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WELCOME

Life – and furniture-making – doesn't always take you where you think it will. Fledgling furniture maker Antony Elliot of Elliot Design shares how some happy accidents led to some of his most stylish design choices in this issue. A template-routing incident led him to add an unexpected bevel to the leg of a stool for his little boy Jed, which he ended up liking much more than the original design, while an offcut of a resin-and-wood coat hook which he fished out of the bin – itself the happy result of a failing experiment – ended up catching the eye of TV presenter and former motorcycle racer Guy Martin's British-focused online shop.

Not all accidents end up quite as happy as Antony's, but they all help to make us who we are. Caroline Pattenden shares how failures can become part of business success; Rachel Roberts looks at how customer feedback – good and bad – can help build up your enterprise, and Geoffrey Laycock gives you the lowdown on all the first aid kit you need for your workspace.

We also meet Ronan Morrison, who gave up a career as a video producer to make furniture designed to enhance mental health; Chris O'Dell, whose unusual pieces include a wall-hung bar made from a grand piano, which you may have read about in *F&C* 302, and Justin Ephraim, who makes and sells live-edge pieces from wood salvaged from freshwater lakes by the Panama Canal.

There are plenty of exciting projects to try out: Israel Martin has created a curved front whisky wall cabinet, Thomas Eddolls has made a credence table for a local church and Jim Bennett has built a writing table for a friend who is a poet. Just go for it, and don't worry if you fail – it will only make you better than ever before.

'The adventure that results in the quiet satisfaction of making objects that will endure and serve their purpose well, bringing pleasures to those who choose to live with them.'

JAMES KRENOV, THE FINE ART OF CABINETMAKING

CONTENTS

F&C ISSUE 305

Furniture & Cabinetmaking magazine (ISSN 1365-4292) is published every eight weeks by Guild of Master Craftsman Publications Ltd, 86 High Street, Lewes, East Sussex BN7 1XN T: +44 (0) 1273 477374

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gmcsubscriptions.com

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



1 WELCOME

Discover what's in store in the latest issue

4 CURVED FRONT WHISKY WALL CABINET

Israel Martin describes how he made this cabinet from Engelmann spruce and ripple sycamore

10 CREDENCE TABLE

Thomas Eddolls makes a memorial side table for a local church

16 FRESHWATER FURNITURE

Reduxwood founder Justin Ephraim creates live-edge tables from reclaimed woods that have been underwater for decades

22 WHY CUSTOMER FEEDBACK MATTERS

Rachel Roberts explains the compelling reasons to engage with your customer feedback

24 CREDIT CARD DOVETAILS

Mitch Peacock explains a different way to achieve hand-cut dovetails

28 WRITING TABLE

Jim Bennett follows traditional Shaker design principles to make a special desk for a poet

35 TRITON COMPETITION

Find out how you could win over £800 worth of Triton Tools

36 THE FIVE P'S OF DECORATIVE DESIGN

Ryan Cheney demystifies the 'science' of furniture design

42 ACCIDENT BY DESIGN

A series of happy accidents have helped make Antony Elliot's fledgling furniture business truly unique

50 PREPARE FOR FIRST AID BEFORE YOU NEED IT

Geoffrey Laycock discusses workshop mishaps and accidents

52 MID-CENTURY STYLE HIGH CHAIR

New father Giuseppe Conte makes his son a high chair from American walnut

62 TRY, TRY AGAIN

From unsold pieces to broken joints, 'failure' is something that all furniture makers experience. However, as Caroline Pattenden finds, failure can be the key to success

FURNITURE & CABINETMAKING

If you would like to be featured in *Furniture & Cabinetmaking* please email FCEditorial@thegmcgroup.com



64 **CARVED TUDOR GOTHIC PANEL**

Steve Bisco carves and fumes an oak panel in a Tudor style

70 **EUROPEAN TREE OF THE YEAR 2022**

A 400-year-old oak tree from Poland won this year's title

72 **SHAKER-INSPIRED CHEST OF DRAWERS**

Kevin Ley makes a tall, elegant chest of drawers

78 **ARTICHOKE NEW DESIGNERS AND MAKERS CONFERENCE**

We report on a successful first event for this new annual conference

80 **REGENCY CHAIR RESTORATION**

Louise Biggs carries out some essential repairs on a set of antique dining chairs

86 **FURNITURE FOR A BALANCED MIND**

Ronan Morrison quit a high tech job in London to make fine furniture in Somerset and live a more tangible life

92 **HANDMADE: BRITAIN'S BEST WOODWORKER**

Channel 4's hit show is set to return for a second series. Could you be the next woodworking star?

93 **SUBSCRIPTIONS**

Don't miss our latest offers



94 **TURNED OAK KNOBS**

Richard Findley makes a batch of furniture knobs in white oak with black infill details

100 **SUPPORTING BRITISH CRAFT**

We find out how a QEST scholarship boosted Jack Relton's furniture-making career

104 **OAK KITCHEN TABLE**

John Bullar makes a modern-style dining table from solid oak

112 **CRAFTING ORDER FROM CHAOS**

F&C talks to Chris O'Dell, founder and head of design at Woodchip Werks in Toronto, Canada

118 **UNDER THE HAMMER - THE CONNOISSEUR'S LIBRARY**

This Bonhams' sale included everything needed for a well-appointed library, from antique books, prints and oil paintings to carpets, curios and globes; we take a look at the best-selling furniture lots here

120 **KAI-NO-KUCHI TSUGI - X-SHAPED SHIP END JOINT**

Radha Sivyer talks us through this tricky technique, which involves 24 different contact points



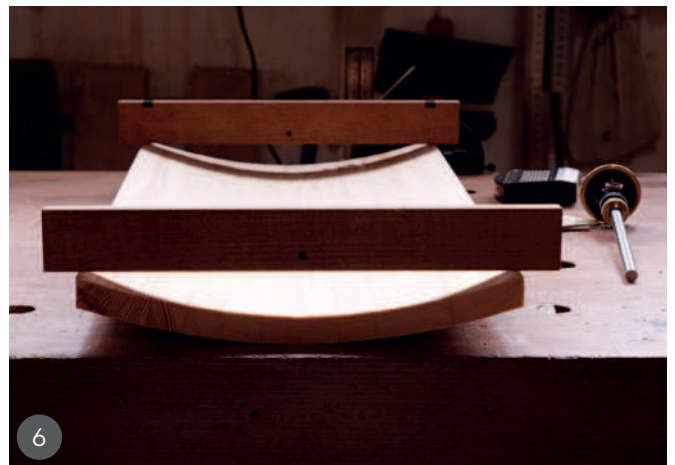
CURVED FRONT WHISKY WALL CABINET

ISRAEL MARTIN DESCRIBES
HOW HE USED HAND TOOLS
TO MAKE THIS CABINET FROM
ENGELMANN SPRUCE AND
RIPPLE SYCAMORE

I made this cabinet to store a bottle of whisky. The client wanted something very light, both in design and colour. We chose Engelmann spruce for the door and ripple sycamore for the carcass. It was great fun making this piece and I started with the door, so that I could later adapt the curve of the carcass. I wanted to add a shelf for a couple of glasses and a small drawer to store a surprise that I wanted to give to my client. I selected a piece of walnut to make the back panel, which also matched the colour of the drawer front.









PHOTOGRAPHS BY ISRAEL MARTIN

- 1 Making the winding sticks 2 Planing the pine form 3 The pine form for the door 4 Preparing staves for the core 5 Gluing up the core 6 Checking with winding sticks 7 Adjusting the core to allow space for the covering pieces 8 Gluing cover pieces on the top 9 Planing Engelmann spruce veneer 10 Detail of the finished door 11 The door before hanging the hinges 12 The finished half-blind dovetails and using the door as a template to draw the curve 13 Making the rebate for the back 14 Dry fit of the shelf 15 Chamfering the top piece 16 Detail of the top piece 17 Comparison of the first and second bottom pieces

THE ENGELMANN SPRUCE CURVED DOOR

I began by making a simple template and then a pair of curved winding sticks with that template. Then I started to make a pine form for the door and used the curved winding sticks to check and fine-tune the form. Once the form was fine, I prepared the staves for the core, and glued them together with the help of the form.

After that, I glued up the cross banding veneer. I left the coopered door smaller and then added the Engelmann spruce pieces on the top, bottom and side edges to hide the differences from the core and cross banding. Next, I glued on the Engelmann spruce shop-made veneer.

In order to avoid sanding after gluing up the veneer, the shop-made veneer had to be pretty smooth so no more work would be needed on it after it was glued up, apart from planing the sides and ends flush with the side and end pieces.

THE RIPPLE SYCAMORE CARCASS

When making the carcass I left the top and bottom pieces wider than the sides to be able to make the curves on them.

I joined the carcass with half-blind dovetails; at first I used through dovetails for the bottom but I didn't like the look of the piece so I made a new one.

I made a rebate in the back to later fix the frame and panel back and once the joinery was done I made the curve matching the door and a big chamfer on the top. Once the main pieces were done I made the shelf for the drawer with a matching curve with the door and a top shelf for the glasses, with an opposite curve.

THE CURVED WALNUT DRAWER

There are several ways to make a curved front drawer. In this case I made a thicker front so I could later make the curve on it. This way it is very easy to make the joinery. Once this was done, I made the outside curve and glued up a 2mm-thick walnut veneer on the front and then I made the inside curve.

When everything was ready I made the grooves for the drawer bottom using chisels. The back of the drawer was joined with through dovetails. The red cedar drawer bottom front has a matching curve.





18 Dry fit of the carcass 19 The finished side and front drawer pieces 20 Detail of the oversized drawer front 21 Gluing the front veneer 22 Testing the drawer 23 Fine-tuning the drawer front inside 24 Making the groove for the drawer bottom 25 The completed drawer 26 Detail of the bottom hinge 27 Detail of the top hinge (closed mortise) 28 Detail of the opening to install the bottom hinge 29 The quartersawn ash frame 30 Gluing the walnut panel 31 Detail of the French cleat attached in the frame 32 Frame and panel back test

INSTALLING THE OFFSET KNIFE HINGES ON THE CURVED DOOR

Installing knife hinges for a curved door takes the same steps as for a straight door, but I had to pay attention so that the edge between both of the hinges is straight, because in my piece top and bottom are not perfectly equal. I used the door to mark exactly the place to fix the hinges. That mark was my reference to make the mortises. Because the hinges are offset, I needed to make an open mortise for the lower hinge (the one in the door) to be able to install the door.

FRAME AND PANEL BACK

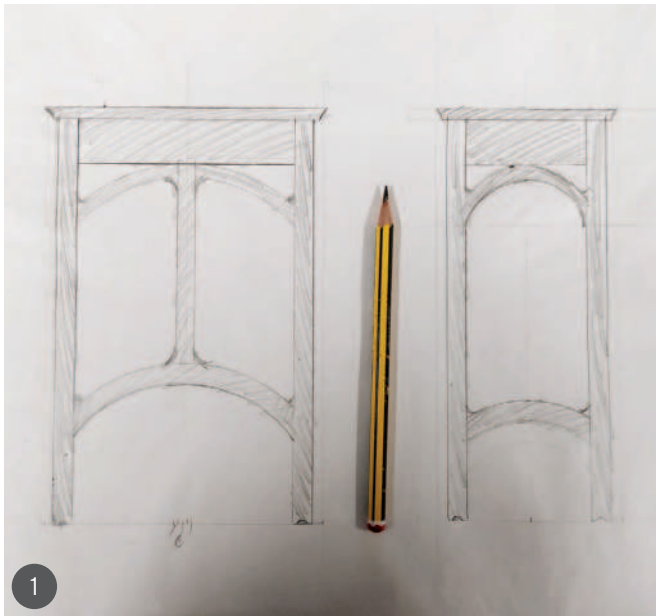
I made a frame and panel back. I used quartersawn ash for the rails and stiles and a piece of book-matched walnut for the panels. The frame was made with bridle joints for the top and bottom, and mortise and tenons to join the inside pieces. It is important to carefully measure the middle rail so that it looks the same over and under the top shelf.

I made a French cleat attached to the frame. This piece was joined with a half-lap joint and two screws to the main frame. Then I attached the back with old brass screws to the carcass.

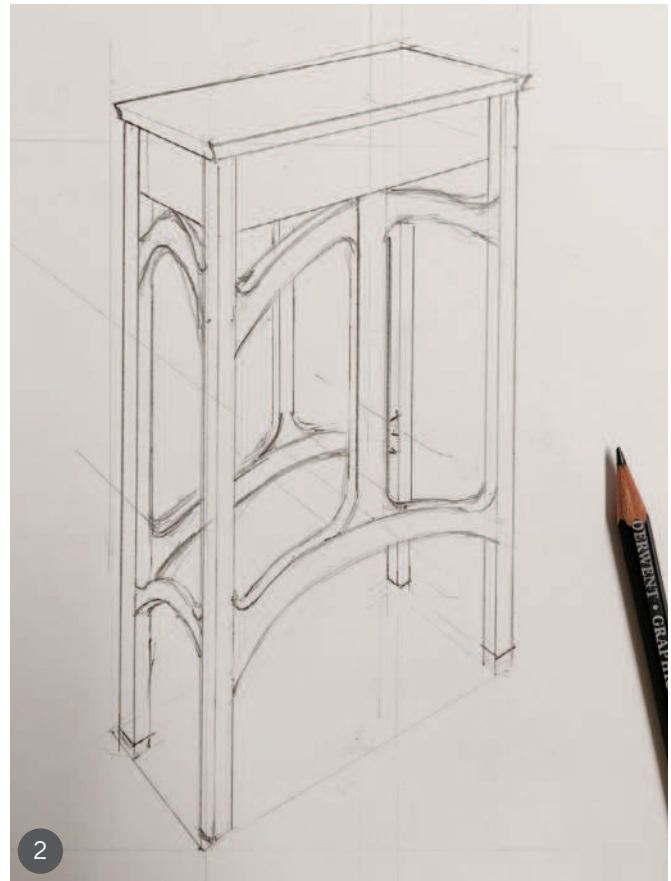


CREDENCE TABLE

THOMAS EDDOLLS MAKES
A MEMORIAL SIDE TABLE FOR
A LOCAL CHURCH



- 1 The initial elevation drawing was accepted ...
- 2 ... but the client also wanted to see a 3D version
- 3 Templates for the curved components were made by hand from MDF



I recently received an enquiry about making a memorial piece for the church of St John the Baptist in the village of Beckford, Worcestershire, a credence table to be precise. A credence table is a small side table placed in a church sanctuary, which is used in the celebration of the Eucharist.

After being given the initial brief – basically the required dimensions and some guideline photos of different pieces, which were very traditional – I began sketching out some ideas. The first idea that began to emerge looked entirely feasible and so I submitted the elevation for approval and happily on this occasion the response was very positive. The client did however request another impression of the piece so I drew out a 3D depiction for a better overview. The feedback was instantly positive and the design was approved with permission to start the project when a suitable time slot became available.

CHOOSING AND PREPARING THE TIMBER

In due course the open slot came around so I purchased some waney-edged oak in 25mm quartersawn and 50mm crown-cut boards for the project from my local timberyard. The waney-edged boards generally come in from France, where the forests are managed very well and the timber seems to be better dried than other alternatives.

The first thing to do was to draw the piece full size on a board. From here I could make the templates that would be needed to shape the curved components.

The templates were shaped out of 9mm MDF by hand using a bandsaw and compass plane, working carefully to the markings I'd drawn out. Once I had produced these I was able to use them to select the components from my rough milled timber boards.







4 The templates were then used to select the timber to use from the rough milled boards 5 The work was checked against the full-size drawing 6 The front and back frames and the side rails were knocked together to check the fit 7 & 8 With the table top and top rails ready, the glue-up could begin 9 A central upright was made for the front and back elevation 10 The frameworks were pinched together with sash clamps

Working carefully through the material to minimise wastage, selecting for grain orientation and nesting the curves where possible, I was soon able to begin the timber conversion process. I planed and thickened the selected timber for the curved pieces to a nominal thickness before roughing out the curved rails on my bandsaw, which I then left to settle before final shaping.

While these elements were settling, I sawed out the legs oversize and planed them to finish thickness, 45mm square, looking for rift figure in these for a nice, even look.

THE JOINERY

I decided to use traditional mortise and tenon joinery for this project as I felt it was necessary on a piece of heritage work such as this.

With the stock prepared I carefully marked out the mortise positions on to the legs, ganging them up where necessary to ensure consistent and accurate results. After cutting the mortises out with a hollow chisel mortiser it was then time to revisit the curved rails.

THE CURVED RAILS

I re-surface planed and thickened the rails down to final thickness. In doing so I could true up any slight movement caused by tension released when they were cut from the board.

On this occasion they had all stayed pretty true so this was relatively straightforward.

On to the final shaping. I decided to do this with routers and bearing-following cutters. I much prefer to shape on the spindle moulder, but owing to the tight concave curves in some of the elements of the design, this would have been impractical.

I used my templates and routers set up with top-bearing and bottom-bearing cutters and systematically worked with the grain, relying on only using one half of the template. In this way I worked all of my curved rail workpieces to a final shaped stage.

Once this was completed I could look at the tenon joinery aspect of the build. It was always going to be challenging to tenon up curved rails, and for a small amount of components I was reluctant to make time-consuming jigs for the process so, as I often find myself doing, I worked the process out using a combination of machine and hand techniques.

Firstly I marked out the shoulder lines from my full-sized rod on to the rails for reference and cut the tenon shoulders over the top of the saw using the sliding carriage and a baseboard with simple reference stops to keep the workpiece accurately in place during the cuts. I loosely developed a system as I moved along, thinking on my feet until I achieved the results I wanted: accurate and even shoulder lines.



11



13



12



14

11 The side rails were then clamped, bringing the whole table together 12 The table top was buttoned on using oak buttons
13 The piece was finished using satin oil 14 My maker's mark was added as a final touch

I could then move on to cutting the tenon cheeks, which I did on the bandsaw, working from carefully marked out mortise gauge lines. I used the rip fence to guide the pieces through the cut, just leaving the scribe lines in so I could fettle the joints together with shoulder planes, carefully checking the fit in a mortise slot on each tenon.

PRE-ASSEMBLY CHECKS

It was at this stage that I could start to bring everything together, first checking my work against my full-sized drawing. With things working out OK, I could begin to work the piece together as a whole.

Working thoroughly through each joint, checking for fit, I was able to partly knock things home to get an overview of the piece and make sure it would all work out, fitting the front and back frames up first before tying them together with the side rails.

Happy that everything was working out well, I cut the tenons to finished length with their mating mitres and then turned to making the table top and top rails.

THE TABLE TOP AND TOP RAILS

I had selected quartersawn timber to use here for its stability and, of course, its beautiful medullary rays. Carefully selecting from the timber boards, I jointed the top out of three pieces and dimensioned the rails to size before tenoning them into the legs. I used a twin tenon here to allow for any movement in the relatively wide rail; this is a traditional solution to jointing opposing grain direction.

THE GLUE-UP

With everything coming together it was time to start looking at cleaning things up and running through a series of staged glue-ups. I began by producing and jointing a central upright for the front and back elevation so I could start the glue-up in these areas.

After gluing and clamping these elements together and checking for wind and square, I worked through the rest of the components in stages, carefully sanding and fettling things up while other parts were curing.

With the front and rear rail work ready to go I pinched the frameworks up together with sash clamps, watching delightedly as the shoulders gradually slid home.

After leaving the glue to fully cure I was finally able to pinch home the side rails, bringing the piece together. With the frameworks in place, I could see the home straight starting to come into view ...

FINISHING

It was at this point that I wrestled the underframe on to the bench and carefully set about the final clean-up with abrasive papers, finishing to 240 grit. I always find this stage a crucial point in any project and make a particular point of keeping surfaces flat and true using rubber-based and cork sanding blocks, hand flattened. It's surprisingly easy to mildly round things off. This helps add to the overall crispness of a piece.

With the frameworks cleaned up I needed to fix the top on to it. The top, which had an undercut bevelled edge around the edges which I had produced with a canted blade on the panel saw, was going to be buttoned on. I routed a groove around the inside of the frame using an arbor cutter with a guide bearing to accept the barefaced tenons in the oak buttons, which I would soon go on to make. The 'buttons' slotted into the groove and I fixed through these into the top with brass screws, allowing everything to move accordingly.

After all that work there was in the end a piece of furniture standing proud upon the bench top.

I gave everything a final checkover and then started the finishing process. I decided to go for an oiled finish, using my favourite Osmo Satin 3032. I was aided on the first coat by some brilliant sunshine, which always helps pick out any slight blemishes or flaws that need to be taken care of. The wonderful medullary figure really came to life in the golden natural sunlight. After putting the first coat on I left the oil and wax blend to slightly tack off before removing with rags and giving it a good buff.

Coming back to the piece the next day I checked it over and decided to de-nib with 400-grit abrasive. Sometimes the oil can slightly raise the grain. It didn't do that on this occasion but the removal of any kind of mild unevenness with very fine paper allows for a perfect base to apply the final two or three coats depending on how things go. I worked on the extra coats, one a day until I was happy with the overall finish. The last thing to do was sign the piece using a custom-made stamp and it was ready for delivery.

After arranging to meet up with the church warden and the benefactor, I dutifully arrived on time at Beckford church to deliver the piece. Both of the very charming gentlemen were extremely complimentary of my work and I was shown around the church, which in parts dates back to the 11th century.

The table was put in place and I have to admit to feeling more than a little humbled to add to a part of culture and history with this church credence table, made in memorial to the gentleman benefactor's wife.

FRESHWATER FURNITURE

REDUXWOOD FOUNDER **JUSTIN EPHRAIM** CREATES LIVE-EDGE TABLES FROM RECLAIMED WOODS THAT HAVE BEEN UNDERWATER FOR DECADES

Along the Panama Canal stand a number of freshwater lakes, which were created when the canal was constructed, flooding the standing forests and preserving the trees in the water. Over a decade ago a Canadian company worked with the local Kuna tribal council to gain the right to harvest these woods – and then Vietnam-based lumber broker Justin Ephraim stepped in.

He and his company, Reduxwood, secured the rights to woods harvested from Lake Gatun and Lake Bayano, and are now processing them and transforming them into stunning live-edge furniture. Justin's aim is to create heirloom pieces that honour the wood they are made from. 'Each slab is like a story, and the wood talks to me' he says.

Justin is originally from West Vancouver in British Columbia, Canada, and he started working as a land surveyor straight out of high school. 'I performed topographical surveying, which required marking and tagging trees as well as commercial and residential land surveying,' he recalls. 'I then joined a custom home builder constructing high-end homes. I was lucky to be involved with almost every aspect of the build and fell in love with the woods that were used in those projects. The last house I built was a 1,300sq m house with a 53ft boat garage. That particular job led me into the lumber industry through my contacts at the lumber yards. I worked at a lumber yard for six years and eventually became a lumber broker, which I did for about 15 years.'



Justin's wife is from Haiphong in Vietnam, and the pair met and fell in love when she was studying in Vancouver. 'In 2007 we visited her family, and during that trip I saw a lot of opportunity and energy,' says Justin. 'We decided to make the move to Vietnam the following year.' His Reduxwood company now specialises in making premium live-edge tables using exotic woods found in and around Southeast Asia and the hardwoods reclaimed from freshwater lakes along the Panama Canal. When Justin found out about the woods being harvested in 2012 he immediately wanted to get involved. 'A partner of mine and I decided we should secure this wood since it is a limited and truly reclaimed product. People are quite passionate about that. We aren't harming living trees, and the lake trees would eventually rot and decay,' he says.

UNDERWATER WOOD

'This is reclaimed old-growth wood,' explains Justin. 'Over the course of decades of being submerged, it transforms due to lack of oxygen and the mineralised waters of the lake. The trees age slowly and gather colour and hue from dissolved minerals that are absorbed through the roots and branches. Many of their trunks have eroded into strange fan-like shapes and their surfaces have been etched with patterns made by insects and currents from the murky lake waters. In the dry season, parts of the trees stand exposed to the air and sun. This gives the exposed trunks additional unique characteristics. In the rainy

season, they exist as underwater memories of a forest long gone.

'The standing trees are cut by a diver using a pneumatic saw. The logs are air-dried for a period of time, then cut into slabs. The slabs must then dry for several additional years before we finish them into live-edge tables. Some of these tables can be as large as 1.5m wide by 6m in length and range from 6-10cm thickness once finished.' The woods are FSC accredited, and the finished pieces made from these rare and unusual materials can fetch some serious prices. Justin sold his first table for US\$17,000, and recently rejected an offer of US\$25,000 for another piece, believing he can get a better price for it. 'Having a tree that's been submerged underwater, some for a century, then shipping and milling them is a costly venture,' he says. 'Some woods are very unique and rare. I've been in the wood business for 25 years, and sometimes you get a really special piece of wood with some serious history – and that could go for thousands of dollars. But it's not easy to get those numbers – it's taken years. Live edge has been around for many years, but it seems in the past five years it's really caught on. It's remarkable to see how many people are doing it now.'

Justin says he loves live-edge pieces simply because he loves wood. 'While I was working as a lumber broker I was wholesaling a lot of live-edge slabs, and felt there was nothing more impressive than a giant live-edge table,' he says. 'At the same time, I was shocked by the abundance of live-edge wood that was out there, particularly guanacaste and monkey pod. There was



no way that much wood could be magically sustainably sourced. But with reclaimed wood I suddenly had, more or less, a non-destructive wood source. I felt that the best way to use these rare trees was to keep them solid and in large slab form, not cut them into dimensional lumber. The idea is to honour the tree and showcase the beauty of the wood.'

So what are the underwater woods like to work with? 'The lake trees are essentially old-growth forests that were flooded and preserved,' Justin says. 'Old-growth trees tend to have tighter grains and harder wood. Underwater, the natural stresses are removed and the wood transforms and matures in unique ways. This results in a very stable wood that is easier to machine than any land-harvested tree.'

And what advice would he give woodworkers who would like to work with these woods? 'You need the right customer for the project – usually a serious customer who wants something truly unique,' he says. 'The hardwoods we inventory are not widely known within the industry. Customers need to be educated as to why you are choosing to work with this wood for their project. These types of wood have a history and a story to tell.'

