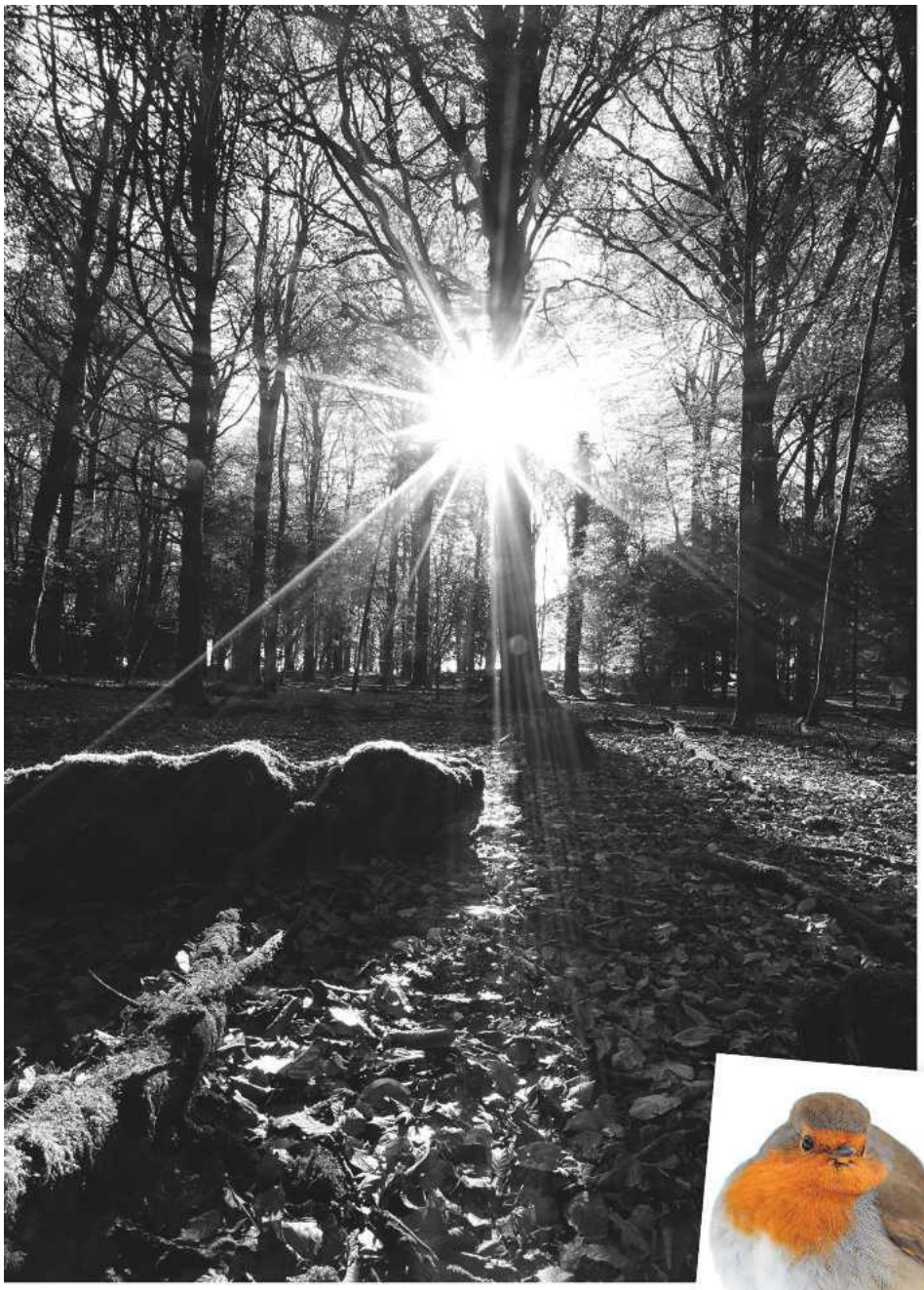

GREAT BALLS OF FLUFF!

(The cute factor)

Photographs © **Graham Karslake**

I looked around a gallery of makers' work, all of it very well produced, and some of it spectacular. Thinking to do a bit of market research, I asked the man behind the till about trade. What sells best? He barely hesitated, and didn't have to move. He stretched his arm out sideways and tapped a glass cabinet. Perched on the top shelf were little wooden birds. They were well-made little wooden birds – I could see that at a glance – but my heart sank.

It has sunk before. One of the most miserable weekends of my life (I mean it) was my first and only attempt at a craft fair. I don't want to talk about it: I don't want to think about it. In between bouts of loneliness, depression and desolation, I assessed the other stalls. Lots of stuff that I'd never want. Bad stuff that I didn't understand. And some good stuff that was quite inspiring.

One stall was manned by photographer Graham Karslake. Another stall belonged to another photographer who captured much the same range of subjects in much the same way, but no: not the same at all. The other stall was dull and lacklustre. It would be hard (for me) to say exactly why, but in my mind there was no dispute. There was a sharpness, not just of focus, but of moment; and an intensity, an integrity in Graham's work that stood apart from the other, and a long way above it.

But then, like a wart on a nose, what was this? Could I believe it? In the front of his stall, centre stage, 10 times life-size and 10 times as obnoxious, an over-stuffed, over-fluffed robin!

Having told Graham that I liked his work a lot, and us seeming to get on well, I felt emboldened to ask, tipping my head towards the cuckoo: But what is that doing there? It sells, he said, with an easy smile. It sells. Of course he'd rather not. But hey. We had a chat about prostitution. We largely agreed. The difference between us, I suppose, was that he was doing something about it. He was satisfying his customers. I didn't have any.

Nasty, vicious & mean

That weekend I began to hate robins. I still do. Well, hate is a bit strong. I view them with disdain. I've seen their dark side, how they really are, and how they behave when they're not posing for a Christmas card. I put out food for the birds. The robin is right there and takes its fill. Fair enough, that's what the food is for, but what then? Does it go away and sit down while other birds take their share? Does it tweet? No. The robin struts and jerks, flaps and stabs to prevent anyone else having what it doesn't want itself! An aerial dog-in-a-manger! Robins are nasty, vicious birds. They'll kill a contender if they have to. Why do people like them? Why do they buy them?

Because, as they hoe their onions, they mistake the opportunistic sharp-as-a-knife hunter twitching its laser vision here and there seeking lunch, for a friendly neighbour popping by for a chat. And (here's the sad bit) because the robin is fluffy, and has an orange bib. If the robin were a matt black lizard it wouldn't be as popular. This is nothing to do with the robin. It is to do with the buyers-of-robins. It is their desire for something sweet and cuddly that drives the market, unperturbed by the fact that the robin is anything but.

The Karslake Robin is the epitome of sweet and cuddly. And it has intelligence. It looks at you querulously and a little cheekily. You can almost hear it thinking. Obesely fluffy, it doesn't present a threat. It is an excellent portrayal of a robin that doesn't exist. If you have to photograph a robin, this must be the way to do it. Graham knows that he can't always do what he wants; but when he does what he has to do, he does it equally well.

All weekend, I sold one piece of my work. A small piece. It didn't cover the diesel, let alone the fee, to say nothing of the misery; being trapped in a deeply wrong place, with no means of escape. To whom did I sell it? Or rather; who came up of his own accord and bought it? Yes. Correct.

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