LUMBER MERCHANT

Justin has always wanted to produce live-edge tables, but he started out selling live-edge wood. 'Being in Ho Chi Minh City, Vietnam, which is a major player in worldwide furniture

manufacturing, I have had the pleasure of meeting and working with some of the most influential designers in the world, which is quite inspiring,' he says. 'I have worked with factories that have over 5,000 employees and found that these factories want scale and volume to manufacture as cheaply as possible. That wasn't going to work, so we built our own facility. I wanted to take time finishing these pieces, honouring the way they should be treated. What we have is special, each piece is unique and has a story.'

Starting out as a wholesale wood distributor, Justin trained in furniture making by studying greats like George Nakashima and by making mistakes. His original plan for the wood from Panama was to wholesale to the local furniture industry after the logs had been cut into slabs and dried. 'One day the chairman of the Furniture Association of Vietnam came to our facility to buy some of the slabs,' he recalls. 'Later, his staff rejected one of the slabs due to some natural defects in the wood. I could see something unique in that rejected wood, and I decided to pick up a planer and finished my first table. I ended up selling that piece to a customer in Holland for US\$17,000.'

Each live-edge slab is different so each piece of furniture needs to be worked differently. 'Rarely do we have an easy table top to finish,' admits Justin. 'The woods have been through a lot, being underwater for decades and taking years to dry properly. Again the wood is very stable but still needs an incredible amount of work. I take time to visualise the final table. What defects



PHOTOGRAPHS: MARK FARWELL



are there and how do I work with them? Do I use stitching or butterflies? What finish will be best for this piece of wood? It's a challenge that keeps me inspired to continue creating.' His go-to finish is tung oil, and he works with the Vietnam-based Lucero Company, which makes its own sustainable, non-toxic tung oils.

Justin's top tip for woodworkers wanting to get into live-edge work is to start by informing themselves. 'There's plenty of free knowledge out there,' he says. 'Look on YouTube for live-edge woodworkers. Get educated on types of finishes, oils, waxes, stains, varnishes and so on. Get a good sander, buy a nice piece of dry – 8-13% moisture content – solid wood and get to it. I'd also visit a builder in the area and ask them to talk about their business and how they got started. Lots of people will be happy to give advice if you show interest in what they have done to become successful. Oh, and think about the legs. We design our own and use both metal and wood,' he adds.

GROWING BUSINESS

Reduxwood's main production facility is a 1,500sq m factory near Ho Chi Minh City, Vietnam, with a small showroom to showcase products to the local community and interested travellers. 'We house hundreds of slabs that have been cut from hundreds of trees,' says Justin. 'It's a collection that very few companies have in the scale we have and it's taken over eight years to secure and dry. We have a small team who plane, sand, oil, pack; a bench full of sanders, routers and saws, chisels and hammers, plus some industrial machines for planing, cutting and drilling. And there is always some Grateful Dead playing in the background.'

In terms of tools, quality comes first. 'Don't follow the crowds and don't focus on price,' Justin says. 'A lot of people just want cheap. I say if you buy cheap, you buy it three times over. A good tool will always last longer. And keep in mind, the history and quality of the wood are most important.' His top tools are a

hammer and social media. He explains: 'You can do anything with a good hammer. Building a social media presence is a must nowadays. You might build something incredible, but the world won't know until you share it.'

As well as the Ho Chi Minh City factory, Reduxwood has a showroom in Vancouver, Canada – Reduxwood West – and a joint venture in California with the Jay Edward Group. A new showroom is set to open in Sheffield, in the UK, soon, and Justin plans to expand to New York, Hong Kong, London, Saudi Arabia and Thailand. 'Our newest location in Sheffield will have a collection of tables very few companies have in Europe. After shipping many custom tables to customers in Europe, we felt it appropriate to have a presence there,' he says. 'I will keep making live-edge tables and creating new base designs. I have some thoughts of making chairs to match our tables at some point,' he adds.

Strict lockdowns in Vietnam have had an impact on the business, which was completely closed for three months last year. 'Several of our guys fell ill, even after vaccinations, and were sent to quarantine camp which shut down our factory for two weeks,' Justin says. 'We're back now making up for lost time. One issue still persists however, and that is shipping. International logistics are a big challenge these days.'

The team is currently working on its most challenging build ever: a custom 4.3m diameter round table with a 3.6m lazy susan. Justin says: 'It sits on top of a copper-plated steel base forged to look like a tree. Once finished, this table will weigh over 2,000kg! This project has required months of design work and a ton of wood.' Overall, his aim is to honour the woods he uses with furniture that is built to last. He says: 'I want tables to last generations and for the customer to fall madly in love with our product. It becomes an heirloom. It's very gratifying what we do.'

reduxwood.com





WHY CUSTOMER FEEDBACK MATTERS

ONLINE REVIEWS AND FEEDBACK ARE AN IMPORTANT PART OF TODAY'S THRIVING BUSINESS WORLD. **RACHEL ROBERTS** EXPLAINS THE COMPELLING REASONS TO ENGAGE WITH YOUR CUSTOMER FEEDBACK

In the digital age, the customer truly is king (or queen). This shift has come about through the voice they have been given through social media channels. Online reviews and feedback are today's version of old-school word-of-mouth recommendations, and although the medium of communication may have changed, they are still the very lifeblood of small businesses.

So if you haven't started fully engaging with customer feedback, here are some compelling reasons why you should...

THE FIGURES SPEAK FOR THEMSELVES

Online reviews and ratings of businesses on sites like Yelp, Facebook, Google and TripAdvisor have the power to shape customer behaviour. According to research by conversion optimisation specialist invespco.com, 90% of customers read online reviews before visiting a business. Not only that, but 88% of your potential customers trust online reviews as much as personal recommendations. Furthermore, 32% of those quizzed read between four and six reviews before making up their mind about the company.

TAKING THE ROUGH WITH THE SMOOTH

OK, the same research found that if a business has negative reviews, 86% of people will hesitate about buying or commissioning work from it. But while it's tempting to think you'd be better off without any feedback in that case, customers will take an even dimmer view of your company if they can't rate the service they've just received. And the key word here is hesitate. You've not lost the lead entirely, they're just weighing up their options. There's room to turn things around. Also, in the digital arena, everyone fully expects to be able to give their opinion on absolutely everything – from the movie they've just watched to the pair of gardening secateurs that has just arrived from Amazon. So it arouses suspicion if the option isn't there.

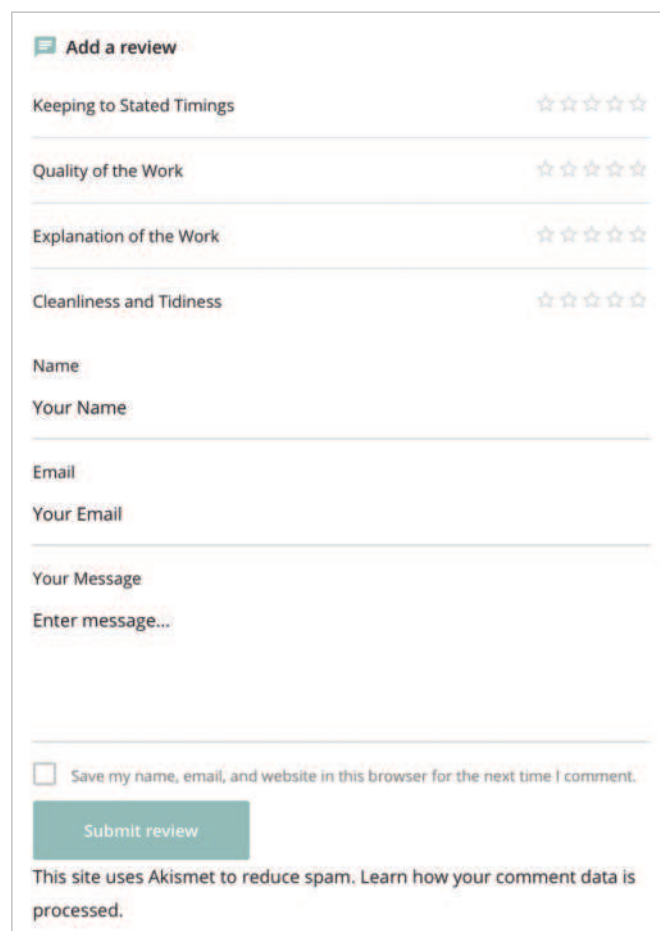


TROUBLESHOOTING WITH GRACE

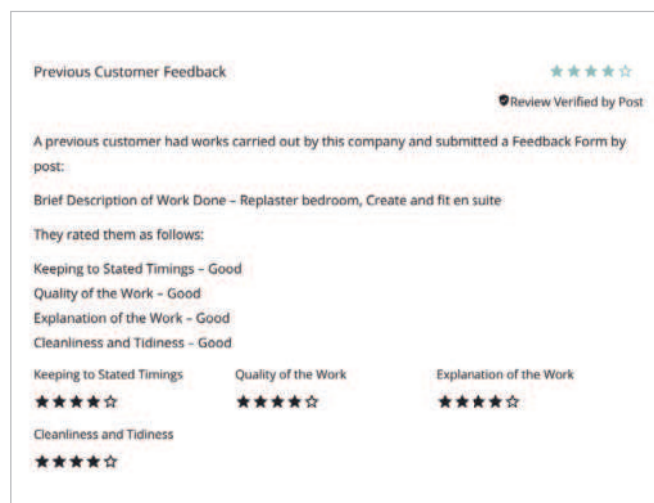
If someone has a valid reason to complain, the way you handle the communication can be turned to your advantage. Think about it: being defensive isn't going to help sort the situation out and neither is it going to make other potential customers feel good about commissioning you. It's far better to be gracious, accept responsibility for the issue and then make every effort to sort out the problem. And interestingly, analysis by customer software company ReviewTrackers found that customers perceive 'perfect' reviews as too good to be true. In fact, they appreciate less-than-perfect reviews and ratings as an important element in their research and decision-making process.

BUILDING TRUST

In a consumer review of 2,000 people by industry-leading advisory company Deloitte, the majority admitted that family and friends, independent experts and yes, you guessed it, customer reviews and feedback are the most trusted sources of information. Further, only around one in 10 consumers turn to the product manufacturer or service provider for reassurance. This suggests that previous satisfied customers are actually the best ambassadors for your business, so it's key that you actively encourage their feedback.



The image shows a web form for adding a review. At the top, there's a green button labeled 'Add a review'. Below it are four rows of rating categories, each with a five-star icon: 'Keeping to Stated Timings', 'Quality of the Work', 'Explanation of the Work', and 'Cleanliness and Tidiness'. Under these is a 'Name' field with a label 'Your Name'. Below that is an 'Email' field with a label 'Your Email'. Then there's a 'Your Message' section with a text input area labeled 'Enter message...'. At the bottom, there's a checkbox labeled 'Save my name, email, and website in this browser for the next time I comment.' and a green 'Submit review' button. A small note at the very bottom says 'This site uses Akismet to reduce spam. Learn how your comment data is processed.'



The image shows a summary of a previous customer feedback form. At the top, it says 'Previous Customer Feedback' with a five-star rating and a 'Review Verified by Post' badge. Below that, it states 'A previous customer had works carried out by this company and submitted a Feedback Form by post:'. The 'Brief Description of Work Done' is 'Replaster bedroom, Create and fit en suite'. It then lists the ratings: 'They rated them as follows:'. The ratings are: 'Keeping to Stated Timings - Good', 'Quality of the Work - Good', 'Explanation of the Work - Good', and 'Cleanliness and Tidiness - Good'. Each rating is accompanied by a five-star icon.

IT'S VALUABLE FOR YOUR BUSINESS, TOO

By asking your customers to provide you with honest online feedback, you are demonstrating that you value their opinions. It is also an essential tool to judge current customer satisfaction. How can you know where the tweaks need to happen if you aren't regularly checking that the way you run your business is actually working? But it's also invaluable information for you – it can help you to identify the areas of the business you need to improve upon and sharpen up. And rather brilliantly, it's free.

MAKE IT EASY

With the ever-increasing demands of modern-day life, many of your customers will be time-poor. So an email request asking them to fill in an in-depth questionnaire is likely to be ignored or filed under 'to deal with later'. Keep it simple by asking your customer to head to your website and leave a review on an online form. Include just a handful of straightforward questions, asking your clients to grade the service they received from you from 'poor' through to 'excellent', plus an optional space for leaving a personal comment.

GET YOUR CUSTOMERS TO ENGAGE

If you still doubt the power of customer feedback to help or hinder the fortunes of your company, 2017 analysis by customer software company ReviewTrackers found that only 3% of people don't consider reviews when narrowing down their decision for choosing a service provider. So it's vital to encourage your previous customers to give some kind of testimonial – however short and sweet. It really could make the difference between them picking you or clicking on to the next craftsman. Think about offering some kind of incentive – such as a gift voucher for an email address selected at random from those customers who have left feedback on your online page. Good luck!

It's vital to encourage your previous customers to give some kind of testimonial – however short and sweet. It really could make the difference between them picking you or clicking on to the next craftsman.

CREDIT CARD DOVETAILS

MITCH PEACOCK EXPLAINS A DIFFERENT WAY
TO ACHIEVE HAND-CUT DOVETAILS

Preparing the perfect dovetail joint is, for some unknown reason, often seen as a rite of passage from beginner to experienced hand tool woodworker. As with many things in life, the process of making the perfect dovetail requires many individual steps to be completed to the letter. Here's one way to almost fool-proof the process.

In my case, the first perfect dovetail was simply beginner's luck, and many years later, as an experienced woodworker, I don't mind admitting that my dovetails can still fall short of perfection. Almost always I can accredit these mistakes to either

rushing or distractions, and they simply act as a reminder. For a beginner though, poor results can all too often dishearten and discourage the unplugged woodworker, maybe even turning them to the dark side of dovetail jigs and routers.

I came up with this method of marking out and cutting while attempting to speed up the preparation of randomly spaced finger (box) joints, and make them easier for beginners to prepare. It both draws from and adds to established techniques. Applied to dovetails, I found it worked remarkably well, and I hope you'll find it interesting.





PHOTOGRAPHS BY MITCHEL PEACOCK

THE METHOD

1 When I first experimented with this method, I made an end grain cut with the dovetail saw and looked for something that was a tight fit in the kerf. It needed to be flat and have a consistent thickness, and a credit card was just ideal. Although that's where the name came from, different saws can have different sized kerfs, so if you try this method you may require a different thickness spacer. The credit card brought more to the party than its thickness though, as we shall see.

To enjoy all the benefits, the joint should be cut tails first, initially leaving the waste intact.

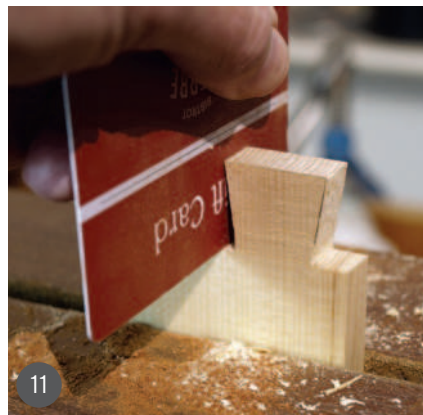
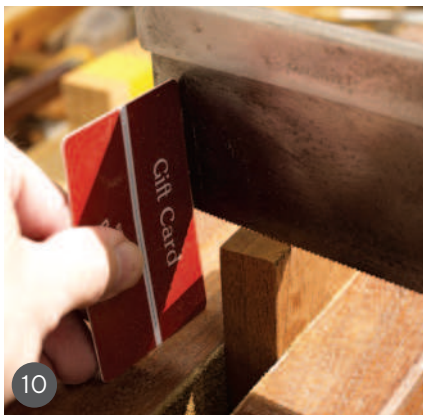
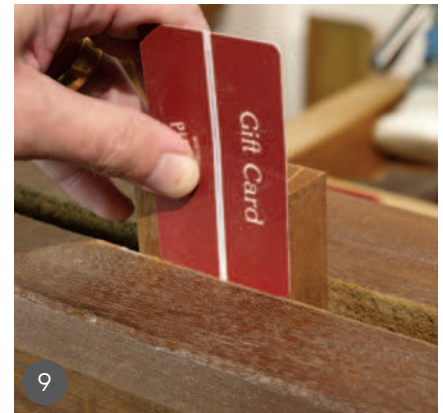
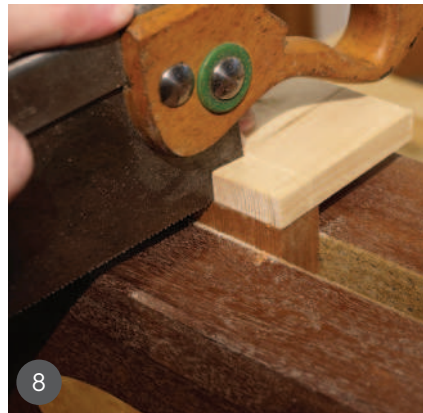
2 Sawing vertically is easier than at an angle, so set the tailboard in the vice aligned with the tail layout lines. Make half the cuts before aligning again for the other half.

3 The tails should be sawn square to the tailboard, and the card jigs the saw perfectly to start the cut ...

4 ... then keep the saw cutting plumb down the layout line.

5 Next, the card (or alternative saw kerf thick spacer) is used to offset the tailboard, first one way then the other, while using the heel of the saw to transfer the layout to the pinboard. Offset the tailboard to the left ...

6 ... to transfer the right side of the tails...



7 ... and then offset to the right ...

8 ... to transfer the left side of the tails. The offsets ensure that the kerfs cut into the end of the pinboard lay at the extremes of the areas that should be removed, and are therefore the ideal position to saw the sides of the pins.

9 Since the pins should be cut square to the end ...

10 ... the card can be used to check the alignment of the saw plate.

11 After sawing or chopping most of the waste material away, pare flat between the gauge lines of the tailboard, using the straight edge of the card to check progress ...

12 ... and do the same for the pinboard. A slight hollow is acceptable between the gauged lines, but definitely no hump.

13 If the spacer was the right thickness, then the joint should be nicely snug.

14 Although I don't propose anyone use this method in the long term, as transferring layout with a knife and sawing to the side of the knife-line is quicker, I do think it helps reinforce the key points and allows beginners to enjoy the success of dovetailing.

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WRITING TABLE

JIM BENNETT FOLLOWS TRADITIONAL SHAKER DESIGN PRINCIPLES TO MAKE A SPECIAL DESK FOR A POET

Some years ago, having retrained as a furniture maker, I relocated from Liverpool to rural Suffolk. The move was a major lifestyle change as I started making furniture on a full-time basis in a larger workshop – a barn on a farm.

Following the move my wife, Rebecca Goss, a writer and poet, became friendly with the well-established poet Pauline Stainer, who lived in our village. In a chance meeting in our kitchen Pauline told me that having written for many years and having numerous books published she had always wanted a bespoke writing table or desk, and was that something that I would be interested in making? Yes, I was. I set to work doing some thinking.

In his book *The Fine Art of Cabinetmaking* James Krenov refers to creating something as ‘... the adventure that results in the quiet satisfaction of making objects that will endure and

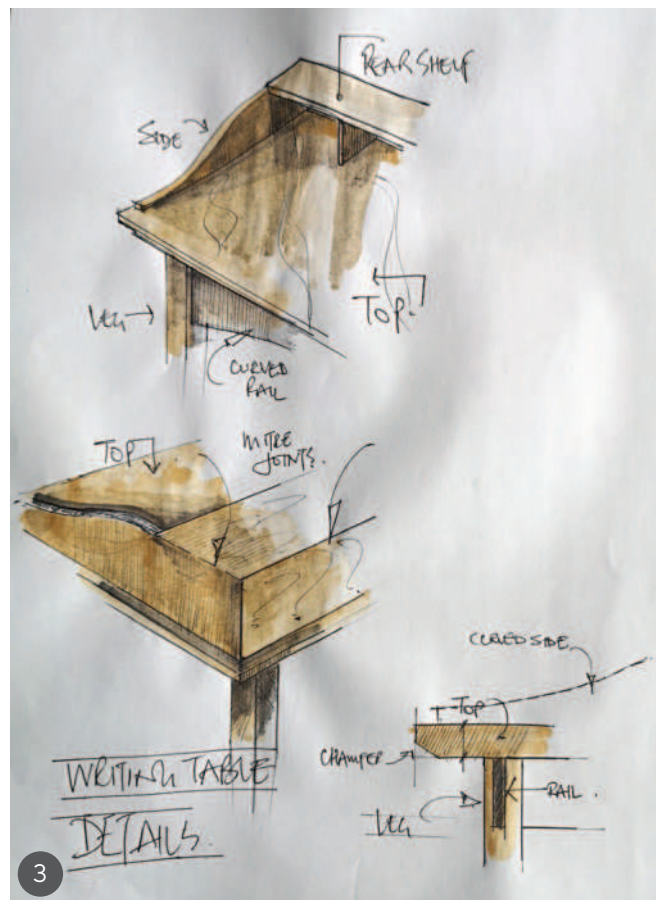
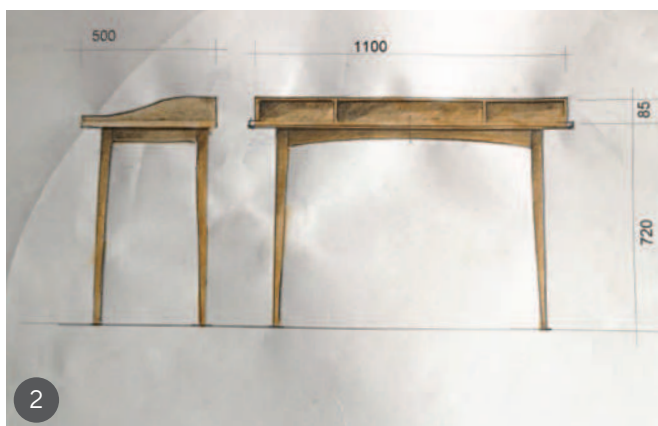
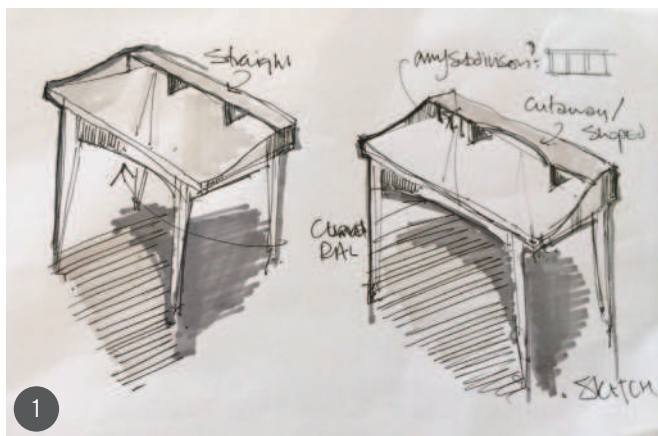
serve their purpose well, bringing pleasures to those who choose to live with them.’

Working with someone who is not only very accomplished in her own field, but had thought about what she wanted for a long time, and is going to use it daily as part of creating her own work, made this my own rather special adventure.

As a result, discussions – lots of discussions – took place. Pauline knew that she preferred a lighter, more pared back look as opposed to a heavy one – possibly more like a writing table rather than a desk, which I envisaged having built-in drawers. However, she did need some form of storage.

I find the act of drawing very creative and a quick way to explore multiple ideas, good and bad. As a result, I produced lots of sketches showing various options of desks with drawers to the left and right or both, and I visited Pauline to discuss the possibilities.





1 The initial sketch ideas 2 More detailed elevation drawings in watercolour 3 Construction sketch details

She showed me where she worked. It was in a room on the first floor of her cosy timber-framed Suffolk cottage – up a very narrow twisting staircase. The house interior said a lot about Pauline's aesthetic – simple, colourful, a mix of older furniture and more contemporary 'one-off' pieces.

I immediately realised two things – first that the design of the piece had to sit well within this setting, and secondly that a larger desk with drawers was never going up that staircase.

This thought led me to the conclusion that the answer lay in a writing table with separate storage.

DESIGN

As a furniture maker I have always been interested in the Shaker movement. The word Shaker in terms of design has been overused in the past 20 years. However, I had a deeper interest in the process behind the designs, seen in terms of a modern-day maker. I did not want to replicate, but to learn from their methods to create my own contemporary furniture.

The Shakers followed a simple way of life. Their homes were known for their stripped back, austere architecture and furniture. They created proportionate, unpretentious practical furniture that was made to last.

Hallmarks of their work include clean lines and gentle

curves with tapered legs. As makers they mastered fine hand-cut dovetail joints for drawer construction and used mortise and tenon joints for legs and aprons. The work is restrained, it concentrates only on the essential qualities of design and craftsmanship. Its beauty is in its simplicity. I had my design.

It was to be simple and attractive from all angles, as in future it may be placed centrally in a room, not just against a wall. The top needed to be sufficiently strong to carry out its function but not look heavy.

The subframe was to be supported on four legs – with just the inside faces of each leg being tapered as opposed to all faces – to give a feeling of lightness. The legs were to be jointed together at the top – where they were fully square and strong, by plain timber aprons running between them.

As a result the final design was basically a table. In order to make it into a writing desk I designed a raised shelf to run along the back edge, supported by gently curving timbers to the sides and at the rear. The space formed between the table top and the shelf was divided into three storage sections – one larger central space and two smaller at the sides for balance. The shelf was to be gently curved to the front edge to reflect the subframe. The spaces were to remain open rather than having any form of drawer – simplicity was key.





4 Sawn timber selection of kiln-dried English ash **5** Selection of larger timbers for the table top planed on one side to show the grain pattern and colouring **6** The remaining smaller components were cut out using the rod. Note: these were carefully stacked and labelled as they have also been selected for grain and colour depending upon location **7** Cutting the curved timber using the router fixed to a trammel, which in turn is fixed to the work table at the other end **8** Using the curved-off cut as a former for sanding the underside of the curved apron. **9** Dimensioning the curved apron using a hand plane and cabinet scraper. The workpiece is held on to the bench using a piece of MDF from the tail vice and a lower bench stop at the top **10** Dimensioning the remaining aprons using a hand plane and cabinet scraper. The piece is held on to the bench using a piece of MDF from the homemade tail vice and a lower bench stop at the top **11** Final dimensioning of the four legs, with tapers to the inner faces, using a hand plane and cabinet scraper **12** Legs with the mortises cut and aprons with tenons cut ready for dry fit **13** Top of the legs with mortises cut to the internal faces. The tenons were mitred here for maximum glue area **14** Orientation of the timbers for the desk top, planed on one side ready for face edging and thicknessing

TIMBER SELECTION

Timber selection is always enjoyable and a very important part of the process. We had established early in the design stage that the desk was to be made in solid timber. To give the piece a more contemporary feel, I suggested using a lighter timber throughout. I have always loved the colouring and grain of ash and use it whenever I can. I buy most of my timber from local suppliers and managed to get some lovely kiln-dried English ash. Ash has a fairly straight grain and is good for freestanding furniture. Some of the timber had darker streaks – often referred to as olive ash, which I could use to my advantage.

I drew out a full size rod to work from – sometimes referred to as ‘building furniture on paper’. I find on some jobs that you need to see the full size components to refine the detailed design as the build progresses. This is where a client has to trust the eye of the maker.

From the rod, the components are selected from the available timber – looking at the grain direction, colouring and pattern in each case. It is also important at this stage to make sure that there are enough suitable timbers for the larger areas – not necessarily matching – but timbers that will read well together. They were selected first. This is especially the case for the table top, the smaller components being cut from the remaining stock.

All components were then cut slightly oversize from the plank, being selected for strength and visual appeal. The timbers were

face edged and squared on the planer thicknesser and left to settle. In my experience, once cut, the timbers will move because of the released tension, so it's better to leave them before final dimensioning in a few days' time.

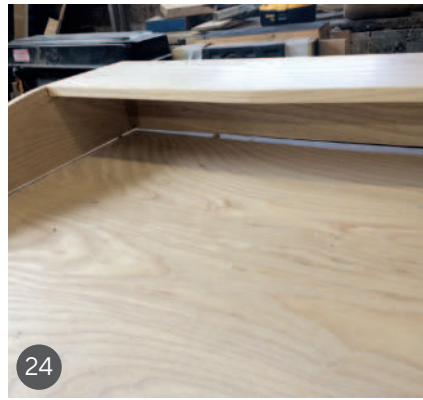
SUBFRAME

The design called for a simple subframe to be constructed comprising timber legs held together at the top with timber aprons. Traditional joinery was to be employed here. The connection of the legs to the apron had to be strong and rigid as there would be no stretchers provided at a low level to prevent any outward movement at the feet. In true Shaker style, a traditional mortise and tenon joint was selected.

The front apron was to be curved partly for aesthetic reasons and also to allow room for a ‘knee hole’. This curve was formed using a router fixed to a long trammel made out of MDF. The radius of the curve was calculated. A piece of ash milled to the correct thickness but larger than the finished dimension of the front apron was fixed on one end of the large workbench. This was oversized as it would have been much more difficult to cut the curve accurately on a finished size timber.

The trammel was fixed at one end to allow it to scribe an arc. The router was fixed to the other end and the radius cut in stages. Once completed, the apron was then cut to the correct size and the tenons cut at either end. The curved-off cut was used as a sanding guide to clean the underside of the apron.





15 The subframe being clamped and glued up, following a successful dry fit and testing for square and fit **16** Top being glued up with clamps and cauls to keep it level **17** The subframe completed and glued with the oversize top **18** Table top showing the ash grain pattern before final finishing and sanding **19** Underside of the top showing chamfer detail and bow ties **20** Dry fitting of the oversized ash top shelf with test mitred detail on this end **21** Close-up showing the mitre detailing of the top shelf to side and rear **22** Gaffer tape was applied to all the mitre joints for the glue-up **23** Positioning of the top assembly over the table showing the dowel fixings **24** Close-up of the top shelf showing the curved detail on the front and the dowel detail **25** Using the offcut from the curved side as a clamp to provide even vertical pressure **26** The completed unit including the top shelf and internal supports before final finishing **27** The underside of the table top showing the shop-made ash fixing buttons set into the routed groove on the rear of the aprons to allow for movement

The legs were to have a two-sided taper – the rear and internal faces tapering from 45mm thickness at the top to a 20mm square at the foot, using a jig on a tablesaw and then dimensioned using a hand plane and cabinet scraper. Mortises were cut out of the legs on my old Multico mortising machine, and the tenons to the aprons were cut by hand using a marking gauge and tenon saw.

Having made all of the components for the subframe, they were dry fitted together to ensure a good fit and then, prior to being glued and clamped, I routed out slots 10mm wide around the back face of the aprons. This was to enable me to fit my own shop-made ‘buttons’ at intervals to hold the top to the subframe.

THE TOP

I decided to make the table top out of three pieces of ash each approximately 180mm wide. I do not like using wider boards as the

tendency to twist in a heated environment increases considerably. Once planed, thickened and square edged they gave me a top of about 520mm wide – enough to trim back to the finished size.

The planks were biscuit-jointed – not for strength as the rubbed joint would have been strong enough – but to align the planks to minimise hand planing and finishing. At 500mm wide I cannot use my thicknesser.

The top was glued up using sash clamps and cauls to try to ensure that it remained flat. Once released, it was checked and found to be acceptable. It was then laid on the bench to be finished with my favourite No.5 Stanley plane and cabinet scraper.

Kiln-dried ash can be tricky to finish due to the tear-out of the grain, which is why my preferred method is to use a cabinet scraper. However, in order to reduce the extent of scraping I decided to do some trial and error adjustments of my plane. I found after many attempts, that the closer the chip breaker



28 The completed writing table in the workshop with a finish of Osmo hard wax oil 29 The writing table in its new home, showcasing the ash grain



was set to the edge of the iron, the less tear-out I was getting – to the point where if it was set very close I got virtually none. This allowed for a final few passes of the cabinet scraper to get a satisfactory finish with minimal sanding.

When completed, the top was trimmed to size and the underside of each edge was chamfered using a router and hand plane in order to visually look lighter. I had noticed some slight splitting to the underside of one of the boards during planing – always difficult when selecting longer pieces to get them free of any defect. I thought I would be able to lose the split when routing the chamfer but although it wasn't deep, it was visible, so I took the decision to add a couple of bow ties to the underside to prevent further spread of the split, just as a precaution.

The top was fitted using handmade ash 'button' fixings screwed to the underside of the top and held within a rebate in the back of the aprons, which allows for movement of the top while still remaining secure.

UPSTAND

The upstand to the rear of the table was a bit more involved. It was made from 15mm-thick ash. This was supported at the sides by the curved timbers. I wanted a gentle curve but also had to allow for the rear part being flat to accept the raised shelf. Several test pieces of this shape were cut out before the final design was selected purely on its visual appearance.

Fixing the bottom edge of the curved sides to the table top was done with wooden dowels for alignment and then glued and clamped.

The choice of joint is an important design decision. By using dowels I was able to have much more choice in the positioning of the top section, with cleaner lines to suit this design. Dovetail joints, for example, can restrict the design as the positioning of the components is restricted to the edges. Strength was not an important consideration here.

Clamping anything with a curve presents a challenge and the trick is to always keep the offcut. As can be seen in photo 25, this

allowed a vertical pressure from clamps along its length.

I decided that I did not want to see any end grain on the raised shelf. As a result, all of the joints between the top and back and also the level part of the side supports were mitred, which was very time consuming. The detail chosen was not the easiest way to build this raised section, and not very Shaker. It was in fact rather conspicuous, unnecessary even.

However, as is often the case I feel the end result was worth the effort. I am sure there are numerous details like this that most people would not even notice, but which contribute to the overall visual simplicity.

As I mentioned previously, I do not want to replicate, but to learn and create my own contemporary furniture.

THE FINISH

Both the tables and the drawer unit were finished with a wax oil. The grain of the ash becomes really pronounced and the contrast of the darker to the lighter grain worked well. All that was left then was the delivery and that staircase...

As the table top had been fitted with buttons it was easy to remove and refix in situ, leaving the fairly lightweight subframe as the largest component to manhandle. All went surprisingly well and Pauline has been creating at her table ever since.





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PHOTOGRAPHS BY RYAN CHENEY, UNLESS OTHERWISE STATED

THE FIVE P'S OF DECORATIVE DESIGN

RYAN CHENEY DEMYSTIFIES THE 'SCIENCE' OF FURNITURE DESIGN

Compared to building furniture following an existing example or plans, designing original work may appear to some to be a nebulous 'soft science' or some near-magical talent that some people are born with and others aren't. I hope to dispel that myth to some degree by showing that designing furniture doesn't have to be the galaxy-brained activity it is sometimes made out to be, but rather an adherence to certain basic principles, many of which were hammered out centuries ago by our furniture and cabinetmaking predecessors.



In the course of my career as a furniture designer and maker, I've spent a great deal of time studying furniture design in books and magazines, as well as travelling around the US and Europe taking in every decorative arts museum, every flea market, every antique store, furniture store and furnished historic residence I could find. I've observed, analysed and examined more pieces of furniture, both exemplary and shabby, than I can even begin to recount.

During that time I also designed and built a lot of furniture from scratch. Not surprisingly, my early efforts were pedestrian at best. Some were a little awkward even. No one who is new to design should expect any different. If you think you're going to pick up an electric guitar and sound like Eddie Van Halen right from the start you're going to be disappointed. That said, in the course of my efforts, I found myself adhering to certain design principles that dramatically improved my design sense and that may shorten the learning curve for others, and that is what this article is about.

PRELUDE TO THE FIVE P'S OF DECORATIVE DESIGN

The five P's of decorative design is a mnemonic device I came up with to describe the design principles I had come to apply almost any time I had a design decision to make. They are, in no particular order:

Proportion, Palette, Projection, Positioning, Preservation

Whether or not you can rattle them off when stopped on the street and given a pop quiz is wholly unimportant. I probably can't even do that. What is important is understanding that these concepts, while not written in stone, can serve as a set of guide rails that can keep you on course during the development of a new design.

Before I address each of these principles in detail, it's important to understand that they are in large part predicated upon having answered certain, more practical questions first. These include, but are by no means limited to:

What are the overall dimensions that are required? A piece often needs to fit into a certain space, fit people ergonomically or serve as storage for certain objects. The



overall dimensions of a piece is where a design starts off proportionally.

What existing style is being called for, if any? What is the environment that the piece will occupy? Plopping a Danish Modern piece in a room full of Queen Anne furniture, or vice versa, is tone deaf at best. Even if you're designing a wholly original piece, it's important that it plays well with its surroundings rather than sticking out like a sore thumb. Just as you typically wouldn't wear a tuxedo to a clown convention, you should take into account what else is in the room. You can also take cues from this environment when determining your materials palette (which will be addressed later).

What are the practical considerations? What does the stated budget allow for? You can't make an entire executive desk out of carved ebony on a tulip poplar budget unless, perhaps, you run afoul of the law in some way.

Does what you have in mind fall within the scope of your tooling and talents? While it's good to build on your experience and try new things, taking on a project that falls largely outside your skillset is a recipe for frustration. The

same is true for a project requiring tools you don't own, don't have access to and don't have the budget to purchase.

With all of the above in mind, here are the five principles I find helpful when it comes to making the design decisions that will hopefully give your piece life and make it pleasing to the eye. I'll use my Signature Wall Mirror (and some classics by other designers) to illustrate these points because I know with certainty how it was designed, but you should be able to walk into any decorative arts museum and see these principles in action as well.

PROPORTION

With the overall measurements already determined, it's time to divvy up the piece into its constituent sections.

I wanted to fill a space between two wall sconces with a mirror, a cabinet for keys and sunglasses along one side, and perhaps a couple of small drawers for small items. Rather than taking up the space between the sconces in its entirety, effectively crowding them, and ending up with an odd width measurement, I scaled the overall width of the piece back to the nearest round number of 80cm.



Starting with a number like 80cm instead of 83.3cm would dramatically simplify future decisions about the proportions of other parts of the design like, for instance, how large the cabinet that houses the keys and sunglasses should be. Well, 20cm is plenty of room for those items and is a tidy quarter of the overall width of the piece, leaving the other three-quarters of the overall width to become the mirror at about 60cm square.

What about the little drawers? It made sense to extend the bottom of the cabinet to house the drawers so they wouldn't be so high up the wall you couldn't see into them, but how much? The diminutive stature of the drawers meant it wouldn't be practical to make them very deep, so I decided on 10cm; 10cm also happens to be equal to the depth of the cabinet and makes the overall height of the cabinet one-seventh taller than the adjacent mirror.

Are you noticing a theme yet? Let's recap. The cabinet is one-third the width of the mirror, one-quarter the width of the overall piece, one-seventh taller than

the mirror and half as deep as it is wide. In other words, everything is in simple, whole number proportions to everything else as much as possible.

Let's keep going. The copper discs that run up the centreline of the cabinet are graduated in equal measure from one to the next. The drawers are graduated in sevenths, with the upper drawer being three-sevenths of the opening and the lower one, four-sevenths of the opening. The simple act of hewing to whole number proportions made decisions about the sizing of everything in the design much easier than standing back and saying 'I think that looks right... or does it?'

This approach is nothing new. In fact, it's really, really old. The proportional values of everything from Greek temples to Federal-style furniture were built on whole number ratios. The end result is intuited by us, as casual observers, to be 'well proportioned' or 'harmonious', in large part because whole number proportions are easier for our brains to process, even if we don't realise that's what our brains are doing.

George Walker and Jim Tolpin have helped repopularise this and the use of other ancient design principles, like artisan geometry, in an excellent series of books published by Lost Art Press. I can easily recommend them to anyone interested in design. Their writings can even show how one can throw out standards of measure like metric or imperial altogether and accomplish the same ends with a simple pair of dividers – a boon and a revelation to the arithmetically challenged.

PALETTE

The question of palette largely has to do with the question of which materials you use to build a given piece and how to use them in a logical way. As discussed earlier, it helps to take stock of the piece's intended surroundings. What colours do you see? Are the tones generally warm (browns, tans, reds, golds) or cool (black, white or greyscale)? If the former, I might go for similarly warm toned woods like cherry or walnut. If the latter, I might go with white oak or maple and finish it with a waterborne finish that goes on without ambering the colour, or perhaps ebonised walnut.

Palette also refers to being thoughtful about the number of different materials that get used in one piece. Generally speaking, it's better if you can count them on one hand. Making an end table, especially an uncomplicated one, from eight different wood species generally doesn't yield a pleasing result. Also, some woods play well with each other while others don't. I particularly like how cherry and some dark chocolatey walnut complement each other, but I can't imagine a scenario in which I would pair cherry with white oak. Some woods (I'm looking at you, purpleheart!) don't go well with much of anything.

Simpler designs lend themselves to fewer materials while more ornate ones logically allow for more. Things like mixed media or marquetry expand the number of materials that can be used tastefully even further. My wall mirror, which is ornate in design by today's standards, uses cherry, walnut, ebonised walnut, copper, leather and handmade paper. I chose a limited number of materials early on in the process and stuck to them throughout. Had I made

1 & 2 Proportion – harmonious spacing and measurements are key to the success of my Signature Wall Mirror design

3 & 4 Palette – reading the room and choosing a palette. The collectibles chest of drawers (photo 3) is both contemporary and uses cool tones in its palette via quartersawn white oak with a waterbased or ebonised finish. The Stickley-inspired media console (photo 4) is, of course, a traditional furniture style and uses warm toned cherry and black hardware in its palette. Both now reside in environments made up of similar stuff

5 Projection – the Greene & Greene brothers were masters of projection, using proud ebony plugs, splines, breadboard ends and indents, creating shadow lines and increasing visual interest

one of the drawer pulls brass and the other copper, or used polished stainless steel hinges for the doors, the results would've been distracting at best, and clearly would've run afoul of good taste, not to mention logical sense.

PROJECTION

You may have noticed examples of period furniture styles in decorative arts museums that are practically covered with mouldings. Why is this? Design elements that stand proud and/or recess from the face of a piece of furniture take advantage of light and shadow to create visual interest. Ambient light plays off of projection in a piece, producing shadow lines, and those shadow lines can add a great deal of visual interest to a piece that may otherwise be little more than a box on four legs.

Now consider that same, moulding-laden period piece sitting in a room prior to the invention of indoor electric lighting. The piece may be subject to raking light from the winter sun through a nearby window. As the sun arcs low across the sky, the mouldings cast shadow lines that change throughout the day. It may look quite different at 9am than at 1pm and again at 4pm. It may look even more different once the sun sets and the candles are lit. The presence of shadow lines takes the appearance of an otherwise static, stationary object and effectively makes its appearance a dynamic one. These shadow lines not only create visual interest in the immediate moment, but they also change depending on the intensity and location of the light source.

Of course, mouldings aren't the only way to accomplish this effect. In the case of early period styles, it was also done with elaborate carving. Some styles achieved this effect through neither carving nor mouldings. Greene & Greene did it with exposed joinery; proud through-tenons, pillowed ebony splines and plugs, inset drawer fronts, faux strapping, breadboard ends thicker than the top to which they are attached... The list goes on. Even so-called modern styles, decidedly spartan in their lack of ornamentation, will still make use of an overhanging top or textured surfaces. This is all due to the positive effect of shadow lines produced by projection.



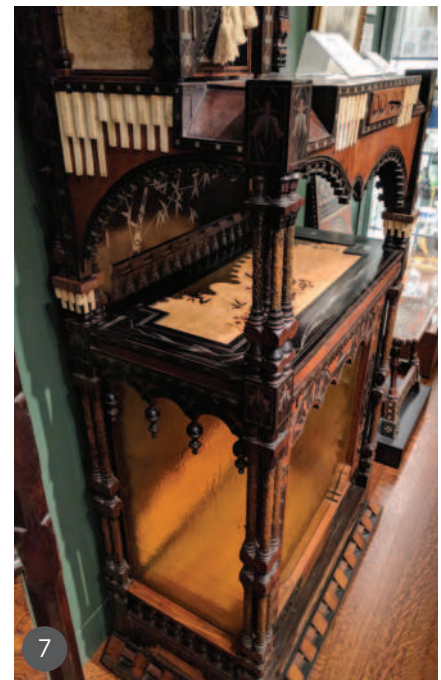
PHOTOGRAPH BY DANIJEL DJUKOVIC



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POSITIONING

Positioning concerns the alignment of decorative elements within a design. Simply put, in good design, things tend to line up with other things.

In a chest of drawers, the pulls tend to align both horizontally and vertically. The rails and stiles of adjacent doors do the same. The waterfall mitre joint of a slab coffee table is typically done such that the grain lines are continuous across the outside of the joint.



6 & 7 Positioning – Italian furniture designer Carlo Bugatti made bold use of asymmetry in many of his designs, including this cabinet from 1900 (on display at the Kirkland Museum, Denver, USA), which also makes liberal use of projection and a rich multimedia materials palette

8 Preservation – every furniture style is in part defined by the preservation of design details across different individual pieces. Few are as instantly recognisable as the sweeping organic curves of Art Nouveau, as exemplified by this Louis Majorelle designed bed (circa 1900) at the Kirkland Museum in Denver. What is Art Nouveau without these features?

9 Projection – a floating top, proud edge beading, breadboard ends thicker than the top to which they're attached, legs that stand proud of the case, and face-mounted drawer pulls in front of circular recesses. All of these are examples of projection that create shadow lines and add visual interest to the piece

The alignment of design elements can be radial or asymmetric as well. My wall mirror contains examples of both. It is an asymmetric design, and any asymmetric design element in it aligns left. The inspiration for this came from the work of Italian designer Carlo Bugatti (1856–1940), who made dramatic use of asymmetry in some of his chair backs, wall treatments and his Fire Screen of 1900. There is also radial alignment originating from the centre of the stylised flower head on the door of my mirror. The door handle and drawer pulls align with it vertically and the row of double, copper columns across the upper face of the mirror align with it horizontally. You may also notice radial alignment in the fluting on a column or originating from the centerpoint of a carved bowl.

PRESERVATION

Preservation concerns the use of decorative themes that repeat themselves within a given individual design and across a given style. There is also a sense in which preservation is closely related to positioning and proportion given that all of these can be employed to establish repetitive themes. On the wall mirror, you'll notice several small design elements that repeat themselves across the piece. Among them are:

- Circular elements in copper plate or infilled copper tubing
- ¼in columns in copper
- Horseshoe arches/semi-circles
- Dentil style mouldings
- Ebonised walnut outlines and cockbeading

These design elements can each be small in and of themselves but when repeated across a piece, they can make a big statement. When repeated across several pieces they even make the style. As Charles Eames said, 'The details are not the details. They make the design.' Who can imagine Queen Anne furniture without the cabriole leg, or Federal without the string inlay? What would Shaker style be without turned wooden mushroom knobs, or Art Nouveau without its sweeping asymmetric curves?

Preserving the details is what preserves the style, and hopefully, you now have some useful pointers on how to create a style of your own.



PHOTOGRAPH BY DANIJEL DJUKOVIC



10 Positioning – Carlo Bugatti, who designed this cabinet circa 1895, was a master of positioning. While this example is asymmetric in its overall form, the lower doors line up horizontally across the whole of the piece. The offset dentil mouldings span the double doors on the right side. The stars that line the horseshoe arch on the lower left-hand door align radially from a virtual centre point. The grain in all of the horseshoe arches aligns vertically, as do all of the turnings. Some of Bugatti's more adventurous designs even make use of diagonal alignment





ACCIDENT BY DESIGN

A SERIES OF HAPPY ACCIDENTS HAVE HELPED MAKE **ANTONY ELLIOT'S** FLEDGLING FURNITURE BUSINESS TRULY UNIQUE

A binned piece of wood that ended up as a Guy Martin-branded keyring, a template routing incident that ended up making a stool much better and a resin experiment that created a striking honeycomb effect are just some of the unexpected influences that have helped Antony Elliot of Elliot Design craft a niche for himself as a furniture maker.

Antony is based in Wakefield, Yorkshire, and has been making things for as long as he can remember. His dad, an engineer on cruise liners, 'always did everything around the house', and was a hobbyist woodturner who made bobbins for his lacemaker mum. His grandad, an engineer, made dolls' houses after he retired. 'You could say it runs in the family,' says Antony. 'I was always allowed to play around with tools and bits of wood that were spare – I've got the scars still.'

He studied at Coventry University, gaining a Master of Design degree in consumer product design, in which he loved the model-making aspect. But after university he took a detour – a summer job in a surf and snowboard store ended up lasting 12 years, and Antony eventually became the manager there. Woodworking and making remained a hobby until 2015, when he was made redundant.

'2015 was pivotal,' he says. 'My Dad was diagnosed with terminal cancer, our first son Jed was born and I was made redundant from the retail job. I couldn't find any companies locally that could employ me doing what I wanted to do, so I decided to get on and do it myself.' He adds: 'Without wanting to sound too much like a motivational quote, it's what I wanted to do and I didn't want to spend any more of my life doing things I didn't want to do.'

Initially unsure whether he wanted to go into renovation work, woodworking, carpentry, built-in cabinet work or joinery, he did a bit of everything. 'I spent time working with a really talented local carpenter, helped a friend renovate a property in London and worked part-time at a joinery and cabinet shop, all the time learning and teaching myself how to make furniture,' he recalls. 'I've learnt massive amounts through Instagram. It's amazing the incredibly talented furniture makers who are taking the time to share their knowledge on this platform and are only a message away to offer help and advice.'

In the end, 'it was the designing and making furniture that really hit the mark, combining customer service, design, problem solving and working with my hands,' he says. He was particularly inspired by Jory Brigham's work and processes. 'Jory's style seemed similar to the ideas I had in my head, and the way he made things using a Festool Domino and other power tools made me go from being scared to produce furniture because I didn't have traditional formal training, to thinking: I think I can do that,' he says.

Antony used his redundancy money to invest in good tools and he started to make some small but well-formed speculative pieces. 'I made a lot of lamps, coat hooks and home items, I was able to do this with small offcuts of hardwood that I could buy inexpensively,' he says. 'I was introduced to a friend of a friend who has a mid-century furniture store, Two Columbia Road, in Shoreditch, London. He agreed to have anything I made speculatively in the shop on a sale or return basis. So I have a selection of my work there, which has led to quite a few commissions.'

A single-car garage has been converted into a small home workshop and he has worked there for six years, but has a hammer combination machine at another location, so he has had to work between the two places. This year he plans to build a new, bigger workshop. 'I am incredibly excited about it, as I will be able to have everything in one place, and it will make a great creative space to work from.' Being workshop-based has allowed him to be flexible and spend plenty of time with his partner and two sons, aged seven and three-and-a-half. 'I don't want to miss them growing up, especially while they still actually want to spend time hanging out,' he says. 'I still see myself in the early stages of my furniture-making career and feel very humbled to have been invited to share pages of this magazine with some incredible craftspeople,' he adds.

UNEXPECTED OPPORTUNITIES

Antony leans towards a modern Scandi style, using beautiful materials and keeping pieces simple and elegant. 'I like chamfers, sharp lines and adding in nice details,' he says. Inspiration comes from all around, especially other furniture and architecture. 'I'm a bit of a magpie for details, I see things and store them away in my brain and try to develop and change them and join the dots between them,' he says.

But accidents have also played a part in some of his most popular pieces, such as the Jed reading stool he built for his son. 'I wanted it to be something nice that we could have around the house that wasn't brightly-coloured plastic. I also wanted it to be something that he could keep and maybe pass on to his children one day,' Antony explains. 'He still uses it now, although more as a step stool than a seat. What seems to have become a frequent feature to most of my work is a mitred tapered leg with a 30-degree bevel. It came about by accident – I never planned to have a bevel on there – but when I was template-routing the legs something

went wrong, and the bit dug right into the leg. I put a really big bevel on to try and machine away the error, and it turned out that it looked much better. There is only a tiny nick still left in the original – it's a nice reminder.'

One of Antony's signature styles is honeycomb resin details. He started experimenting with the technique after seeing a picture of light-reactive resin poured over an aluminium honeycomb mesh, but at first was mainly unsuccessful. 'One of the first things I did with resin was to use a fast hardener and a deepish pour, and I ended up with a massive exothermic reaction with me running out of the workshop with a smoking coffee table top,' he says.

'It was by accident really that I got it right: I made a set of coat hooks and cut the edge off the resin on an angle, and I noticed it created a really interesting pattern and effect. The honeycomb comes as a compressed sheet, so you have to stretch it out and it's really hard to get the honeycombs uniform from the top. But this actually works in its favour, as if the honeycomb isn't uniform, neither are the patterns it creates. Cutting it on an angle really exaggerates it and makes the patterns. Because the tinted resin is in different thicknesses from the honeycomb structure it creates varying levels of translucency.'

Honeycomb resin is just one of the intriguing surface features Antony uses in his work, and he often presents wood and wood grain in a striking way. 'I get a bit obsessive about continuation of grain lines and am always careful to try and keep timber from the same boards together and to fold the grain around any mitres,' he explains. 'It's these little details that I love and that you never get from a mass-produced item. I think it's a case that you don't especially notice them, but you do notice if they aren't done that way.'

For any readers who are keen to try out honeycomb resin, Antony simply advises them to buy some and have a

go. 'There are hundreds of videos on pouring resin online. The best way I have found of cutting the honeycomb is by snipping the cells individually, which is incredibly laborious, then using a translucent pigment and cutting the edge on an angle. I'm more than happy to give anyone advice if they contact me through social media.' But he adds: 'I'm not a fan of the massive epoxy poured tables. When I started experimenting with it, it was quite a new thing and it was hard to find information on using it, but now I think its use is over-saturated. I like to keep it to a minimum for little details.'

Another design came about when Antony spotted an offcut from one of his resin coat hooks in the bin. 'It seemed too interesting to throw away, so I put it on my Instagram and asked for suggestions for what to do with it,' he says. Dan Small from ethically-managed woodworking business Dust & Splinters suggested he make keyrings, so Antony made half a dozen from the offcut and put them on Instagram. 'I was going to give them away, but I asked if anyone would be interested in buying one and they had all gone in an hour,' Antony recalls. 'Every time I made a set of the coat hooks I made a set of keyrings, until it got to the point where people were asking for them, so I started making them in larger batches, and I keep a reasonably sized back stock so I always have some for sale.'

Then he spotted a call from the TV presenter and former motorcycle racer Guy Martin's official shop, guymartinproper.com, which aims to support high quality British-made products. The online store asked anyone who had been making things in their sheds to submit them for possible sale on the site. Antony recalls: 'I sent them an email, and after a positive response I sent them a couple of sample keyrings. They loved them and asked if I could do black and yellow ones, which are Guy's racing colours, along with a few other colour combinations, and if I could brand them with Guy's logo too. I ended up having them laser-engraved.'

I like chamfers, sharp lines and adding in nice details. I'm a bit of a magpie for details, I see things and store them away in my brain and try to develop and change them and join the dots between them.



PHOTOGRAPHS UNLESS STATED BY ANTONY ELLIOT



PIECES AND PROJECTS

Antony uses a combination of power and hand tools for his work. 'I think it's a romantic notion that everything is done with hand tools. For me it's unrealistic,' he says. 'I don't have the skills or the time budget to be able to do this. I work a lot using templates and bearing-guided router bits.' His favourite tool is his Lie-Nielsen No.4 bronze smoothing plane. 'Every board I glue up has the edges jointed with this plane,' he says. 'I also like to make sure that I have really good quality measuring and marking tools that are really accurate, for layout and machine set-up.'

When he's designing he can work in a number of different ways, from sketching in his notebook to holding up bits of wood and trying to figure things out on the fly. 'Most of the time I start by drawing a cube in the Rhino 3D CAD program to the rough dimensions the piece will be, then start developing the idea in CAD,' he adds. 'I will produce some simple images for the client to look at, and when I actually start making I make changes as I see necessary.'

He loves working with American black walnut, oak and ash, and his favourite woods are walnut and sycamore. 'There

is something really luxurious about dark woods like walnut, and it's beautiful to work with. Hand-planing a piece of sycamore is hard to beat.' Apart from wood and resin he has worked a lot with with Richlite, a hard material produced from recycled paper, which he first saw used as architectural cladding. 'It's a really nice contrast when used next to natural timber. I'm starting to use brass a bit more now for little details, and recently used leather on a piece,' he adds.

Rubio Monocoat Hard Wax Oil is his favourite finish. 'I like that it's a one-coat system, it's really easy and forgiving to apply,' he says. 'They do a great range of different-coloured oils so the variety of finishes you can achieve is massive. I also like that after application you buff it almost dry, so especially having a small workshop, I don't have to worry about having a separate finishing room to avoid dust contamination. The durability on pieces I have at home has been fantastic too.'

One of his favourite ever projects was his PR bedside tables, made of oak with little resin details (pictured on page 44). The first set he made were finished in a grey, tannin-reactive precolour, and

he wanted to see the set with a more natural finish. 'The second pair allowed me to tweak the design and techniques for making it, and to finish in a natural oil,' he says. 'As a single piece it's a great representation of lots of elements of my work: beautiful timber grain; wrapped top box all from the same board – a large board thanks to Duffield timber; a chamfered front; floating tapered and faceted legs with the honeycomb resin detail on top, and walnut splines in oak mitred drawer boxes.'

The most challenging piece has been the DL Table (left). 'While it was technically not really challenging, getting the design and finish right was hard,' Antony explains. 'The brief was for a small dining table or desk to fit in a galley, plain English Shaker-style kitchen. It had to be certain dimensions and to be used with two antique Mouseman chairs, but also to have an element of my own style. The client also wanted the finish to match the chairs, but I only had photos of them and was working from dimensions I got from the Robert Thompson website [which sells Mouseman chairs]. I had to think of the style with a Venn diagram: plain English, Mouseman and Elliot Design.'



He adds: 'My favourite detail is the shallow hidden drawer in the apron with the textured front. It has just enough space to keep a device, pens, notebooks and so on. Getting the finish right was so tricky, as the client wanted me to finish it rather than have it polished by a specialist. I tried lots of different stains and coloured oils. Rubio Monocoat helped me by doing some samples with their precolours and top oils. It was such a relief to see it in situ – the finish was a great match and everything worked really well together.'

Antony works mainly on commission, but likes to work on speculative pieces too. 'With some of the pieces I have had multiple orders, and I like that I can just crack on and make them – I have the templates, I've ironed out all the design and construction details and I have a book that's like a build diary and instruction manual for how I make things that I can refer back to. It's low stress. I still love making the Jed stools, I've lost count of how many I've made now.

'However, making the same things all the time would become dull. Commissions push me and make my brain work, sometimes too much. Thinking through how to do something often leads to sleepless nights. I would really like to be able to do small batches of certain items alongside commissions in the future.'

The Covid-19 pandemic and lockdowns had a significant impact on Antony's business. 'My other half is a manager at our local hospital, so when the pandemic hit I put my work on the back burner to be able to look after Jed and Seth and do the home schooling while Gemma was working flat out along with the rest of the NHS,' he says. 'The timber yards were all shut so I couldn't get materials. I was in the final stages of making a pair of PR bedside tables. I managed to get them done between the home schooling, but had to wait quite a while until I could deliver them. Since material prices have gone up they are

just going to stay up, I would be very surprised if prices came down.'

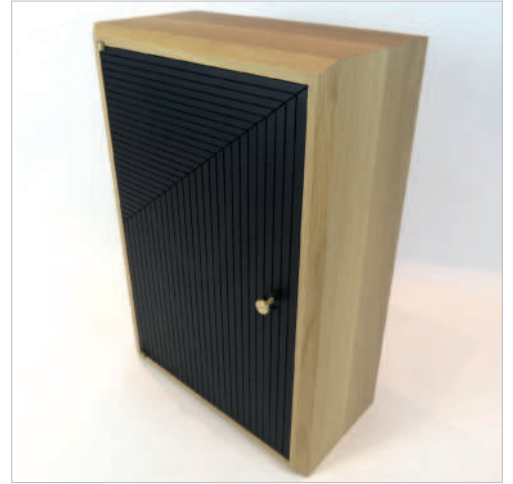
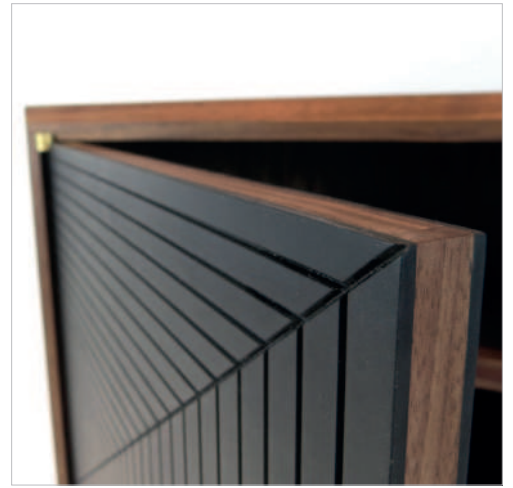
Looking forward, once he has set up his new workshop he hopes to really start pushing his skills. 'There are quite a few techniques I want to try and I would like to start incorporating more traditional joinery while still keeping my own style,' he says. 'I have some ideas I want to develop using brass accents. With a bigger workshop I would like to start doing some bigger pieces, I've got some ideas for dining tables I would like to explore when the right client comes along.' When he's not working Antony spends much of his time with his family, growing fruit and veg on his allotment and he loves watching live music. 'I also love mountain biking and bouldering, although unfortunately these two activities have decreased since having children!'

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PHOTOGRAPH BY SIMON PHILPOTT



PREPARE FOR FIRST AID BEFORE YOU NEED IT

GEOFFREY LAYCOCK DISCUSSES WORKSHOP MISHAPS AND ACCIDENTS

We all try not to have injuries when in the workshop, but it's inevitable that mishaps will happen from time to time. Usually these accidents are not too serious, but they are annoying and can have the potential to become more serious if they're not taken care of. Splinters are probably the most common, along with cuts to hands and 'stuff' getting in an eye. It is wise to spend a little time and money at your local pharmacist purchasing some basic items that can ensure you keep on working and reduce the risk of matters getting worse.

Here's an example of what can happen, and did to me: a simple splinter. I was working with pau amarello and got a small splinter in a finger. I couldn't get all the splinter out and ignored it, thinking it would emerge at some future time. Just 12 hours later I had a hard, red, swollen area and an allergic reaction where the splinter resided. So, I then had to resort to a scalpel blade 10A to cut the skin above the offending sliver – and learned a valuable lesson.

FIRST AID KIT ESSENTIALS

You can buy complete first aid kits, including some with contents specifically intended for compliance with legal requirements to have at work. Buy one if you wish, but many of the contents may sit for years with little practical value to you. In my opinion, it's better to get a sealable plastic box and stock it with things you will use, plus a few 'just-in-case' items.

This is not intended to be a complete list, and it is up to you what to add. Some items may have frequent use, others are only for that more serious time we all hope never happens. It's important to seek medical advice if you have any doubts about a wound.

- Tweezers with a sharp point – for removing those annoying splinters
- Scalpel blade number 10A or 11P – both have a sharp point and straight cutting edge. These blades are intended to be used edge-side up to push into

skin, then lift to create an incision. Use when a splinter is deep and tweezers won't reach

- Spray wound cleanser – obvious use, plus spray on tweezers or blades before use
- Antiseptic wound wipes
- Wound closure strips – often called SteriStrips, which is a brand name
- A range of waterproof elastic plasters
- Elastic adhesive tape/microporous tape – to go over plasters and keep them in place
- Spray plaster – good for little nicks in places a conventional plaster won't work
- Sterile wound dressing pad, medium size – just in case you have a big one
- Wide adhesive bandage – to use with a sterile wound dressing
- Small pair of scissors
- Bottle of eyewash, unless you have a tap you can get your head under
- Bottle of surgical spirit for cleaning skin, removing plaster adhesive
- A suitable box to keep it all in.

SAFETY PRECAUTIONS

- Check the toxic qualities of wood varieties that you're working with
- Always ensure you use appropriate PPE equipment
- Finally, check your tetanus protection is up to date – talk to your GP practice nurse. Go do it now.



PHOTOGRAPH BY GEOFFREY LAYCOCK

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MID-CENTURY STYLE HIGH CHAIR

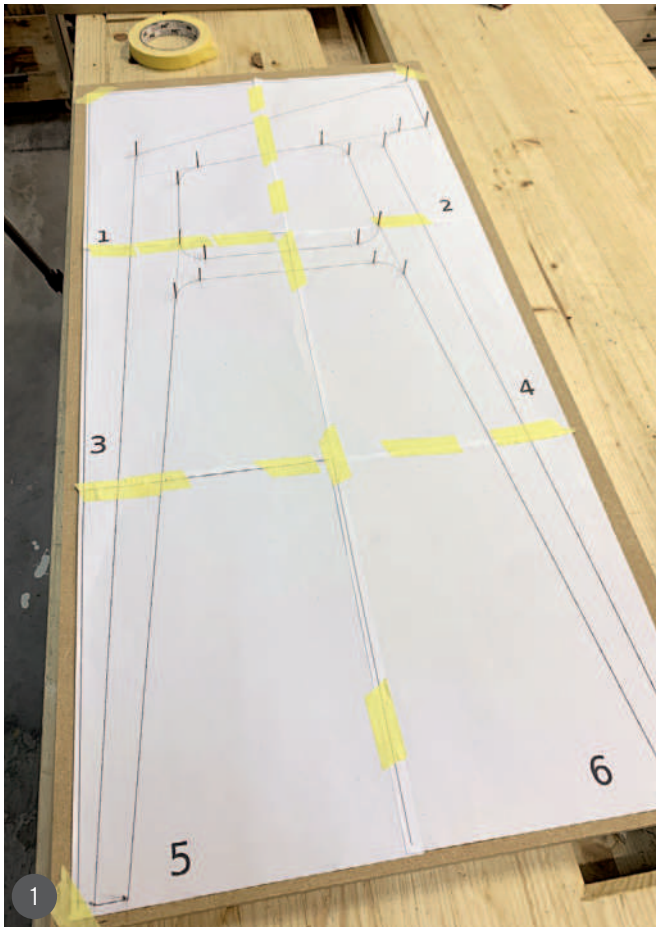
NEW FATHER **GIUSEPPE CONTE** MAKES HIS SON A HIGH CHAIR
FROM AMERICAN WALNUT

This project combines two very important aspects of my life: the birth of my son Francesco and my passion for carpentry, in particular for walnut wood and the mid-century style. The design of the 1940s to 1960s still influences makers today, and in my opinion, the mid-century style in furniture is expressed in an exemplary way by the American carpenter and designer Jory Brigham. I have been following Jory's work closely for several years and it has inspired several of my projects. I took inspiration from his chairs to design and create this high chair in American walnut for my son, using a classic commercial high chair as a reference for the general dimensions.

MAKING THE 'MOTHER' TEMPLATE

The high chair consists of two side frames joined together by the seat surface, the backrest and three crosspieces which give it stability. First, I designed and drew the side elevation on SketchUp and then printed it in 1:1 scale. Not having a plotter for large prints available, I divided the drawing over various numbered sheets, which I then joined and fixed to a 19mm-thick MDF panel, from which I obtained a sample that I called the 'mother template'. This served me as the main reference for all the subsequent processes. For this reason, as you will see in the next paragraph, I used it to obtain a second shape to be cut in two points to create the three elements that form each of the frames.





PHOTOGRAPHS BY GIUSEPPE CONTE/LEGNO

- 1 The project printed and attached to the panel. Pegs are positioned at key tangent points between curves and straight segments
- 2 Once the pegs and sheets are removed, the shape can be redrawn by joining the holes
- 3 The combination of circular saw and jigsaw makes it possible to obtain any shape
- 4 The circular saw with the guide rail allows straight cuts while the jigsaw is ideal for curved ones and for roughing areas with a closed perimeter
- 5 & 6 Using corrected strips (the scraps from the previous process) it is possible, after having positioned them flush with the marks that determine the shape, to make all the straight cuts that cannot be made with the plunge circular saw using a trimmer
- 7 Smoothing the curves is achieved by taking advantage of the shape of the pillar drill and a self-made abrasive cylinder and coarse-grained paper
- 8 The junction points between straight and curved lines must be finished manually to give continuity to the entire edge of the template, without any breaks. This step is of fundamental importance and must be performed with utmost care and attention to avoid subsequent errors
- 9 The daughter template is made after screwing the first template on to a sheet of plywood, then making the roughing cuts with a bandsaw and jigsaw
- 10 Leaving little waste, it is possible to use a simple trimmer for final adjustments

For the arcs of circles tangent to the straight lines I used a simple yoghurt jar that had exactly the radius I needed. I followed the curve with the pencil, bringing it back to the panel in the points where I needed it. Subsequently, with the plunge circular saw equipped with its own aluminium guide, I cut the panel following the straight lines of the drawing. With the jigsaw, on which I mounted a very thin blade so that I could move easily, I roughed out the curves while maintaining the same margin as above. In this case it needed to stay wide as the cut made with this tool is never clean.

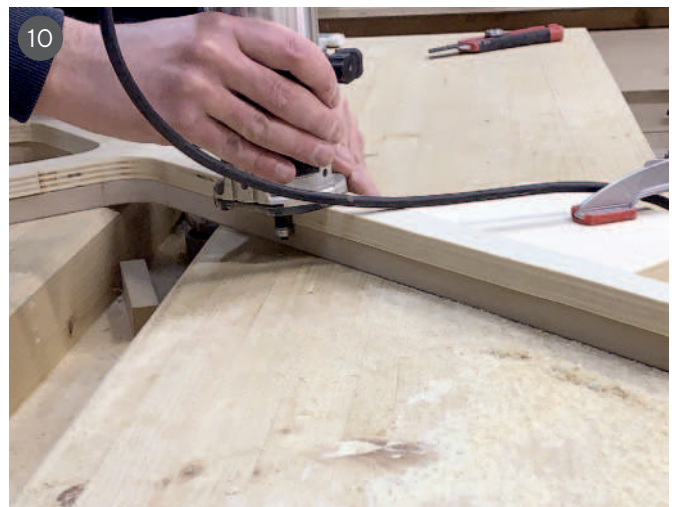
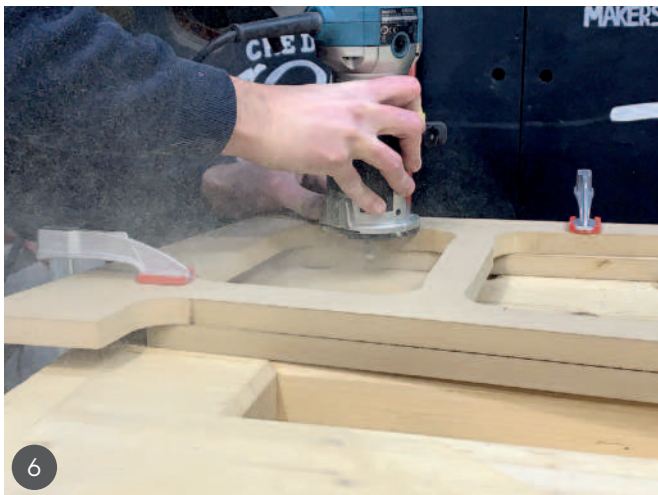
To finish the straight cuts I used the router table on which I mounted a straightedge cutter equipped with a copy bearing and a straight strip to follow as a stop. This process is used to create a consistent and regular outline without breaks that would compromise the final result of the work; the template must

be as precise as possible since it will serve as a reference for all subsequent machining.

On the curved portions made with the alternative section I used a self-built sander connected to the spindle of the pillar drill which allowed me to easily finish the elements with a concave curvature.

MAKING THE 'DAUGHTER' TEMPLATE

Once the first template was completed, I made a second one from poplar plywood. This one is intended for splitting to create the necessary shapes for making the solid pieces. In this way, an integral MDF mother template and a multilayer one are made, divided into the different pieces that will make up the two side support frames of the high chair. The first template can be used as a reference until the end of the project and the





11 The final result: note the points where the screws that fix the MDF template to the multilayer piece have been inserted. When the jigs are thin, they can flex underneath with the lateral thrust of the bearing **12** To cut the daughter template use a ruler to extend the straight lines to mark where to detach the crosspieces and armrests from the rest of the structure. In this way, the four pieces that form each of the two side frames are obtained **13** To reduce waste to a minimum, the cut was made with the bandsaw, using a small panel with parallel sides screwed flush with the cutting line and pushed against the parallel guide. Note: guards removed for picture clarity only **14** With the templates, it's easier to predict the amount of wood you'll need before cutting the rough axis. Working with shorter pieces allows you to save material in length and, above all, in thickness. **15** The final marking is carried out on the pieces **16** By working with the individual frame elements, all the rough cuts can be done with the bandsaw. Note how the shape has been positioned on the material in order to avoid a large knot that interrupts the continuity of the grain **17 & 18** All surfaces that will be joined must be cut with extreme precision. A sled is used that runs flush with the blade on the edge of which the pieces, with the marks to follow, are fixed. Toggle clamps hold the material in place. Note: guards removed for picture clarity only **19** This Bessey clamp has articulated pads covered with non-slip rubber so it can be positioned on surfaces that aren't parallel to each other. Alternatively, you would need to prepare at least one wedge at the right angle and fix it to the clamp's pad with adhesive tape to prevent it from shifting **20** The mother template is fixed to the solid wood frames with double-sided adhesive tape and the cuts are made on the bench using the copy cutter

second serves as a template for making the solid pieces. The two frames are each made up of four sections joined together by junctions: two legs, a crosspiece and an upper crosspiece which will also act as a connection between the frame and the back of the high chair. Creating the second template, already having the first, was quite simple: it was roughed out with a bandsaw and finished with a copy cutter.

At this point I decided on the position of the joints and, subsequently, the size and shape of the pieces that would make up the side profiles of the high chair. With a pencil and ruler I marked the cuts to be made and the position of the joints, and then cut the template with the bandsaw.

MAKING THE SIDE FRAMES

Having made the samples of every single piece, I finally moved on to processing the solid wood. I started from a 30mm-thick American walnut board and, placing the various multilayer templates above it, I marked the sections with a white pencil. I tried to make the best use of the material while respecting the direction of the grain.

Then I sectioned the board with the cutter to create three sections to work with. I planed the boards flush and thick to make the surfaces uniformly smooth and perfectly squared with each other and also removing any imperfections. At this point, with the help of the parts of the daughter template, I drew the

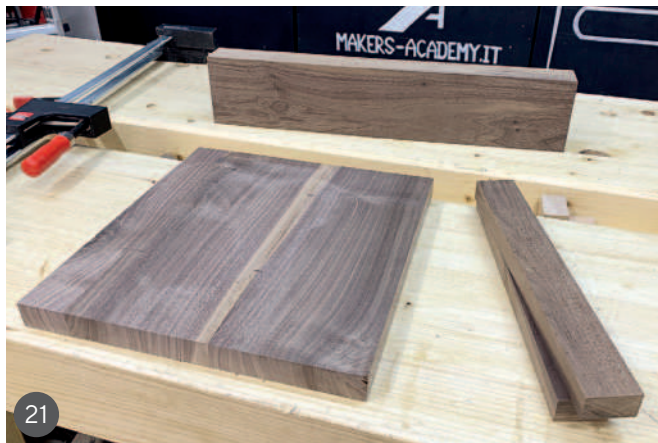
shapes of the various pieces, placing them directly on the boards and taking care to avoid the most obvious knots that would have compromised the structure. With the bandsaw I roughly cut out all the shapes slightly oversize in order to have the extra wood to finish to size with the bearing-guided cutter.

Since the single side is composed of two legs plus the upper crosspiece, which acts as a connection between the two, the cut of the contact points had to be as precise as possible in order to preserve the design and maintain the balance of the entire structure. This is why I decided to build myself a small template that allowed me to make the cut on the tablesaw.

With the help of the mother jig resting on the workbench, I simulated the final assembly of a single side and, with a fine-tipped felt-tip pen, I marked the junction points in which to drill for the insertion of domino-like tiles. Not having the appropriate milling tool for this type of joint, I used a drill and router to plunge and cut the mortises and created bevels for the raised tenons.

After making the joints, I was able to proceed with the final gluing of the sides of the high chair. Obviously, I first did a dry fit test to verify that everything worked and simulate every aspect of the joints and with everything necessary at hand. To clamp the frame in place during the glue drying time I used clamps with pivoting jaws that follow the inclination of the surface they press on – perfect for this high chair design where lines are almost never parallel to each other.





21 The seat, lower strips and backrest are the last pieces to be prepared. The seat is made by joining several strips; the backrest is thicker because it needs to be shaped. They all serve as a link between the two side frames **22 & 23** The backrest and armrests are joined at 45°. While for the former there are no problems, the latter require a support panel that allows them to be passed on the bench top so that the cut takes place securely **24 & 25** Shaping the backrest is done by marking the two parallel lines on the front and back and then cutting with a bandsaw. The milling for the insertion of the biscuits must obviously be performed before the curved cuts **26** The backrest was on a different axis to the armrests ... **27 & 28** ... this problem was solved by transferring the shape from one piece to another and planing the excess away **29-31** The system for cutting the the biscuits between the sides and seat is the same as that used for dividing panels inside a piece of furniture. The seat, locked on the side, is cut horizontally and, without moving it, acts as a stop for the counter cuts on the inside of the side **32** The holes for joining the frames and crosspieces were made with a template with guide holes on the ends of the pieces. To ensure the position inside the frames, an alignment stop has been prepared. The transfer of the marks was done with regular pin markers and drilling on the frames with the drill press

Finally, I moved on to finishing the shape. To do this, I positioned the mother template (the whole one) on the workbench surface, and, with double-sided tape, glued the newly created solid wood frame on to it, taking care to align them perfectly. Then on the router table, with a cutter with interchangeable knives and copying bearing, I finished the outline of the frame by simply following that of the template. After correcting a few small defects, I sanded both frames with a belt sander.

MAKING THE SEAT

The two side frames are joined together by the seat surface, the transverse pegs and the backrest, which are also made entirely of solid American walnut. The seat panel was created from three boards joined together with the Lamello joint system and the respective horizontal milling machine. I framed the seat and,

from the gap obtained, I obtained the two crosspieces. As for the back, I used a board with a greater thickness in order to obtain the anatomical shape without having to bend the wood. So, first I cut it to size, adapting it to the width of the seat and the height of the armrests, then I made the 45° cuts on the two heads. The same 45° cut was made on the rear ends of the armrests.

After setting up the joints and having made the necessary dry assembly tests, I moved on to shaping the backrest. To obtain the two parallel curves I inserted a small nail in the centre of the upper edge of the table which served as a pivot on which to flex a steel ruler; holding the ruler in place, I marked the curves with the fine-tipped pen. Then I followed the marks with the bandsaw to create the curved backrest. This operation requires concentration both in terms of cutting precision and operator safety as you work with your hands fairly close to the bandsaw blade.





From a further dry test I realised there was a small gap between the sides and the back which caused the edges of the two side frames to protrude; to solve the problem I first marked with the nib the portions to be chamfered while the high chair was still assembled and then, after having disassembled it, I used the plane to remove the excess material.

The junction between seat and sides was also made with the biscuit joiner. For the crosspieces I used a double 8mm diameter dowel for each piece; all this was possible thanks to a simple template created specifically for this purpose and to the markers for dowels which help to keep the centre of the holes.

THE ERGONOMIC SEAT

Creating a comfortable and welcoming seat requires literally carving out wood from the seat panel. First, I drew the area, with pencil, on the seat face and on the front edge in order to have references for all three dimensions. I also marked an internal concentric reference so as to work gradually. Next, I drilled some reference holes of different depths, according to the material to be removed in each area.

I removed the wood using an angle grinder equipped with a special disc to hollow out this type of material, and proceeding with passes parallel to the direction of the grain. In this way I obtained a very rough, but fairly regular surface, which I then sanded with a random orbital starting with a P80 grit for roughing.

Before moving on to the final gluing, I made some essential finishing touches. Since the high chair will be used by a child

I had to smooth all the edges so that they would not be sharp or dangerous. I mounted a roundover cutter with a bearing on the trimmer and removed all the edges from each piece. Finally, I sanded everything with a random orbital sander and 120-, 180- and 240-grit abrasives to obtain perfectly smooth and regular surfaces.

GLUE-UP AND FINISHING

The gluing phase of this project was perhaps the one that required the most preparation. So, in addition to the components of the project, I equipped myself with glue, clamps, biscuits, pins, soaked wipes and a hammer. Furthermore, each movement had to be planned in advance for a good workflow; for example, the more stable parts must first be joined together, which will then allow you to move safely on to all the other elements to be glued.

In this case I placed the first side on the work surface and went to glue the crosspieces. Then I moved on to assembling the seat with the biscuit joining system and inserting the glue in the grooves and on the gluing surfaces of both the top and the frame previously positioned on the bench. Finally, after having also mounted the second side frame, I glued the backrest.

Placing the high chair in a vertical position, I positioned the clamps and, gradually removed the excess glue with the soaked wipes. After 24 hours the glue was dry, and I passed a new coat of 220-grit abrasive over all the surfaces to remove the 'hair' of the wood grain that had risen due to the humidity released by the wipes.

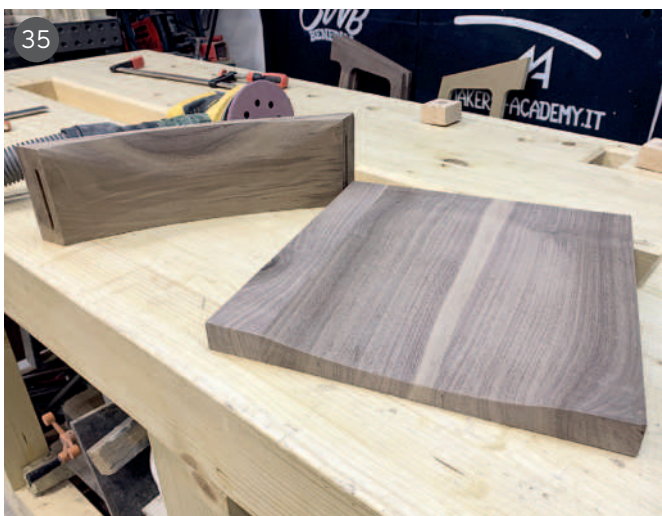
After cleaning and removing all the dust, I moved on to a finish with Danish oil which, once dried, in addition to highlighting the grain of the walnut wood, is an inert product and perfect for protecting and enhancing this type of project. Using a cloth, I passed the oil all over the high chair, removing the excess. I repeated this operation for three coats, 24 hours apart so as to perfectly waterproof the wood and give it a consistent and resilient finish.

CONCLUSIONS OF A DAD

For me this high chair is certainly one of the highest quality projects I have made, both because of the type of material used and the quantity of techniques and tools used.

Of course, my motivation to make this project was my very special customer, so I want to tell all new parents that with the right motivation, and without resorting to stratospheric means, anything can be done!

33 The part of the seat to be carved out was highlighted with contour lines. The depth limit of the carving was set with a series of holes at calibrated depth **34 & 35** The angle grinder and rotary rasp are great if you need to remove a lot of material. Using a circular motion, however, can drag the cut out of trajectory, so it is good to practise on scrap pieces first **36** The roundovers are cut with the trimmer and a concave cutter equipped with a copying bearing. Without these the sharp edges, in addition to being potentially dangerous for a child, are also fragile and could be easily damaged **37** Deciding when to clean off excess glue is an old dilemma: many furniture makers prefer to cut off the excess glue once it's dry, but others prefer to wipe it off before it dries. Wiping the glue off with a damp cloth may dilute it, which can penetrate the grain and also prevent stains penetrating, but cutting excess glue off when it is dry may also have the same effect and leave areas of grain that are impermeable **38** For assembly, the clamps must be carefully arranged to prevent the angled contact surfaces from sliding on each other. The best strategy is to tighten them in sequence a little at a time, making sure that all the pieces are in the correct position immediately. Also pay attention to the weight of the clamps, which could cause the piece to lose its balance and fall **39** Despite popular belief, oil finishes have a good protective capability and are waterproof. But above all, they are easy to freshen up. When the high chair begins to suffer from baby food and food battles, a damp sponge, a wipe with fine steel wool and a new coat of oil will suffice



TRY, TRY AGAIN

FROM UNSOLD PIECES TO BROKEN JOINTS, 'FAILURE' IS SOMETHING THAT ALL FURNITURE MAKERS EXPERIENCE. HOWEVER, AS **CAROLINE PATTENDEN** FINDS, FAILURE CAN BE THE KEY TO SUCCESS



If risk is the down payment for success, then failure is a series of direct debits. It's as simple (and as complex) as that. In order to succeed, you will most likely fail at various points along the way. No, it's not pleasant and no, it doesn't turn you into an enlightened being. At times it's gruelling, discouraging and makes you want to give up, which you might, but what it does offer you is a series of valuable lessons. Knowing why you failed allows you to make adjustments to avoid repeating those same mistakes. You'll make different ones instead, but that's just part of the process.

SECRET OF SUCCESS

Successful people know and have experienced failure close-up. There'll always be someone who walked into their dream job, married their ideal partner or achieved sporting greatness by sheer luck, but that's not the experience in most success stories. Unfortunately, that's a prevailing fallacy pervading western culture through reality-TV shows endorsing an: 'If you can dream it, you can be it' mentality.

STRENGTH OF CHARACTER

In fact, as many self-help enthusiasts will attest, it's grit and determination in the face of failure that propels you towards success. One such advocate of this message is author and neuro-linguistic programming (NLP) coach Rebecca Lockwood. As someone who began her own business and helps female entrepreneurs unlock their potential, she's had to take her own advice plenty of times. She says: 'I follow a mindset of "there is no such thing as failure, only feedback" and the "law of requisite variety". This is part of what I teach within my NLP classes and in the darkest of times this has got me through, along with my vision and inner pull.'

The law of requisite variety, first formulated by British psychiatrist W Ross Ashby in the 1950s, in relation to organisms and systems in general, states that in order to make progress, you must have at least as many solutions at your disposal as there are possible problems in your path – a law that the resourceful furniture maker will understand. For Rebecca, the law is a reminder of the importance of changing your approach if something isn't working. If the new way doesn't work, change it again, and so on. Becoming fluid in your approach allows for experimentation and helps relieve a sense of frustration.

'It is important to have a plan but not get stuck in your way of creating and actioning it,' she says. 'Without a doubt, it will not pan out the way you first think, it never does.' She also cautions against a head-down mentality, as failure needs to be felt and acknowledged in order to move on. A healthy, rather than purely bullish approach, will mean that your inner world suffers less in the long run.

ACCEPTING FAILURE

Whether you are launching a business, retraining for your dream job or pursuing any other venture that carries with it the possibility of failure, there's a question you'll need to ask yourself: how much are you willing to pay to achieve your goal? Being accepting of failure is like having a quiver full of arrows –

they're all yours for the using. Each one is a representation of a failure that takes you one step closer to the bullseye. Sometimes, that step is a fraction of a millimetre, sometimes it's the length of a football field.

Even when progress is obvious, those failures can still hurt. But some experts suggest that learning to accept the pain of failure allows you to also accept success. An alien-sounding concept that, when unpacked, makes a lot of sense. Bryan E Robinson, journalist, psychotherapist and professor emeritus at the University of North Carolina, says the latest buzz among psychologists is to cultivate a growth mindset. This requires you to believe that failure happens for you and not to you: 'Your growth mindset makes you as willing to embrace failure when it comes, as you are to accept success when it happens. The more you accept failure, the more opportunities you have to accept success and bounce back higher than you fall.'

Failure as an opportunity, failure as merely a spent arrow or a stepping stone, reframing negative thoughts to see setbacks through a new lens, is nothing less than mental gymnastics. Is there a degree of fake it till you make it involved? Or to badly paraphrase Rudyard Kipling, can you really treat the twin imposters of triumph and disaster just the same?

In an article from the Institute of Education Advancement, author Zadra Rose Ibañez suggests you just might be able to. When we succeed, she says, the brain releases endorphins, dopamine and serotonin. This makes us keen to win again, repeat the same task for the same reward. On the other hand, failure releases cortisol, leaving us feeling stressed and unsafe.

The answer to managing these different chemical responses, surprisingly, takes you back to that Kipling quote. Rather than trying to change your brain's response to failure, the key is to retrain your brain's approach to failure and success – closing that gap, treating them the same. 'It is important to check in with yourself consistently,' says Rebecca. 'When things are harder than they should be and you are not enjoying yourself anymore, this can be an indication that it could be time to change your approach to something fresh and new. Enjoy the process and be fluid in your approach to success.'

Without success, failure is a waste of spent emotions, but without failure, success is next to impossible. Treating the two as equal impostors gives your brain a chance to bounce back, to not become incapacitated by feelings of not-good-enough. These two, like good and evil, night and day, belong together.

HOW TO BECOME MORE ACCEPTING OF FAILURE

In order to relax into acceptance of the failed attempts that are necessarily ahead, it can be useful to use an example of an achievement you're proud of. Look back at what it took to get there and write it down – itemise the price you paid to get there.

Next, write down your goals and what you think would be a fair price, or a price you're prepared to pay, to achieve them. Quantify it – how much money will you willingly invest? How many attempts are you prepared to make? How many times will you get back up and start again?



CARVED TUDOR GOTHIC PANEL

STEVE BISCO CARVES AND FUMES AN OAK PANEL IN A TUDOR STYLE

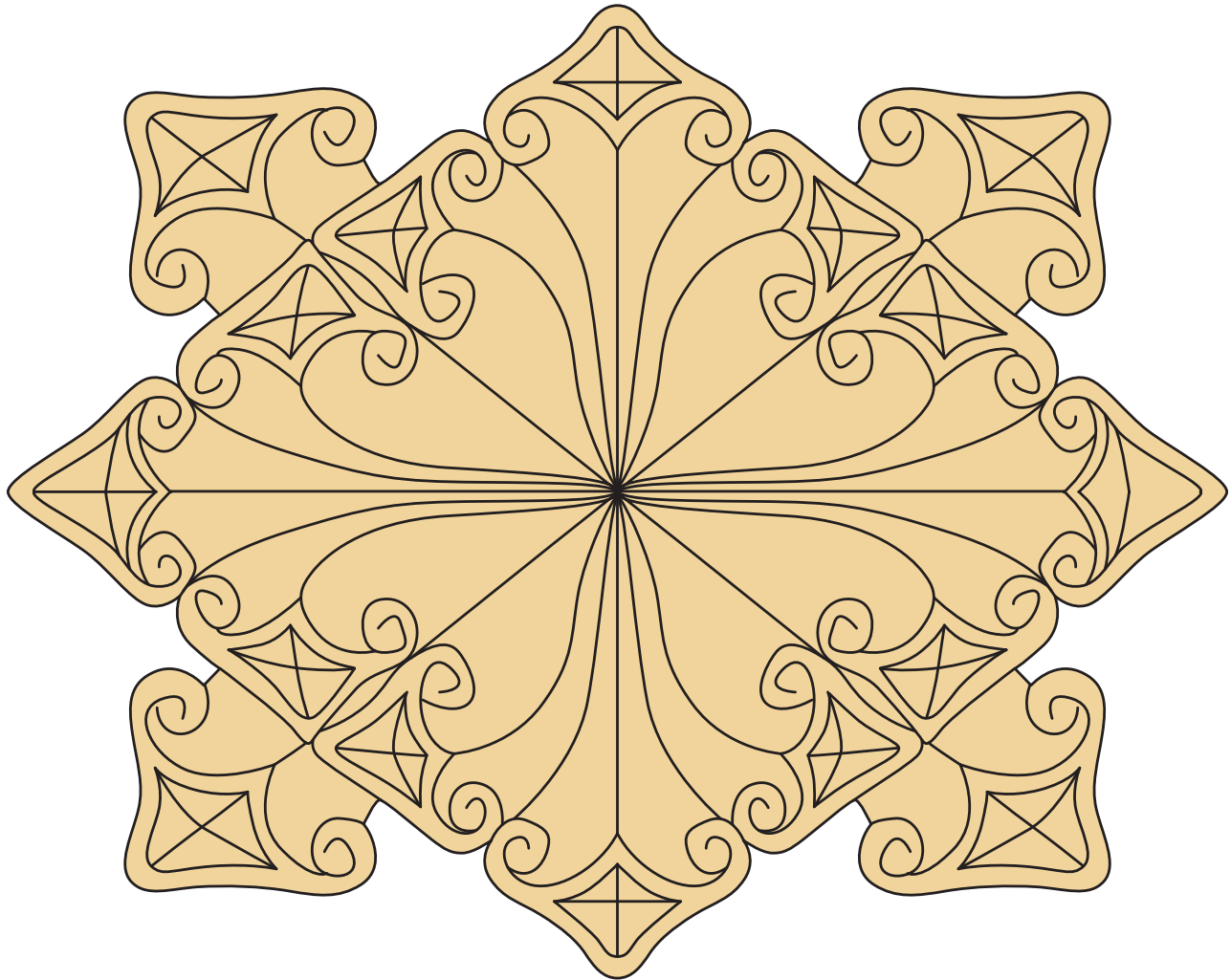
The Gothic style that was dominant from the 12th to the 16th centuries, and again in the great Victorian Gothic Revival of the 19th century, is one of the high points in the history of carved ornament. It is perennially popular with wood and stone carvers.

This authentic Gothic pattern dates from Tudor times in the 16th century, when late-medieval Gothic was starting to feel the influence of the Renaissance. It has a noble provenance – it comes from an illustration in Pugin's *Gothic Ornament*, with the description 'from the monument of Sir Nicholas Carew' in

St Mary's Church, Beddington, Surrey. Carew (1496–1539) was a Knight of the Garter, Master of the Horse, courtier and close friend of Henry VIII. He was a second cousin of Anne Boleyn but was sympathetic to Henry's first queen, Catherine of Aragon, and their daughter, Princess Mary (later Queen 'Bloody' Mary). Carew connived and plotted to bring about Anne's downfall and execution but, in true Tudor fashion, he was later himself beheaded on charges of treason. Life in the court of Henry VIII was short and dangerous.

TUDOR OAK PANELLING

Oak panelling, known as 'wainscot', was the most popular type of wall covering in Tudor times. After Henry Tudor defeated Richard III at Bosworth Field in 1485 and became King Henry VII, there was peace after 30 years of war and the gentry became wealthy by farming and commerce. They no longer wanted to live in draughty medieval castles and started to build grand houses with warmer and more comfortable rooms. Much of the panelling was plain, but those with money paid carvers to create interesting patterns on the panels. The



most popular style was the linenfold pattern, resembling folded cloth, but more complex patterns were also carved. Because they were mainly in low relief and were usually unpainted, carvers made the patterns stand out by creating light and shade with sharp ridges and V-shaped valleys.

THE DESIGN

The pattern is a lozenge with cusps radiating from the centre, placed over an oblong with its corners forming four more cusps on the sides of the lozenge. It is symmetrical on the horizontal and vertical

axes, so each quarter is a mirror image of its neighbours. It is carved in low-relief at a depth of 15mm above the background.

You can if you wish leave the carving in its new oak colour, but I have taken it back to a Tudor dark brown by fuming it with ammonia. This is a traditional way of ageing oak that is very easy to do and looks more natural than using woodstains.

YOU WILL NEED

Tools:

- No.3 fishtail gouge, 10 & 20mm
- No.3 gouge, 10mm
- No.5 gouge, 5 & 7mm

- No.8 gouge, 8mm
- No.9 gouge, 20mm
- No.9 curved gouge, 16mm
- 10mm skewed spoon gouge
- Straight V-tool
- 20mm flat chisel
- 10mm skew chisel
- 6.5mm flat chisel
- 3mm chisel

Materials:

- Oak: 250 x 310 x 38mm
- Household ammonia
- Dark wax polish

USING A MALLET

When carving in oak you will need to use a mallet most of the time, so learn good mallet technique to avoid straining your wrist and elbow (see **photo A**). Tapping gently with a mallet held near the top of the handle gives you more control over your tools when making fine cuts.

When roughing out surplus wood you will need to hit a bit harder, so hold the mallet lower down the handle and use the momentum of the swing to provide the power rather than the force of your muscles.

FUMING OAK

Oak is a pale beige colour when newly cut but it darkens to a deep brown after many years of exposure to the air. People noticed that oak beams in stables and pigsties tended to darken much quicker than oak inside houses. They figured out that the ammonia in the animals' urine was the cause, and found they could speed up the effect with refined ammonia. The Victorians loved to recreate past times, so they used this method to make new oak look ancient. Fuming with ammonia can 'age' oak at the rate of about a century an hour. But, as fuming works on the tannins found in the heartwood, make sure your oak is all heart if you want to fume it.

Sapwood – the young outer layer of wood under the bark – has no tannins and will stay pale.

In **photo B**, you can see oak heartwood (left) and sapwood (right) before fuming, while **photo C** shows the effect of fuming. See step 19 for essential safety information about working with ammonia.

PREPARATIONS

1 Get a piece of oak 250 x 310 x 38mm. If you are using green oak, select a piece that is fairly straight-grained and free of knots to reduce the risk of warping. Make a full-size copy of the pattern and get some carbon paper.

2 Some carvers like to paste a print of the drawing directly on to the wood and carve through it, but I prefer to trace the pattern using carbon paper so I can see the grain when carving. Make sure your drawing is securely taped to the wood to avoid it wandering while tracing.

3 Mark a line around the sides of the block 15mm from the front. This will be the ground level for the carving.

REMOVING THE BACKGROUND

Where parts of the original top surface of the board will remain in the finished carving, use sharp tools and take great care not to damage or lift out those parts while grounding out the background and carving the detail. Work round the edges of the pattern with a V-tool first, taking care with grain direction, to create a gap between the pattern and the surrounding area. This stop line helps prevent a splinter in the outer area running into the pattern.

4 Fix strips of wood to the bench to secure the panel. Cut around the edges of the pattern with a V-tool, taking care to work with the grain. Avoid the temptation to bost down vertically at this stage, as you may crush the wood along the edges.

5 Use deep gouges, such as a No.9, 16mm to cut away the bulk of the waste wood outside the pattern. Always keep the wings of the cutting edge above the surface so a split doesn't run off into the pattern. Be aware not only of the surface grain direction but also how it rises or falls below the surface, and take care you don't cut into the background.

6 With the bulk of the waste wood removed you can safely square up the vertical edges with careful bosting cuts using shallow gouges that fit the outlines of the pattern. The wood you pare off can now break out into the open without

crushing the grain. Try not to make stab marks in the ground surface.

7 Now work the ground surface down to the final level with a shallow gouge and a broad flat chisel. Cut a clean angle where the flat background meets the vertical pattern edges.

8 To make sure the ground is all at the right level, make a simple depth gauge. Insert a screw through a flat piece of wood so the tip projects to the required depth. Place the wood on top of the pattern surface so the screw projects down to the ground surface. If the screw scratches the surface as you move it around, carve down a bit further and try again until no more scratches are produced.

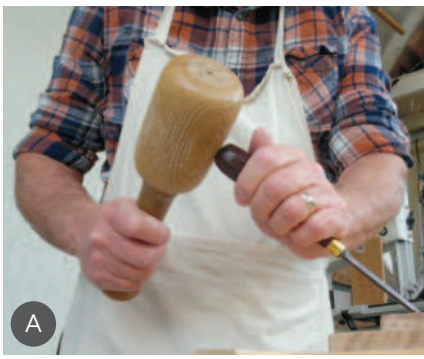
9 To get a smooth surface on the flat background, place a flat chisel in an almost vertical position and draw it towards you. This will scrape fine shavings off the surface to create a smooth even finish.

10 Finally, finish the background by planning a chamfer around the edges.

CARVING THE DETAIL

11 Start the detail carving by making a narrow hole with a spike in the central point of the pattern so you don't lose the centre as you carve down. It is important to distinguish the valleys from the ridges in the central area. If you get them wrong it will be hard to correct. Refer to the drawing and finished photos and mark the valley centre lines with a red crayon before cutting them with a V-tool.

12 Work the valleys down to a V shape, starting with the long axis of the lozenge where the V runs along the grain, then move on to the more difficult short axis that runs across the grain. As the pattern is symmetrical it is best to work the opposite pairs together. Take great care not to chip out the curlicues of the cusps.



A



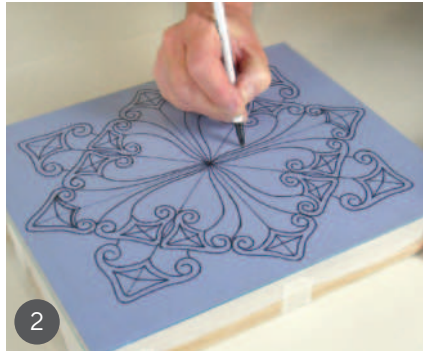
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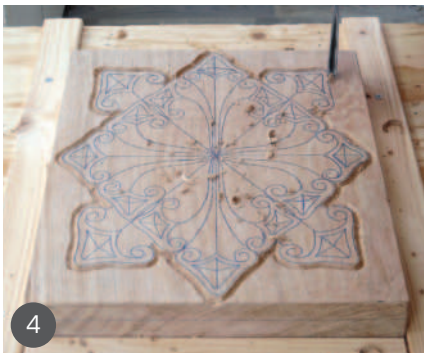
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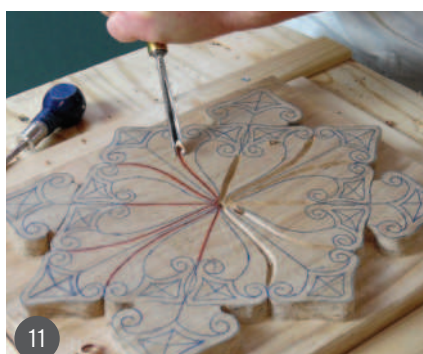
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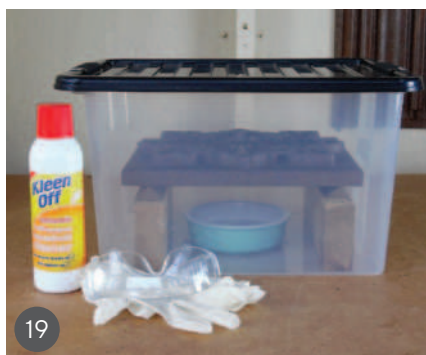
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12



13 Continue to the four diagonal sections that are broader and more curvy.

14 Reduce the levels of the ridges and valleys as they dip into the central point, taking them down to the background level in the centre. Take great care with the narrow ridges that run across the grain near the centre.

15 Now turn your attention to the cusps around the edges of the lozenge. Carefully incise the eyes inside them. Use a skew chisel to get a sharp finish where the V incisions meet in the bottom of the eye.

16 Shape the curlicues at the ends of each cusp by cutting a small incision around the tiny volute with a small gouge. Take great care not to chip out the centre of the curl. Tidy up the shape of each cusp and take a shaving off the top surface

with a flat chisel to remove any tracing carbon marks.

17 Repeat the process to carve the four cusps that project from the sides of the lozenge. Carve the ridge that joins the outer cusp to the lozenge area.

18 Finally, go over the carving to tidy it up and make sure it has a good, crisp, tooled finish. It should then look like this. If you want to leave it in its new oak colour, just give it a coat of a good wax polish. But if you want to go for the 'full Tudor' don't polish it yet – get ready to start fuming.

FUMING

19 For safety, work in a well-ventilated space and lean away from the fumes as they may irritate your throat and eyes. Get an airtight plastic tub and pour

about 50–80ml of household ammonia (obtainable from hardware stores) into a shallow dish. Wear eye protection and rubber gloves when pouring the ammonia. Place the carving in the tub, raised above the dish on wooden supports, and seal the tub. Leave it until the oak 'ages' to a pleasing dark roast – about six to 12 hours depending on the temperature, the concentration of ammonia and the amount of tannin in the oak. When you open the tub, stand back and let the fumes disperse a little before you lift out the carving. The carving will smell a bit at first, but that will go off after a few hours.

20 The finished panel now looks like a relic from Tudor times. Go over it with a dark wax polish, buff it up to a soft sheen, then hang it where the light strikes it sideways to enhance the shadows.



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EUROPEAN TREE OF THE YEAR 2022

A 400-YEAR-OLD OAK TREE FROM POLAND WON THIS YEAR'S TITLE

The Guardian of the Białowieża Primeval Forest, a 400-year-old oak tree in Poland, won this year's European Tree of the Year competition with a record 179,317 votes from across Europe. The awards were announced in March at a ceremony in Brussels.

THE GUARDIAN OF THE FOREST

The winning tree grows at the edge of the Białowieża Primeval Forest, a lowland forest close to the border between Poland and Belarus. The ancient tree has long been admired by locals and tourists and has inspired artists. It looks beautiful in every season, both during full vegetation but also when it loses its leaves and reveals its mysteriously curved branches.

For Polish people, the tree has also become a symbol of resistance to aggression of all types. This began after a recent proposal to build a concrete wall through the Białowieża Primeval Forest; this threat attracted a great deal of attention to the Guardian tree, and, in combination with the war in Ukraine, the message of 'protection' associated with the tree became even more important.

SUCCESS FOR OAK TREES

Two other oak trees took the runner-up places. Spain's Oak of Conxo's Banquet took second place. The 250-year-old tree is known as the Tree of Liberty because in 1856 it was a 'witness' to the Democratic Banquet of Conxo, a revolutionary act that vindicated the ideals of the new Europe: liberty, equality and fraternity. In the 19th century the tree was defended by Galician poet Rosalía de Castro, who founded a pioneering ecological protest in Spain. Its forest in Santiago de Compostela was opened to the public in 2018 after remaining inaccessible for more than a century.

Third place went to another 250-year-old oak tree, the Big Cork Oak in Vale do Pereiro, Portugal. This large tree harbours a variety of wildlife and offers a shady spot to relax for villagers.

The UK's entry was a hawthorn, the Kippford Leaning Tree, which grows on the Dumfries & Galloway coast in Scotland. It finished in sixth place.



- 1 Poland's 400-year old Guardian of the Forest won the European Tree of the Year competition
- 2 The Oak of Conxo's Banquet in Santiago de Compostela, Spain, was voted into second place
- 3 Portugal's Big Cork Oak finished third
- 4 The Leaning Tree in Kippford, Scotland, came sixth

PHOTOGRAPH BY TOMASZ KAMINSKI/COURTESY OF EUROPEAN TREE OF THE YEAR



PHOTOGRAPH BY CONCELLO DESANTIAGO/COURTESY OF EUROPEAN TREE OF THE YEAR



PHOTOGRAPH BY /COURTESY OF EUROPEAN TREE OF THE YEAR

ABOUT THE COMPETITION

The European Tree of the Year is a contest that highlights the significance of trees in the natural and cultural heritage of Europe and the importance of the ecosystem services trees provide. The contest is not looking for the most beautiful tree, but for a tree with a story, a tree rooted in the lives and work of the people and the community that surrounds it. The European round is a finale consisting of the winners of the national rounds. Every year, the online voting for the European Tree of the Year is organised by Environmental Partnership Association (EPA).

treeoftheyear.org
[@treeoftheyear](https://www.instagram.com/treeoftheyear)

PHOTOGRAPH BY DREW PATTERSON/COURTESY OF EUROPEAN TREE OF THE YEAR



SHAKER-INSPIRED CHEST OF DRAWERS

KEVIN LEY MAKES A TALL, ELEGANT CHEST OF DRAWERS

This piece was made for my most important client – my wife, Yvonne. I had sold off some demonstration pieces and in the consequent furniture shuffle she decided another chest of drawers was required... and she knew a man who could make one to her exact requirements!

We had fun designing the piece together. We are both fond of the Shaker style and decided to head in that direction. We wanted height and elegance with a bit of pizzazz. A tall chest with graduated drawers and slim tapered feet, to lift it off the floor and give a certain visual lightness, would fit the bill. If you can see the floor under a piece of furniture, it makes it look lighter. Contrasting timber in the drawer fronts would provide some extra interest.

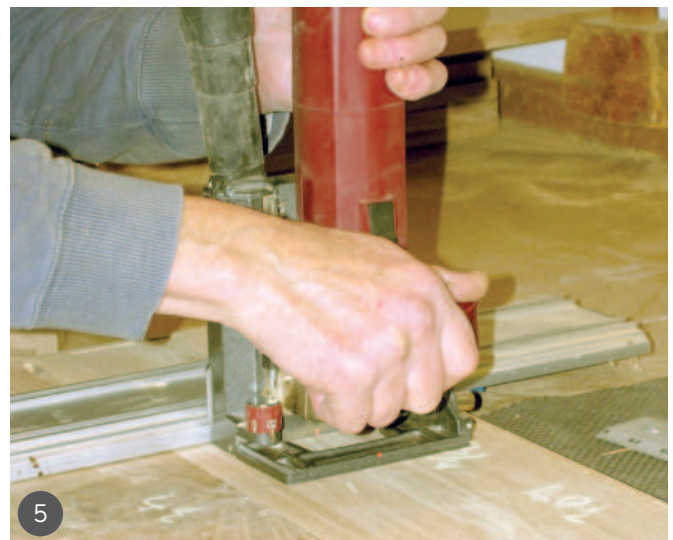
I had used fumed oak with sycamore drawer fronts in the past and Yvonne was fond of that, but she had always liked the spalted beech I used in another chest of drawers. She really wanted that used on the drawer fronts, with fumed oak for the carcass. This piece was going to be used to store clothes so the drawer carcasses would be made in cedar of Lebanon for its scent and insect-repellent qualities.

There is a particular shape of drawer pull that the Shakers used that I have always liked: it has a flattish dome and tapered underside that just suited this piece. Plenty of overhang on the top provided balance and under chamfering it again lightened the effect. We played around with the dimensions a bit and finally settled on this design.

SAFETY WHEN WORKING WITH AMMONIA

The fumed oak is prepared using .880 ammonia. Working with .880 ammonia is potentially quite hazardous as it is much, much stronger than household ammonia. The fuming chamber should be capable of being hermetically sealed once everything is ready to fume. Take care when pouring the ammonia into the dish – this must only be done in a very well ventilated area. It is sensible to have a means of checking progress, such as a dowel of the timber you are fuming, placed in the enclosure and withdrawn later to see the amount of colouration. Once the process is complete, make sure you put the spent ammonia safely into a spare plastic container.





TIMBER SELECTION AND PREPARATION

1 I already had some good pieces of American oak and cedar of Lebanon in stock. Getting hold of good quality spalted beech was more difficult. I rang round all the likely sources I knew to no avail. Eventually I was put in touch with a local farmer who had a supply of spalted beech, so I could get started with the project. All the timber for this piece was cut slightly oversize for its relevant components and then sticked and stacked.

2 The oak and cedar were stored in the workshop to settle and condition. The spalted beech was air-dried, so I made up a mini kiln with a dehumidifier in a polythene tent and sticked and stacked the oversize drawer front pieces in there for a couple of weeks to finish off. Afterwards they joined the other drawer

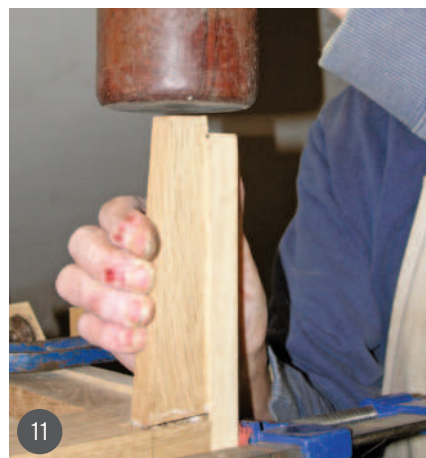
components under weight until I was ready to make the drawers. The cedar of Lebanon drawer casings were deep sawn from 25.4mm stock.

THE SIDES

3 The sides were made up from narrower pieces and butt-jointed in the usual way with biscuit reinforcement.

4 Once cured, the glue ooze was scraped off with a scraper plane, the piece cut to exact size and the surfaces belt-sanded. A housing was cut for the ply back and another was cut for the front feet.

5 Biscuit slots were cut for the biscuits that would locate the drawer rails.



PHOTOGRAPHS BY KEVIN LEY

6 The feet shapes were cut out at the base of the sides on the bandsaw, using a taper template against the rip fence, and finished with a block plane, scraper and sanding block. Biscuit slots and screw pockets were then cut in the top edge to attach the top.

THE TOP

7 The top was made up in the same way as the sides, and trimmed to exact size. A housing for the back and biscuit slots to correspond with those in the side tops were cut. The bulk of the waste for the under chamfer was removed on the surface planer and the chamfer finished with a jack plane. The chamfer was then scraped and sanded smooth.

THE DRAWER FRAMES

8 The drawer frame components were cut to size, allowing for a 3mm movement gap on the side pieces. The ends of the frame components were slotted for the Dominos, which would form the joints. The Dominos between the front rails and the side pieces would be glued and the Dominos from the sides to the back rails left dry to allow for movement.

BACK

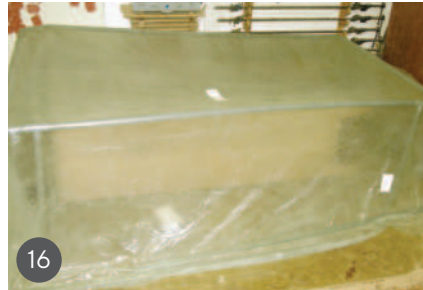
A back was cut to size from oak-faced ply. Using sheet material in the back means it can be glued into the housings in the sides and top, and glued and screwed or pinned to the back drawer rails. This gives great added strength to the carcass.

CARCASS ASSEMBLY

9 Screw pockets were cut in the ends of the front and back rails to form the joint with the sides. The bottom face of the bottom front rail had a housing cut in it to take the front feet. The drawer frames were fitted by gluing the biscuits at the front and leaving them dry at the back. The sides and frames were clamped up and adjusted for square. Once squared the screws were driven into the pockets.

10 The pocket plugs were trimmed flush.

11 The feet were tapped into the slots in the sides and the bottom drawer.



12 The carcass and feet were clamped into position.

13 When cured, glue was applied to the housings in the top, sides and the back rails, and the ply back sprung into position. The carcass was adjusted as necessary for square and the back pinned to the back rails.

14 The sides were power-sanded before fitting the top.

15 The top was glued and clamped in position.

FINISHING THE CARCASS

16 When cured, the carcass was sanded with the random orbital sander and by hand, taking care to remove all blemishes and leave a perfect finish. A polythene tent was constructed and the carcass placed inside with two open containers of .880 ammonia and left to fume. The ammonia was poured outside into the smaller lidded containers and carried in to the tent, where they were placed inside and the lids removed. Appropriate safety gear was worn. I left it for a couple of days

to get maximum colour change and penetration, then opened the windows and removed the polythene. When the air had cleared, several coats of finishing oil were applied in the usual way, gently rubbing down with Scotchbrite orange and grey pads to denib between coats. Don't use wire wool on oak, as it reacts with iron. During the curing time between coats I started on the drawers.

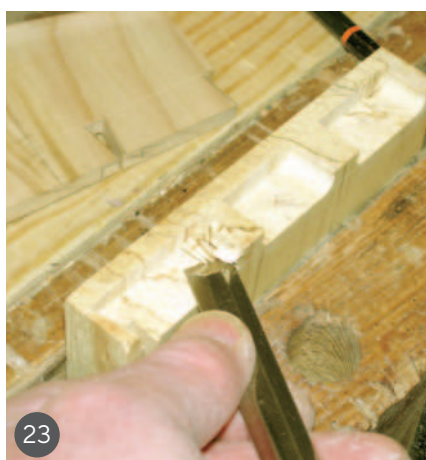
THE DRAWERS

17 The drawer components were cut to size and individually fitted; the sides to a running fit and the fronts to a push fit, the backs were cut using the relevant front as a template. Housings were cut for the oak-faced ply bases in the sides and fronts. The dowel holes for the pulls and the screw counter sinks and pilot holes for the pull screws were drilled in the fronts.

DOVETAILS

18 The dovetails were marked with a cutting gauge...

19 ... and a 2H pencil on the sides.



20 The sides were taped together in pairs and the bulk of the waste around the tails cut out on the bandsaw, once again using a taper template.

21 They were cleaned up with a scalpel and used to mark the pins on the fronts and backs.

22 The bulk of the waste around the pins was removed on the router table with a straight cutter.

23 The joints were cleaned up with a paring chisel.

DRAWER SLIPS

24 The inside faces of the drawers were sanded and the drawers were assembled using sash clamps to pull up the joints nice and tight. They were checked for square and left to set. The drawer sides had been left thin for aesthetic purposes, so the housing for the base was a bit shallow. Cedar of Lebanon is also quite a soft wood, so to add support for the base and provide a wider running surface on the bottom of the sides, a reinforcing strip of timber – a drawer slip – was glued and clamped to the side and base.

DRAWER PULLS

25 The drawer pulls were turned on the lathe using a sizing tool to make sure the diameters of the pull tops were equal and the fitting dowels were exact. An extra 'insurance' pull was made just in case. The pulls were placed in a plastic container and fumed, then oiled in the same way as the carcass.

DRAWER FITTING

26 Before attaching the pulls the drawers were fitted into the carcass using planes and sanding blocks until a perfect fit was made. Then, after a final clean-up all round, the stops were fitted to the front rails.

27 I then adjusted where necessary with a rebate plane; this ensured that the drawer fronts were set slightly recessed into the carcass of the chest.

DRAWER FINISHING

28 To keep the crisp cream colour of the spalted beech, an acrylic water-based floor varnish was used on the fronts of the drawers.



Masking tape was used to leave a clean line on the dovetails after the thickness of the front had been coated. Three coats were applied with gentle denibbing between coats. Once cured the pulls were glued and screwed into place and the running surfaces given a light rub with candle wax for smooth operation.

29 Overall, we are both very pleased with the finished piece. The drawer capacity is considerable for very little floor space. In spite of its size it looks light and elegant, and the spalted beech really adds something extra to the overall look of the piece.

ARTICHOKE NEW DESIGNERS AND MAKERS CONFERENCE

WE REPORT ON A SUCCESSFUL FIRST EVENT
FOR THIS NEW ANNUAL CONFERENCE

The first ever Artichoke Designers and Makers Conference was held in Cheddar, Somerset on 25 February. The conference was a free event aimed at assisting student designer-makers and young furniture start-up companies in the business aspects of running a furniture and cabinetmaking venture.

Over 65 furniture students and start-up furniture makers attended the event, which was organised by Artichoke, a

Somerset-based company with 30 years' experience in the design and manufacture of bespoke furniture and joinery. Now employing over 50 staff, it was itself a one-man band cabinetmaker 30 years ago.

Delegates listened to speakers including Alice Blogg, who talked from the heart about her journey as a creative in wood, and Charles Byron of Byron & Gómez who provided an excellent insight into how he and his wife, Maria, started

their company. Both speakers provided excellent advice on some of the pitfalls they faced early on and how they might be avoided.

The keynote speaker for the event was Dr Inge Hill, a Senior Lecturer at the Royal Agricultural University who is dedicated to supporting start-up small businesses. Her talk, Being Entrepreneurial and Creating a Business Model that Fits, focused on a broad range of challenges



which delegates are likely to face as they begin their business journeys, including investment, value creation, strategic positioning, business models and grants.

'We were delighted with how the day went', said Andrew Petherick, Artichoke's business development director, who gave a talk on creating a brand. 'All the students and start-up makers who came were really engaging and it was a really friendly atmosphere. Artichoke was fortunate to have had great advice from a prominent business leader when the company was launched 30 years ago. This advice helped put us on a sound financial footing and we're delighted to be able to pay that forward to the next generation,' he said.

The conference was opened by Artichoke chairman Paul von der Heyde and closed by David Dewing, Past Master of The Worshipful Company of Furniture Makers, and current chairman of the Southwest Region.

Artichoke intends to run the event annually following the success of this inaugural conference.

artichoke.co.uk
[@artichoke_ltd](https://twitter.com/artichoke_ltd)

OPPOSITE Alice Blogg gave a speech about her creative journey

TOP Paul von der Heyde, Artichoke chairman, opened the conference

MIDDLE Charles Byron of Byron & Gómez told his business start-up story

BOTTOM Andrew Petherick, Artichoke's business development director, spoke about the importance of branding



PHOTOGRAPHS COURTESY OF ARTICHOKE



REGENCY CHAIR RESTORATION

LOUISE BIGGS CARRIES OUT SOME ESSENTIAL REPAIRS ON A SET OF ANTIQUE DINING CHAIRS

I was asked to view a set of dining chairs (along with the matching dining table) that were in need of restoration. My customer inherited the set from her grandparents. The sabre legs and lyre-shaped back splat designs date from the Regency period, circa 1810–20. More varieties of wood were being used from this period onwards and these were made of sapele. As the chairs were used by the client on a daily basis, I restored them in two lots, to leave the family something to sit on. I took the three chairs in the worst condition first.

ASSESSMENT

- All the chairs had loose joints, some had parted completely and some were pivoting within the joints.
- The arms on the two carvers were loose.
- On one chair, the top front of the sabre leg had broken away, exposing the mortise and tenon joint (see photo A).
- The polish had not only been affected by water on the bottom half of the legs, but also the backs of some had clearly been too close to a heat source at some point (see photo B).
- The seats were going to be re-covered, but after discussion it was decided they would be completely re-upholstered instead.
- With the polish in a degraded state and bleached, it was decided that I needed to strip and re-polish all of the chairs, bringing them back to match their original colour and the dining table.





PHOTOGRAPHS BY LOUISE BIGGS

STAGES OF RESTORATION

1 When knocking apart more than one chair, I always clearly label all components of each chair so that they go back the way they came apart. I use masking tape on inside faces and write on the tape before placing on the wood as pen or pencil can leave an indentation. Polished surfaces require low tack tape and a test first to make sure the tape does not disturb the polish when peeled off.

2 I started by removing the corner blocks, which had been re-glued to try and stabilise the chairs. As the screws on corner blocks tend to get some glue in the threads when they are put in, I usually start by tightening them, this usually breaks any glue residue and allows you to then unscrew as normal. Once removed, the old glue can then be cleaned off.

3 A visual check is needed over each joint

area for evidence of any nails or wooden plugs which disguise screw heads. With the absence of these the frames were knocked apart using a rubber mallet. If a joint is loose but will not come apart and is glued with animal/hide glue, I dribble or inject methylated spirits into the joint as this will dissolve the glue, although caution is needed to protect a French polish finish.

4 The joints could then be cleaned up using a chisel to remove all the old glue, wax and dirt. I keep an old chisel for this job as the hard glue will damage the edge of a chisel. Before re-gluing the chairs, and with the necessary face shield and mask in place, I stripped the component parts of the existing finish, neutralised them with methylated spirits and then sanded all the parts to remove any residual stripper debris and watermarks and prepared them for re-polishing.

With a new front leg being made for the one chair, the broken leg would be kept as a colour matching pattern.

5 Using sash clamps and animal/hide glue I then re-glued the back and front frames using wooden blocks to prevent the clamps damaging the frames, and checked that they were square. The frames were glued up with the side rails in the same way. Depending on the shape of the legs and seat plan, wedge-shaped blocks would be needed in order to clamp the chairs more effectively. It was important to check the rake of the chair to keep the angle of all the backs the same. Ideally, this measurement is taken from the most stable chair, but the rake on carver chairs can differ.

6 With the carver chair arms, the screws joining the bottom of the arm to the seat rail were removed and the dowel joint



where the arms join the back legs gently tapped apart, the joints could then be cleaned up.

7 When gluing the frame of the carver chairs, the arms were glued into position at the same time. The screws in the seat rail were replaced and the dowel joint closed using a sash clamp. This ensured that the rake of the chair was correct and then I checked for square across the front, where the arm joined the seat rail to the top of the arm, to make sure that both arms were at the same angle.

MAKING A NEW FRONT LEG

8 Although the customer had the section of broken leg, the joint was always going to be vulnerable as it took the strain of the front frame. There was only a small area to form a glue joint as the remaining area was the mortise for the joint, the side rail mortise also came into the

leg at the same height. Strengthening dowels drilled at compound angles would show on the front of the leg but would be ineffective if drilled through from the back and I cannot bring myself to strengthen a repair with screws and nails, if only for the benefit of any restorer following me later on.

9 The first stage was to make a template of the shape using a piece of card. Using an undamaged front leg from one of the other chairs, I marked around the shape and the positions of the mortises for the front and side rails on the card.

10 Using callipers I double checked the measurements of the leg against the template. This could then be cut to shape using a utility knife.

11 The timber was planed to the correct thickness. The shape of the template and

positions of the mortises could then be marked on the timber. The surfaces were parallel at the top of the leg, front and back, so I lined up the top front of the leg with the edge of the timber.

12 I then cut out the shape of the leg using a bandsaw, keeping my hands to the side of the blade. I positioned the fence in order to cut the parallel back edge at the top of the leg, the remainder was cut freehand on the waste side of the line to allow for cleaning up the shape.

13 I started by cleaning up the surface for the side rail joint using a chisel and spokeshave and made sure they were flat and square to allow for a well-fitting joint.

14 Next I cleaned up the front and back shapes with a spokeshave, checking the shape against the template and then marked the positions of the mortises.



15 The mortises were cut out using a mortiser and a packing piece to clear the shape of the leg when clamping it in the mortiser, for cutting the front rail mortise. With the joints cut I did a dry test fit of the frame and then cleaned up the new leg using a cabinet scraper and abrasives. The front frame and remainder of the chair was glued, as in step 5. The rebate at the top of the leg was cut flush with the inside edge of the side rail and top of the front rail.

16 I used a flat-bottomed spokeshave to finish shaping the top front of the leg.

17 Using a piece of old hacksaw blade, I cut and filed it to the shape of the existing reed on the front leg of the chair.

18 The cutter was fitted into a scratchstock then pulled along the two edges of the leg cutting the grain 'downhill' to support the wood fibres and prevent tear-out. With the detail cut, the final shaping of the front edges could be carried out using a spokeshave.

19 All the corner blocks were replaced, the screw threads lubricated with candle wax to prevent them being glued



into the rails. After a final clean-up the frames were stained. The grain was raised on the new leg with water and sanded before staining. I used Van Dyck crystals dissolved in hot water as the colour can be adjusted by adding more water to weaken the stain or more crystals to strengthen it. It is applied with a brush to get in all the corners and after a few minutes the excess wiped off and allowed to dry.

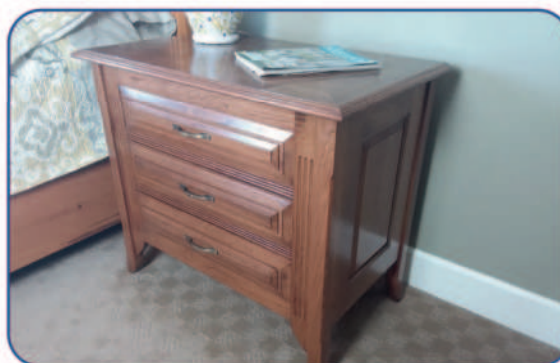
20 I then sealed and French-polished the chairs. It was important to get into corners but avoid any runs of French polish. The chairs were rubbed back with wire wool grade 0000 and waxed to cut the high shine to the polish on the table. The drop-in seats were re-upholstered by a colleague, with the new front leg matched in to the other chairs – left hand chair, front left leg. One very happy client as a result!

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FURNITURE FOR A BALANCED MIND

RONAN MORRISON QUIT A HIGH TECH JOB
IN LONDON TO MAKE FINE FURNITURE IN
SOMERSET AND LIVE A MORE TANGIBLE LIFE

A history of anxiety and depression has inspired former video producer Ronan Morrison of Romo Fine Furniture to create a range of pieces that aim to help maintain good mental health. Originally from Cork, Ronan spent seven or eight years between London, Dublin and San Francisco working for Google, producing videos on a range of subjects including mental health issues and learning development.

'Although I did enjoy certain things, I struggled a bit with the lack of tangible outcomes and the very subjective inputs into the videos I produced for such large corporations,' he recalls. As he had to report to a number of different teams, Ronan found it was hard to see how much he himself was influencing the videos as he juggled all the other varying demands. 'I'm all for collaboration, but I think there is also value in seeing your input,' he says. 'That was the motivation for me to start doing something else.'

He had previously done a 10-week night school course in woodworking and furniture making in Dublin, and now started taking night courses and joined a co-operative workshop in Hackney, not far from his home. 'I was lucky enough to have a small backyard where I was able to do bits and pieces on my Workmate, and that really did give me satisfaction – to the point where I was much more looking forward to evenings and weekends when I could get my hands on some project or other than I was looking forward to going to work,' he recalls.

BACK TO SCHOOL

Initially cautious to commit, Ronan was given the nudge he needed around three years ago, when his girlfriend, who had been working in the same industry, took a year out to train as a garden designer. 'That really pushed me,' he says, 'and we decided that we would leave together and I would follow my new career, at least for a little while.'

The pair moved to Somerset and Ronan enrolled in the Williams & Cleal Furniture School near Taunton. 'It was good timing for a lot of reasons – I don't think we would have done

particularly well in London during lockdown,' he says. He spent a year on an intensive training course that covered both the design and theoretical side of furniture making, and time in the workshop on the practical side. 'I really enjoyed it and knew almost immediately that I had made the right decision,' he says. 'I loved being able to see some difference between nine in the morning and six in the evening, something I had done and what impact I had had.'

After finishing the course Ronan took a workbench in an incubator workshop, but with the Coronavirus pandemic and lockdown he ended up in that space on his own for a long time. 'It was great from a space point of view, but not ideal from the point of view of just having someone else around,' he says. He has been there for around a year and a half now, but hopes to move to a workshop of his own soon.

He has been inspired by his friends Charles Byron and Maria Gómez, who were in the same incubator workshop before he took his bench there, and have gone on to take on their own space, from which they now run their bespoke furniture business. 'The incubator workshop has been a great stepping stone, but to have a truly successful business I need to be operating on my own terms,' says Ronan. 'My hope is to be out of here in the next two years, and to find a place of my own where I can take that leap of faith and invest my own money in my own work.'

TOUGH TIME FOR A LAUNCH

He admits it has not been easy to set up his own business during these strange times. 'It's been slow and difficult. There are times when I think it is starting to get a bit of traction, and also times when I think, what have I done? I have made a terrible mistake, how am I ever going to make money? Thankfully, at the moment I'm on the crest of one of those waves and feeling quite positive, with a little bit more work coming through. It means I have more time to make, rather than focusing on the business side of things,' he says.



Has his background as a video producer helped him with the crucial social media marketing side of things? 'I'm a little bit adverse to that,' Ronan says. 'I quit my job because I wanted to be a furniture maker, not a video producer. Although I know it is necessary to have a certain presence online, and within the business marketing is probably almost more important than actual making, I don't take to it well. I want to spend time being creative in the product design and furniture-making world, not necessarily in marketing. In an ideal situation I would outsource it.'

In terms of style, Ronan is very open and consciously tries to be as varied as possible in his design. 'I go from what might be considered a bit more crafty to very luxurious and high end, and I like to try everything in between,' he says. 'It's great to have that variety, both from an interest point of view and from a design point of view: it means that whatever a client approaches you for, you should have the ability to work with them and find a design that suits them.'

His main aim is to make furniture that will last generations. 'A piece of furniture is where you can create memories, as well as being something you use practically throughout the years. Ideally I want to produce something that can be passed down from generation to generation, and whenever you use it or look at it, it brings up memories from your childhood, your past or your family history.'

LINKING FURNITURE AND MINDSET

In his speculative work Ronan is working on a comprehensive collection of furniture based on facilitating and promoting mental health. He explains: 'I would like to say I'm an advocate of maintaining good mental health, and among friends and family I'm always quite outspoken. I have a history of suffering with anxiety myself and a little bit of depression sometimes, and also have family members who have diagnosed mental health issues. In my previous job it was a big deal for me to promote mental health awareness, and I produced a lot of videos on that subject.'

'The link between furniture and mental health is not immediately obvious. But I looked at my life and asked, what are the key things I'm very passionate about? Honesty around mental health is definitely one of those things.' His collection will be based around three goals for facilitating good mental health. The first is to be more connected to nature, which ties in with his selection of materials. 'I'm quite conscious of the timber trade, so I try where possible to use only UK or Irish timber, or if I come across some salvaged or repurposed exotic timber, I'm happy to use that as long as it was already used for another purpose,' he says. He sources most of his timber from Tyler Hardwoods in Marlborough, which has a good selection of British, FCC certified timber, and his veneering materials from Nantwich Veneers in Crewe and Mundy Veneers in Wellington.

The second goal for Ronan's furniture is to encourage people to be present. 'That influences the textures and finishes that you feel and touch,' he explains. Finally he aims to use the form, design and aesthetics of the furniture itself to reflect a calmer mind, one which can manage the difficulties in life. The collection aims to promote rest, sleep, socialisation, creativity and productivity, and

is to include armchairs or lounge chairs, a dining table and chairs, a coffee table, and perhaps a bed and bedside tables.

Ronan does much of his speculative work in his own time at weekends or during down times in his commissioned work, either when he's in between waves of business that come in or if he is waiting for materials to be ready. 'A lot of my time on speculative work is spent researching, sitting at my machine and thinking about the kind of message I want to bring across. If you are working on speculative pieces you have to create a concrete brief before you start: limiting your possibilities is important, and unlimited possibilities are almost the worst thing you can have.'

Ronan adds: 'I'm trying to take my time with the collection. I sometimes get a bit impatient, and if I have an idea I have to get the design done very quickly and have something made within a few weeks because of my attraction to seeing something made. Now I'm taking a bit more time, so that all my design decisions are very deliberate and well thought through.'

INSPIRING VIEWS

Much of his inspiration comes from his new rural home, where he is surrounded by woods, fields and pasture and is just 10 minutes from the beach. Nearby Cleeve Abbey's architecture has influenced some of the shapes and forms in his furniture, and he also subscribes to interior design magazines and reads design books. 'I do try and get out and about as much as possible, not just for the direct inspiration but because it gives me the headspace to be a bit more creative,' he says. 'Someone once gave me some good advice with regard to research, which was to look at as much inspiration as possible, but always take a nice gap between the research and inspiration and actually doing a design, so that you get the essence of something without entirely copying it.'

In terms of tools, Ronan is happy to use whatever best suits the job. 'I'm not a purist about hand tools – I do appreciate the value of machines in the workshop.' His current space has a good range of machines including a big joiner, a planer thicknesser and a bandsaw. 'I love them when it comes to getting through the foundations of a job and getting all my timber up to the proper dimensions, but I do like getting my hands dirty when it comes to finessing,' he says. He enjoys working with a hand router plane and also loves his set of Stanley Sweetheart chisels.

He notes: 'It doesn't matter how much you paid for it. As long as a tool works well in your hands it is good tool, and that is all that matters. I try not to be too much of a snob when it comes to purchasing hand tools.' The line he strikes to balance automated operations and hand work is C&C and laser cutting. 'There are definitely uses for them for certain repetitive and mundane tasks that don't require a handmade touch, but for that truly handmade finish they are something I would probably avoid,' he says. He doesn't have a favourite finish and believes that every finish has its place, from the full gloss polyester finish he used on his Burlesque dressing table to give it an Art Deco look, to the plain satin oil he uses on other pieces. Recently he has been experimenting with scorching, and has enjoyed the effects, as well as the fact that it is quite a natural way of finishing a piece, although he admits: 'Fitting it into the fine furniture world can be a bit tricky.'





PHOTOGRAPHS BY MICHAEL PAWLEY PHOTOGRAPHY



LEANING INTO THE CURVES

The first piece Ronan ever made was when he was in his 20s living and working in Dublin and taking an evening course in woodworking and furniture making: a simple jewellery box with mitred joints and an inlay. 'I gave it as a present to my sister and she still has it – I saw it again recently. I was both proud of myself and a little cringing at the quality of the work,' he says.

His most challenging piece has been the Burlesque dressing table (pictured above), which he says is 'nothing but curves'. Having done basic training in steam bending, he decided to go with laminated wood bending for the dressing table and chose a series of very thin flexible plywoods to create the core, then veneered the faces. 'I thought, if I'm working to the same mould every time I should have a very consistent result. But that was probably an oversight on my part, because when it came to construction I noticed there were areas where some of the pieces had twisted or recoiled following the lamination process.

'One thing I would recommend, because of the failed versions even in laminated curve work, is to dry-assemble all the components first before veneering. In a couple of areas, after I had laminated and veneered it, it was still slightly off. I had to shape the piece back down by hand and re-veneer, which was a bit more expensive and a lot more work.'

Burlesque took him a long time to complete, starting while he was still at furniture school and finishing after he had left, working on it in between other projects as and when he could find time. 'That was challenging because every time I came back to it I had to get back into that headspace and figure out where I was with it. The materials and processes I used were also the most challenging to date – I had to make things square when they are all curves.'

One of his favourite pieces is Crokinole, a board for a Canadian game loosely based on the dynamics and play style of curling, in which you slide discs and aim to get them as close as possible to the centre in order to win. 'It was very enjoyable, there were a few different disciplines involved and I got to work with veneered walnut, beautiful maple inlays and the basics of machining brass,' Ronan says. 'It was also a very satisfying

project in terms of the use of the furniture. I have witnessed a lot of my friends and family getting tremendous enjoyment from it, and it is very satisfying for me to see something I have made bring joy at that kind of level, without anyone having to be an expert in designing or making to appreciate it.'

While he incorporates elements of art into his work – for example in his Tête chair, inspired by George Nakashima's Conoid bench – Ronan aims to balance the aesthetic with the practical in all his pieces, and feels he is more weighted towards the practical side of things. 'Because of the world I have come from where material can be very subjective, I'm always sure to include an element of practicality I can't argue with,' he explains. 'If it is a chair, I can't argue that it's not a chair, but I can argue over its aesthetic properties. I like to imprint my furniture with a certain practical sense.'

He is currently working on a stand-alone kitchen unit that is to match a client's existing fitted kitchen. 'The design is very limiting, but it is a good project in terms of making and the economy of materials and finance. It really gives me a chance to figure out how easy or difficult it is to produce what people might consider very day to day furniture,' he says. His next project is a possible commission for a large waney-edge dining table. 'The client already has quite a strong idea of what they want, so it will be quite interesting to see what kind of small details I could add to the design to enhance it for them,' he says.

When he's not working Ronan spends a lot of time walking his dog, playing board games, working on his house and reading. Having spent a long time in cities like London and Dublin he says he sometimes feels guilty for not spending all his spare time visiting art galleries, exhibitions, theatres and cinemas and socialising. 'But I have started to come around,' he says. 'I do something very satisfying with my day, so I can have a guilt-free evening recuperating and doing some inspirational stuff. Overall it's quite calming and quite introverted.'

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HANDMADE: BRITAIN'S BEST WOODWORKER

CHANNEL 4'S HIT SHOW IS SET TO RETURN FOR A SECOND SERIES. COULD YOU BE THE NEXT WOODWORKING STAR?

In the forthcoming competition series, Mel Giedroyc will introduce some of the country's most talented craftspeople, as they battle it out to be crowned Britain's Best Woodworker.

Wood isn't just good – it's magnificent, and in skilful hands it can be transformed into the most spectacular of objects. The next series will celebrate the beauty of the raw material and the craftsmanship of those who are good at working with it.

Mel Giedroyc rules the workshop as each week, the woodworkers will compete against each other with a big build that supersedes the skills they've honed at home and a surprise challenge that tests their core skills.

The woodworkers will fight hammer and nail, building wonderful works of wood that combine epic scale with fine craftsmanship and cutting-edge design. But they'll have to impress the judges to remain in the competition.

The casting team are looking for applicants now, with filming set to take place in spring and summer this year, and want to speak with absolutely anyone who has a passion for wood.

If you're interested, please email the team for an application form at:
wood@plimsollproductions.com

Handmade: Britain's Best Woodworker is made by Plimsoll Productions. Applicants must be over the age of 18 and all elements of the programme will adhere to strict Covid-19 protocols.

Any personal details sent to Plimsoll or given over the phone or email will be treated in accordance with data protection law. By supplying this information, you acknowledge that your personal information may be used in connection with the programme in accordance with our privacy policy. <https://plimsollproductions.com/privacy-policy/>

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TURNED OAK KNOBS

RICHARD FINDLEY MAKES A BATCH OF FURNITURE KNOBS
IN WHITE OAK WITH BLACK INFILL DETAILS

This commission came from a local furniture maker who needed a large number of knobs in three sizes and various timbers. These knobs were unique in that they featured a thin black line detail on their faces.

The initial drawing from the client showed a knob with an ebony insert in the centre; I made this and submitted it but the customer agreed with me that it looked rather like an eyeball on a stalk. He asked whether it would be possible to have a ring rather than a solid detail and, as usual, I said: 'Yes, I'm sure I could do

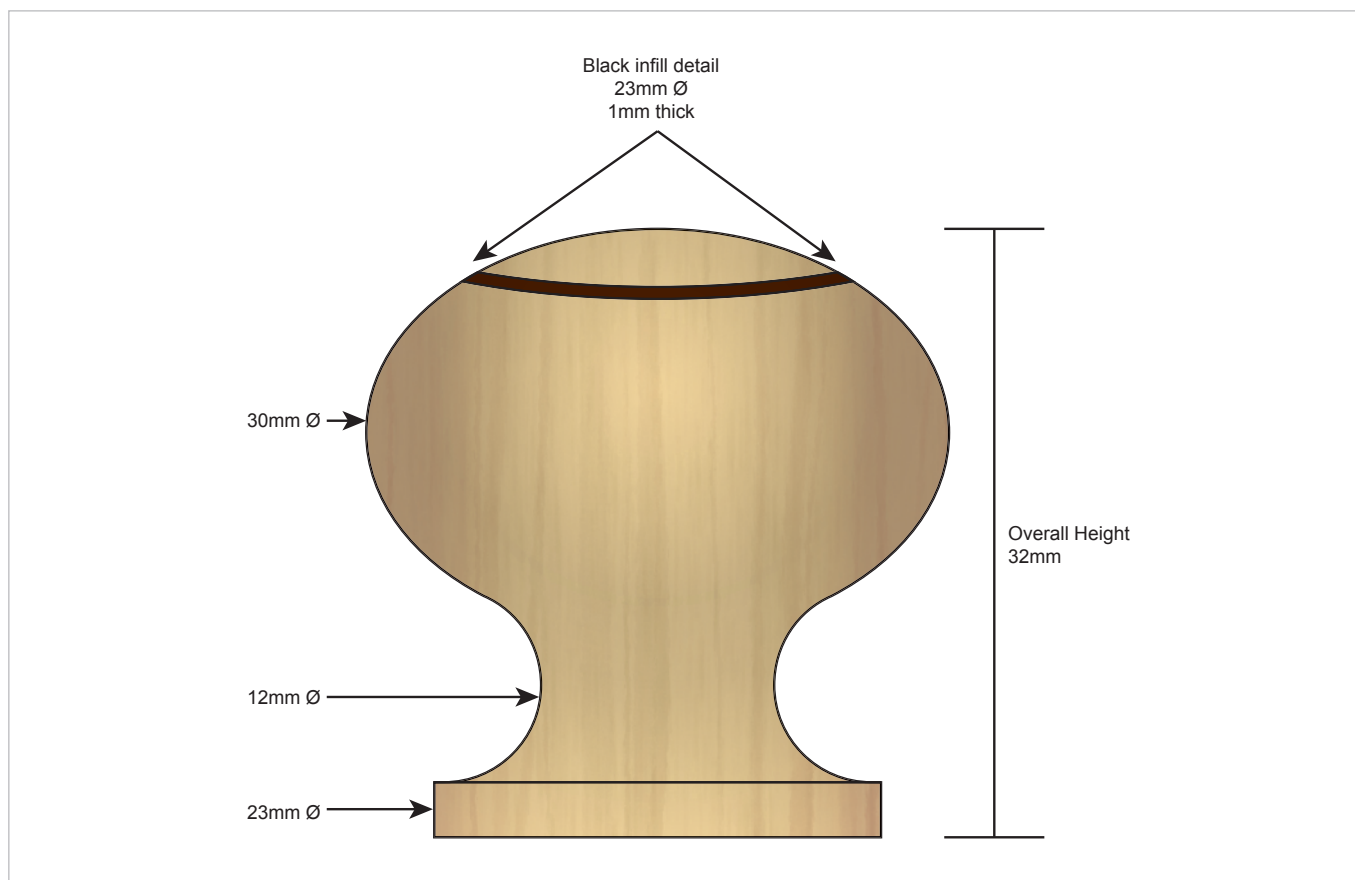
that.' Me and my big mouth!

I made a new sample with a 2mm black line, as requested, made using a thin parting tool and filling the groove with a black resin and paint mix. On the oak sample this worked fine, as it had when I have used this technique in the past. The sample was once again returned with the comment, 'we like the shape but want the line 1mm, not 2mm'. So I made up a special tool and re-submitted the sample to the client. This time it was accepted and I was given several lengths of machined timber in various hardwoods

with a schedule of which knobs were needed and where.

Once the job was under way I found that, despite my resin mix working well on the oak sample, it didn't work at all well on the maple or cherry knobs. The colour bled into the end grain and so I had to find another way of doing it. I found a proprietary filler that came in ebony colour, which worked perfectly, so the job was eventually completed successfully and on time. The following step-by-step article shows how I made the medium oak knobs.





YOU WILL NEED

Tools:

- 6mm beading & parting tool
- 6mm spindle gouge
- Homemade grooving tool
- Dividers
- Callipers
- Filler
- Pallet/kitchen knife

Timber:

The timber used for these knobs was American white oak but I also had to make other versions in American black walnut, American maple, sapele and American cherry. Once the filler issue was resolved

all worked well, but it was interesting to notice the difference in working each timber and the different pressures required to cut them.

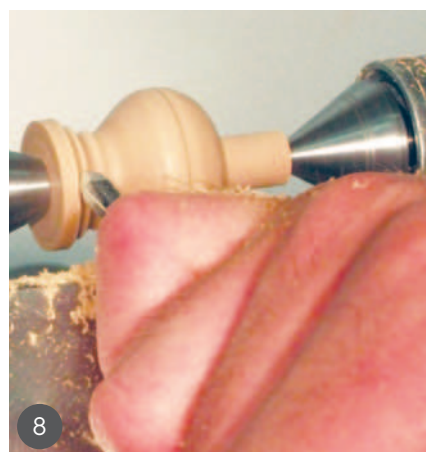
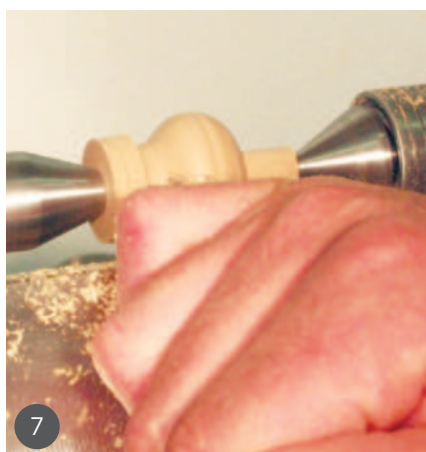
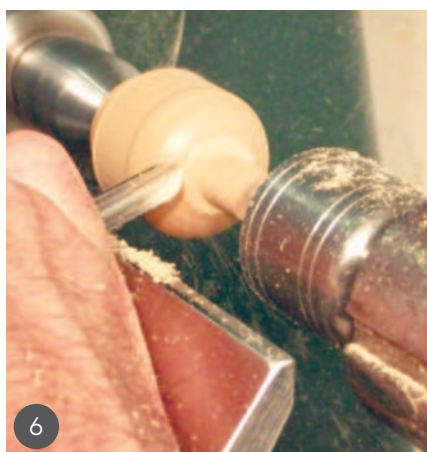
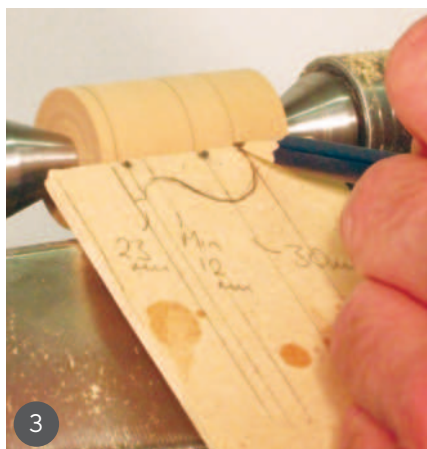
Medium knob: 32mm square x 45mm long

MAKING THE KNOBS

1 The timber was prepared 2mm over size and 15mm over long and mounted between a small ring centre and revolving point centre. I chose to mount between centres, rather than in a chuck, because I needed to be able to re-mount the knob to re-work the black infill

detail. The downside to this is that you need a little more waste to prevent the centre point marking the finished item and there is some cleaning up to do. In a chuck there would also be waste wood but at the other end of the blank and, with both chucking methods, there is a potential issue with re-mounting and running concentrically.

2 I roughed the blank to round and to the maximum required diameter. This could be done with a small spindle roughing gouge, but I chose to use a 6mm beading and parting tool.



PHOTOGRAPHS BY RICHARD FINDLEY

3 Using a copy template, I marked the positions for all of the main details, in this case the flat at the base, the high point of the knob and the end.

4 There are three important diameters for these knobs: the base, the knob and the cove. I set three sets of Vernier callipers to these sizes and made the first cut, bearing in mind the diameter of the knob had already been sorted in the roughing stage.

5 Next, I cut down the waste with the same tool to a small nib, making sure it was big enough to support the work but also small enough to enable access to shape the knob and add the line detail.

6 Using a 6mm spindle gouge, I began to shape the knob, starting on the end and shaping from the high point mark to the waste.

7 With this shape cut I could then begin to shape the other side of the knob, being

careful not to catch the wing of the gouge as the cove shape was formed.

8 As when cutting any cove, the cuts were alternated left side then right – or right side then left – until the required shape was formed.

9 Once the cove shape looked about right I checked the diameter with a third set of Vernier callipers. I find that, once in the flow of production, by cutting the correct shape, this measurement tends to automatically come right.

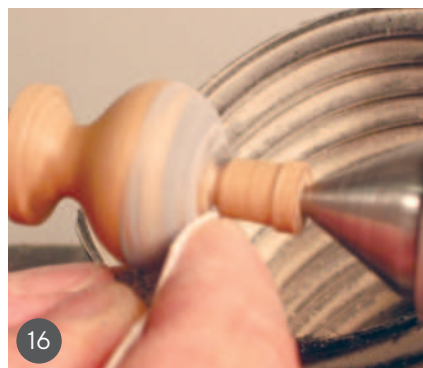
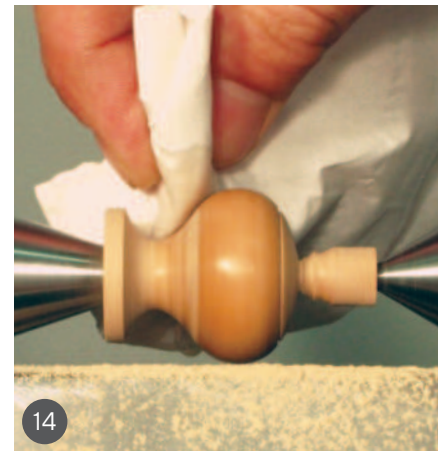
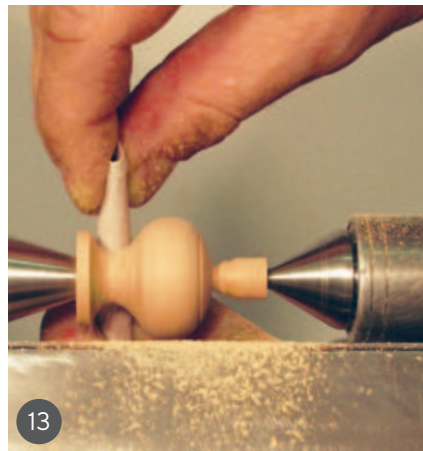
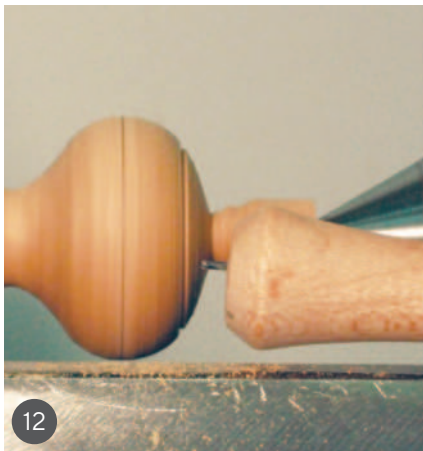
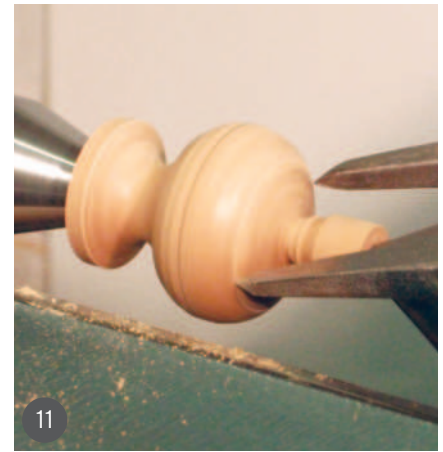
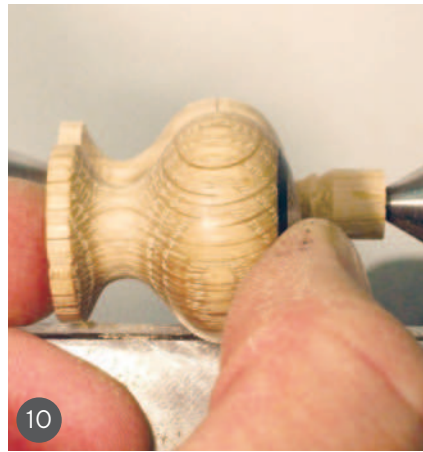
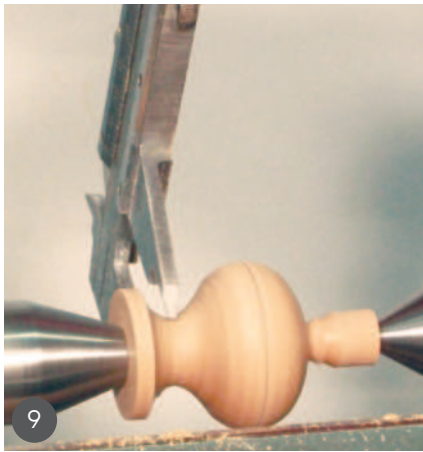
10 Using my original sample, I compared the shape. This technique is no use for sizing a component but is great for matching important curves and shapes like this.

11 Using a sharp set of dividers, I very lightly scored a line into the face of the knob. I should add a note here about the safe use of dividers. I found this technique safe, as long as only the left leg

touches the wood in a very light trailing action. To save time moving the toolrest continually I rested the tool on part of the tailstock to give me stability. If you are not comfortable with this I recommend taking the time to move the toolrest to support the dividers or find another method.

12 I then used a homemade tool to score or cut a deeper 1mm groove. This is simply a turned handle with a 1mm drill bit fixed into it. The 1mm drill bits are a little delicate so I did manage to snap a few during the production run but they are easy to replace in the handle and it was a cheap and easy way to achieve a repeatable groove.

13 I then lightly sanded with 180 grit, carefully folded into and around all of the details. You will notice that the toolrest was still in place when I did the initial sanding, something that is advised against in most woodturning books. However, in production turning speed is important – although this should never



overtake safety in the list of priorities. Done properly, this is a perfectly safe technique that most production turners do for small work like this. By sanding from behind the work, as is clearly shown in this photo, nothing can get caught between the spinning wood and the toolrest. If you are not comfortable with this method, remove the toolrest and sand as you normally would.

14 Next, using cellulose sanding sealer, I wiped on a thin coat to seal the wood.

After the problems with the colour bleeding on my first attempts I needed to do everything I could to prevent it happening again. Sanding the surface made it harder for the filler to enter the fibres of the wood and the sanding sealer further reduced this risk. I checked with my client what the final finish was going to be to ensure there would be no compatibility issues.

15 With the sealer dry I pasted the filler into the groove. A small pallet knife

would be ideal here but I used an old kitchen knife.

16 Once the filler was thoroughly dry I re-mounted the knob and sanded away the excess filler, then sanded the whole knob with 240- and 320-grit abrasive.

17 The knob then needed parting, which could be done either with a saw or on the lathe. Whichever method you choose you will need to leave a small nib to make sure you don't pull out the end grain of the knob.



18 Using a sanding arbor mounted in the chuck, I then power-sanded away the nib, being careful not to alter the shape.

19 Although these were supplied to my customer unfinished, I lacquered one of each size in oak to show how they would look when finished.

20 The finished knobs, ready to be sent to the customer.

LINE DETAIL OPTIONS

Hindsight is a wonderful thing! Looking back there were a couple of alternative options for adding the line detail which I didn't think of at the time, but could have been quicker and easier. Given the chance again, I might have offered samples using these methods:

- Burnt line – I could have burned a line on to the surface with a piece of Formica or similar, which would have given a similar effect with less work.

- Permanent marker – This has been suggested by several people and might have worked well, although there could well have been bleeding issues here, too. Black marker pen can also often look a strange shade of 'black' once properly dry.

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SUPPORTING BRITISH CRAFT

WE FIND OUT HOW A QEST SCHOLARSHIP BOOSTED
JACK RELTON'S FURNITURE-MAKING CAREER



Jack Relton uses traditional hand tools and ancient joinery techniques to make contemporary furniture and other objects from locally grown, ethically sourced British hardwoods.

Jack started making furniture for fun on evenings and weekends, foraging for discarded materials in builders' skips; dragging pallets, rafters and copper pipes back to his shed. Through self-directed study – books, YouTube tutorials and much trial and error – he learnt skills and techniques as and when his projects demanded them. Over the following years he slowly turned this hobby into a profession, and began making bespoke furniture from Blackhorse Workshop, a shared professional wood and metal workshop in north London.

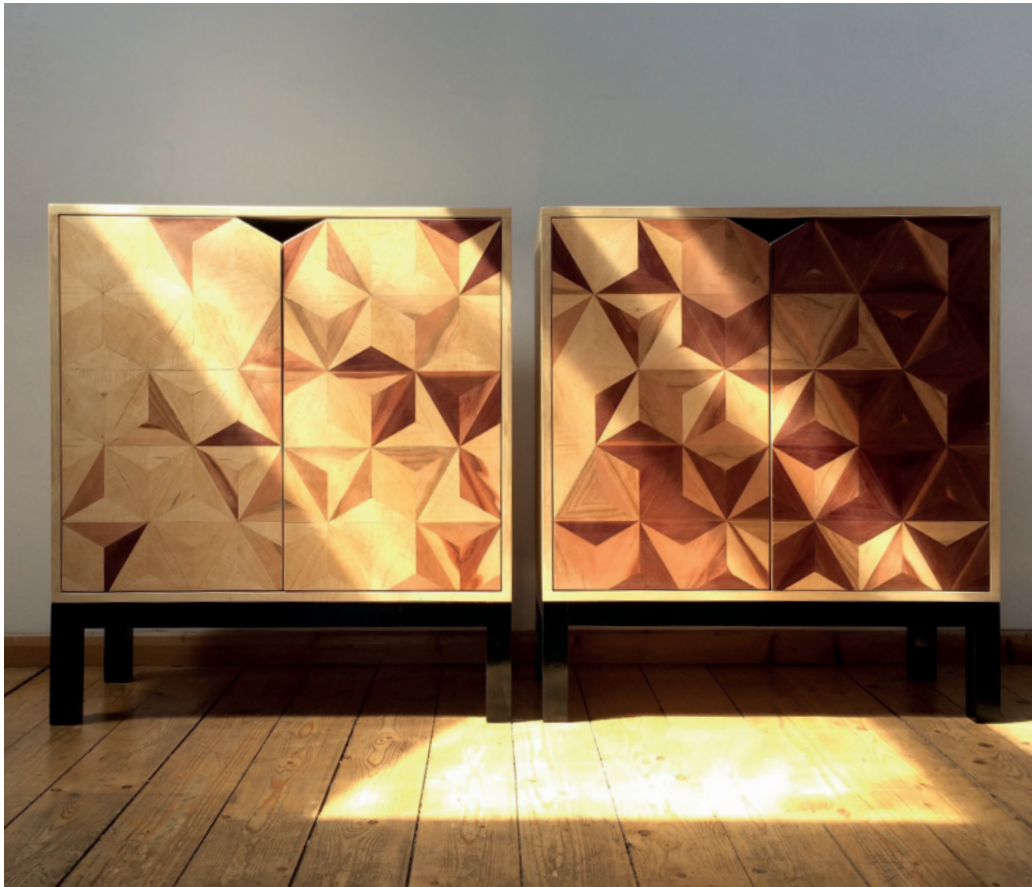
Describing his approach to furniture making, he says: 'I want the provenance of the materials to be clear, and the hand of the maker to be evident in my work.'

THE BENEFITS OF A SCHOLARSHIP

In 2019 Jack received a scholarship from the Queen Elizabeth Scholarship Trust (QEST), an organisation which aims to sustain vital skills in traditional and contemporary crafts and contribute to excellence in the British craft industry. Jack used this funding to pay for a fine furniture design and making course at Williams & Cleal Furniture School in Somerset.

There he studied traditional and contemporary furniture techniques, broadening and deepening his knowledge of the craft. He was then able to return to London and apply this new knowledge to his thriving furniture business.

jackrelton.com
[@jack_relton_furniture](https://www.instagram.com/jack_relton_furniture)



WOODWORKERS AND THE QUEEN ELIZABETH SCHOLARSHIP TRUST (QEST)

Over the years many other woodworkers have benefitted from a QEST scholarship. In 2019, wood sculptor Eleanor Lakelin became a QEST Turners' Company Scholar. The scholarship supported her ambition to develop larger scale forms. She was invited to the US to meet artist Ursula Von Rydingsvard and sculptor Mark Lindquist, to explore the creative and technical challenges of her ideas. She also completed a course at the Art Academy in London to experiment with methods for figurative and abstract sculpture at scale. QEST Carpenters' Company Scholar Philip Walker is using his funding to finance his training in carving techniques, gaining a greater understanding of tools, equipment and related processes. Woodcarver Amelia Crowley Roth was supported by QEST in a PG Diploma in Historic Carving. See the following page for examples of their work.



PHOTOGRAPHS COURTESY OF JACK RELTON/QEST





Wood sculptor Eleanor Lakelin is a QEST Turners' Company Scholar

PHOTOGRAPH BY ALUN CALLENDER/COURTESY COCKPIT ARTS



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QEST SCHOLARSHIP APPLICATIONS

QEST offers scholarships of up to £18,000 for the training and education of talented craftspeople. For each successful scholar QEST will also fund a place on a Professional Development Programme, run in partnership with Cockpit Arts.

The scholarships are open to any UK resident aged 18 or over who would like to improve their craft skills. QEST welcomes applications from all talented craftspeople, regardless of race, gender, sexual orientation, religion, disability and nationality. It particularly wants to encourage those with protected characteristics that are under-represented in the craft sector to apply.

The funding supports traditional college courses, vocational training or one-to-one training with a master craftsman, and can also cover some additional costs including transport, equipment and materials.

The latest round of applications will be open from 11 July to 15 August.

For more information about applying, visit: qest.org.uk/apply/scholarships/

Support is available for dyslexic applicants – for more information email: katy.neusten@qest.org.uk



Frame carved by Amelia Crowley Roth

PHOTOGRAPH COURTESY OF AMELIA CROWLEY ROTH/QEST

Philip Walker's training is funded by QEST



PHOTOGRAPH COURTESY OF PHILIP WALKER/QEST

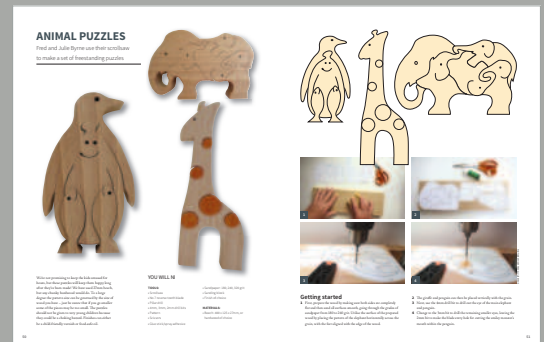
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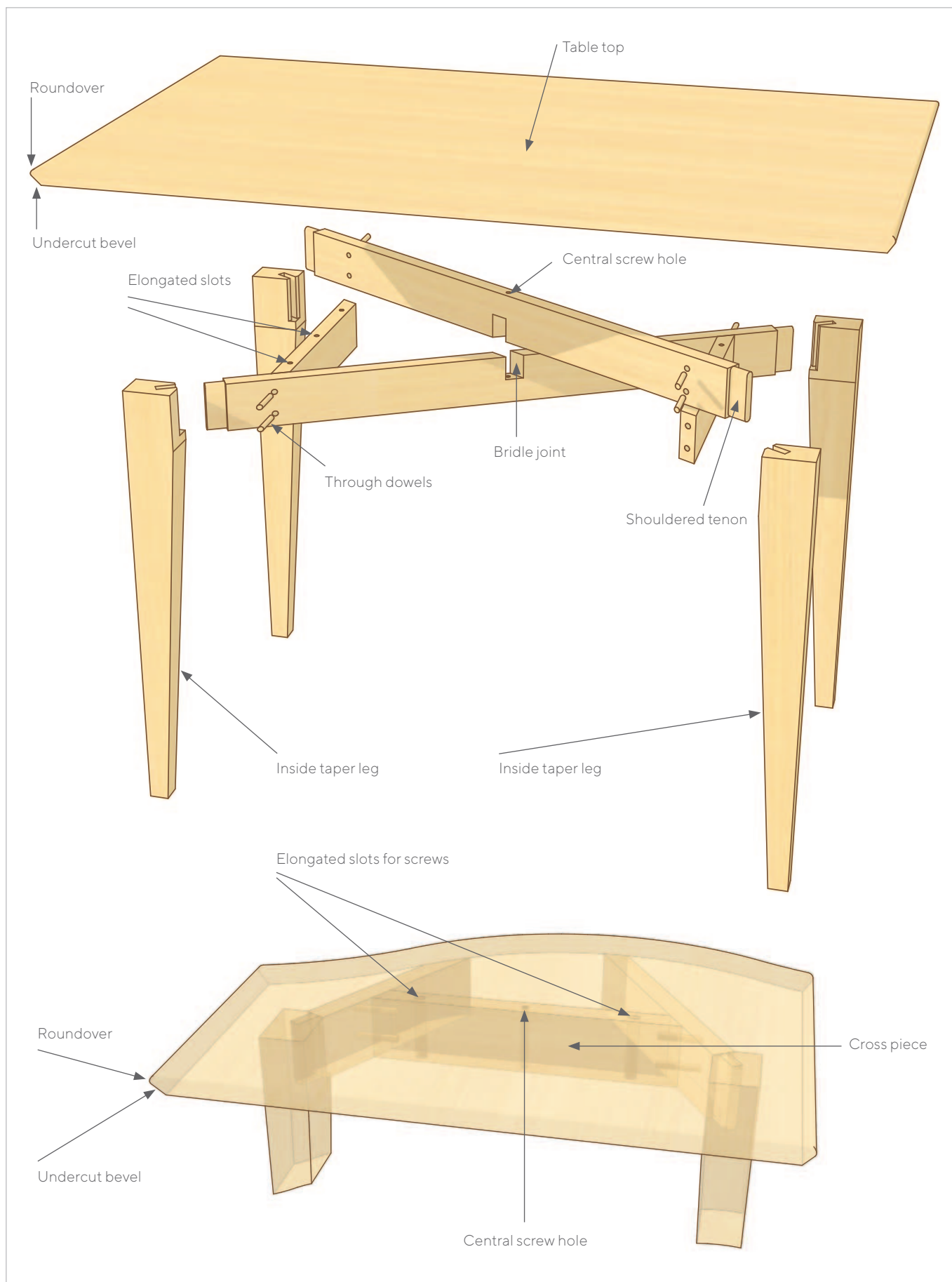
OAK KITCHEN TABLE

JOHN BULLAR MAKES A MODERN-STYLE DINING TABLE FROM SOLID OAK

I was asked to design and make an American white oak table for a kitchen-diner. Unlike a lot of solid oak furniture, this table had to be light in weight for easy repositioning, as well as being slim and unfussy in style without awkward rails at the sides restricting leg space.

The construction is minimal, comprising just four legs, four rails and a top. For the angled joints I used a router with a frame mortise and tenon jig, but this is not essential as I will explain. The other work is done with a biscuit jointer, saws, a plane and a chisel.







PHOTOGRAPHS BY JOHN BULLAR

TABLE TOP

1 Solid wood table tops look simple enough and are straightforward to make, provided you plan well and start with the right wood. Straight-grained American white oak comes in random widths which need arranging for good appearance, and with no sapwood showing on top.

2 After planing all the boards to a smooth surface and an even thickness, they are edge-jointed as matching pairs using the longest plane you can find. By clamping the boards together and planing them as a pair, any slight accidental tilt of the plane will cancel out. The idea is when you flip one board over to stand edge-to-edge on the other one, they will meet flawlessly. You may need to repeat this edge-planing a number of times until, with a light behind the wood, there are no gaps visible.

3 I marked and cut a line of biscuit joints down each pair of edges. Biscuits make life easier when you are edge-jointing table tops. Ideally, if the edges match well, most of the strength comes from the glued butt-joint between the boards' edges. The biscuits, however, hold the boards in alignment for the glue-up, and they give the joints belt and braces security.

TAPERED LEGS

4 The legs are made from similar oak board to the top but laminated in pairs to double thickness. This avoids using 50mm oak, which often has checks and cracks in it when it has been kiln-dried. After cutting, planing and thickening the board, I cut the tapers on a tablesaw. Alternatively, a hand saw could do

the job, with some healthy exercise thrown in for free! To check the tapered edges for consistency, lay all eight pieces alongside each other.

5 The tapered leg laminates are glued face-to-face in pairs, then clamped while the glue sets. For convenience and even pressure, I clamped all four pairs at once. PVA glue is excellent for this but you must use plenty of sturdy clamps to ensure there are no gaps.

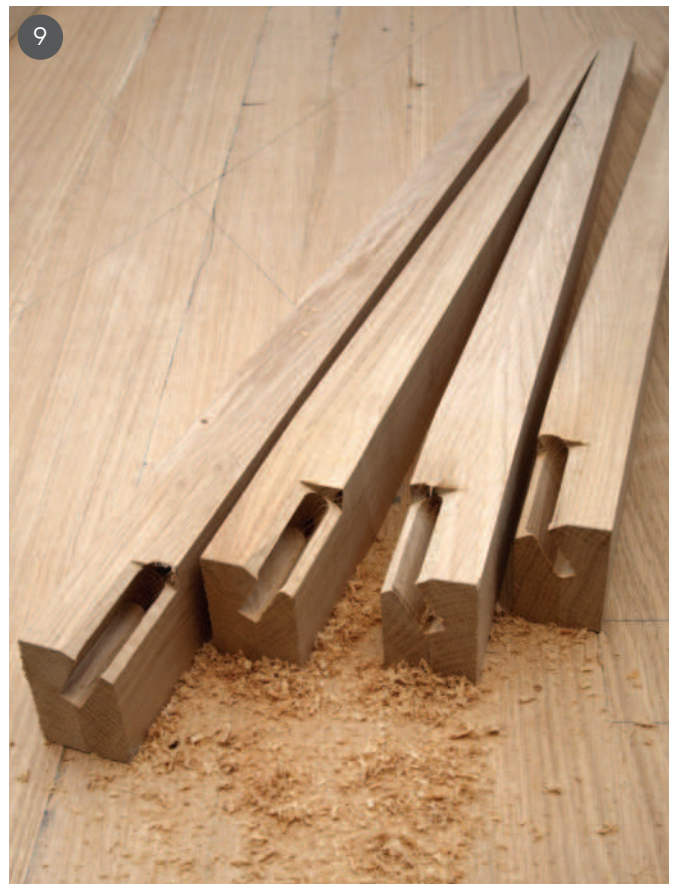
LEG MORTISES

6 Because this table features crossed rails for maximum legroom, their joints into the legs are angled. With the legs laminated and shaped, the next task is to hollow out the mortises in their tops to receive the rails. I used a router with a mortise and tenon jig, making the tilted set-up relatively easy.

7 Before actually chopping the mortise, the shoulder area needs to be prepared on the top of each leg at right angles to the direction of the mortise. The router jig made this task straightforward, or you could do it carefully with a tenon saw.

8 To gain the maximum strength and resistance to twisting, I made the mortise and tenon joints the full width of the rails – this meant the mortises cut through the tops of the legs. These open ends are not visible once the table top is attached.

9 The four tapered legs are prepared with angled mortises and matching angled shoulders. The shoulder areas will be adjusted later to match the shoulders on the rail tenons.





RAIL TENONS

10 The rails need tenons cutting on their ends; I used the router jig for this because it cuts neat tenons with an adjustable fit to the mortises. It is important these joints fit tightly because any looseness at all would cause the leg to wobble.

11 The router jig does have one disadvantage for tenons on long rails. Because they must be clamped vertically, they will not fit beneath the jig mounted on a bench because it is too close to the floor. There is a pit in the floor of my workshop, which is handy for awkward jobs like this. Alternatively, you might mount the jig on a raised platform, or else saw the tenons with a tenon saw or a bandsaw.

12 With the tenons cut on the rail ends and individually trial fitted in the mortise sockets on top of the legs, it is time to trim the ends of the shoulders so the rails will fit the legs without unsightly gaps.

13 Each tenon is fitted to the mortise on its corresponding leg, forming a right angle between the rail and the outside of the leg, with the taper angle on the inside. With each joint individually trimmed to fit, you get the best possible fit for the joint.



HALVING JOINT

14 The diagonal rails cross at an angle at the centre of the table, which needs a halving joint. The marking is done with a knife with the rails temporarily held in place. Using a backsaw and carefully following the marks, this is no harder to cut than a straight halving joint. After sawing, the waste is chopped out with a chisel and the socket base is pared flat.

15 The two rails are trial fitted in the halving joint. It must not be tight or it will force a curve in the rails. Obviously you don't want it to be sloppy either but, in service, the fixings to the table top take any strain off this joint.

GLUE-UP RAILS AND LEGS

16 The mortise and tenon joints are glued up and clamped while the glue sets. I find band clamps ideal for this type of job as they don't force the angles of the legs out of alignment.

FRIENDLY EDGES

17 The table top needs a smooth, friendly edge and corners which can be shaped with bearing-guided router cutters. In line with the style of this table, I chose to shape a bevelled edge underneath, and a quarter-rounded edge on top to give a clean look and feel.





18

RAIL SCREWS

18 Finally, the rails and legs are screwed on to the underside of the table top. The clearance holes for the central screws are round, while the outer ones are made elongated by drilling two holes side by side. This leaves room for changes in width of the table top caused by seasonal wood movement.

FINISHED TABLE

19 The quadrant on the upper edge rounds the corner of the top to keep it friendly, while the shallow bevel on the underside echoes the taper of the legs.

20 The finished table, which has been sanded and treated with acrylic water-based lacquer. You can see that it has light clean lines for a modern kitchen.



19



20



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CRAFTING ORDER FROM CHAOS

FURNITURE & CABINETMAKING TALKS TO
CHRIS O'DELL, FOUNDER AND HEAD OF DESIGN
AT WOODCHIP WERKS IN TORONTO, CANADA

How did you first get interested in furniture making?

I've always been interested in the design of things – how things are put together and why. I grew up learning by taking broken things apart, fixing them and putting them back together. To this day, I love learning and working with my hands. Creating has always been a part of my life.

How did you train?

'YouTube University'. It sounds silly, but a lot of my design, joinery, build process and detail work, as well as tool selection and set-up, all came from a constant need to know more and learn. Online, community-style learning is very powerful and helped me at every step. It still helps.

What was the first project you completed?

When I first started woodworking I had no access to milling machinery, so plywood furniture design was my focus. My first piece was the Wally – a bedside table made from Baltic birch with hand tools and a circular saw. It included half lap and mitre joinery.

What made you decide to set up your own furniture business?

Years ago when it was time to upgrade my furniture I decided, as a project, I would make my own. After friends and family kept purchasing the pieces I made for myself, I figured it was time to design and make for others.

How did you go about it?

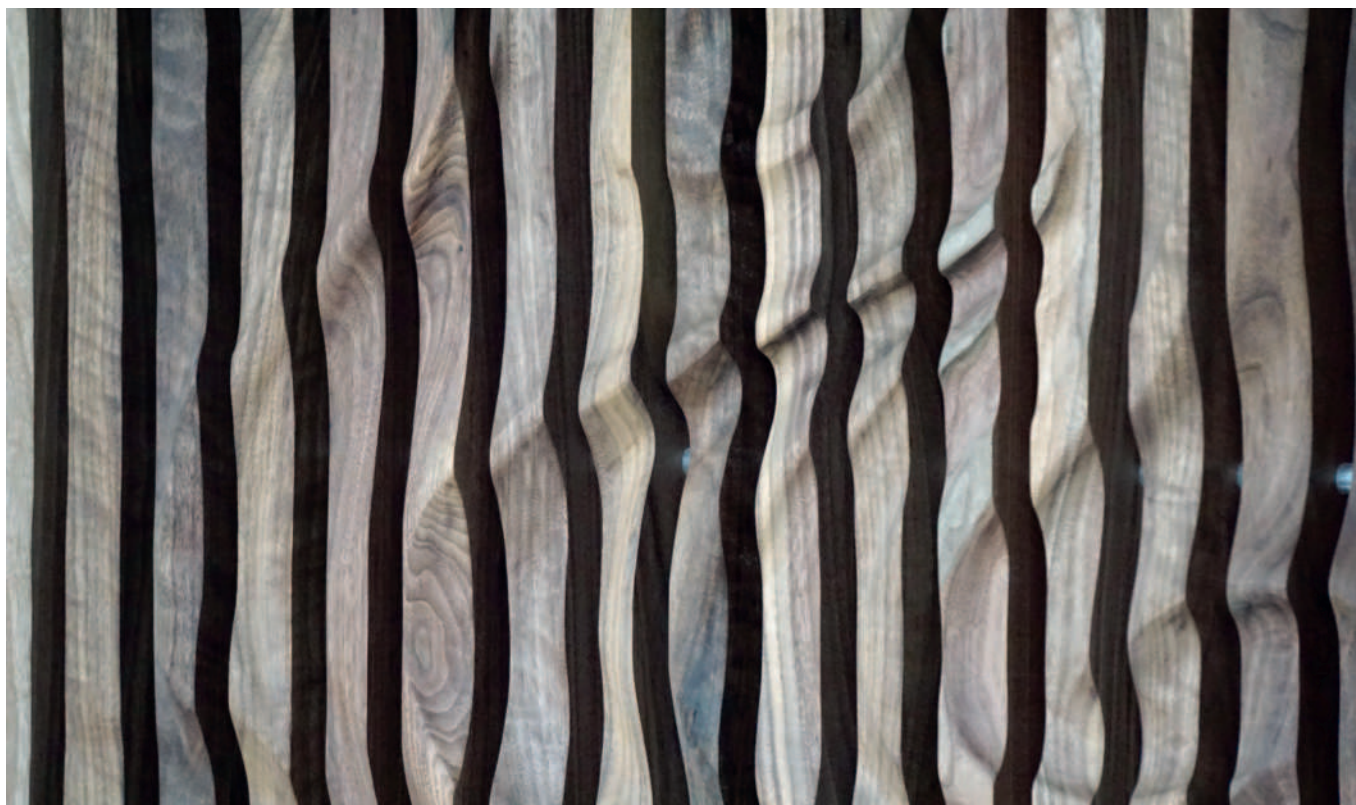
I started in my garage like most of us. But when I decided to do this full time I needed more machinery and space to build. I found a shared workshop that I could rent a worktable in. I got to use all the big milling and finishing machines without having to buy them. It was a really good way to get started without spending a fortune. From there, I built a website and social media presence and got to work.

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

Risk takers. People who will give an idea a shot, knowing it's not common or is out of their comfort zone. Seeing people create something amazing that requires risk-taking is so inspiring to me.

My design ideas come from the way I look at the world. When I'm sitting in a doctor's office, I'm trying to see what kind of joinery the reception desk has. I'm always paying very close attention to all the pieces and parts that the world and life are made of.





Is there an ethos or a guiding principle behind your style?

I would say purposeful or concerted design. I want to make sure every angle, material choice, joinery decision, finish selection, all the lines and feelings my work includes is deliberate. My work, commissioned work in particular, is thoughtful. I want people to take note of the things I took note of about their personality or their home and feel a kinship to the piece or pieces.

Tell us about how you work – what type of tools do you like to use?

I would say I'm a bit different than most. Very rarely will I plan or draw out design steps to refer to. I mainly go on feeling. I build in a layer cake kind of way. I think through the order of things and usually start with whatever task is going to be the most fun at the moment. I really enjoy the negentropy from the milling process. Turning rough disorder into smooth and shaped order is really rewarding. The tools I think are most important are measurement tools – rules and slides. They are key to every project, big or small.

Are there any you avoid?

Hand planes. I feel like the precision of the detail I shoot for can always be better accomplished using tools that offer more accuracy.

Tell us about your workshop – what is the set-up, how long have you been there and will you be staying?

My shop is about 1,200sq ft and was just a storage unit when I found it. I spent the first two months building it out, from the electrical to the dust collection, with full 8 x 10ft cleat walls. Eighty percent of my tools are hanging on a cleat wall behind

my worktop. Drawers and cupboards are where tools go to die. Cleat walls are a way to organise yourself that also allows your tool collection to grow and move with whatever project you're working on or whatever task is at hand. Because the projects I take on can vary in scale, that kind of flexibility is vital. Besides my SawStop [tablesaw], all my milling machines are on castors.

How does your design process work?

It typically starts with a pencil and paper, but some ideas have been birthed on pizza boxes and napkins. If the work is a commission, I always want to see the space it will live in and meet the client I'm building it for. I can learn a lot about a person's taste and overall spatial mood from a quick visit. Plus, I really like meeting new people and hearing their stories. Once I have a better understanding of the space and the person, I'll either create a detailed 3D digital rendering or head straight to the shop to begin creation.

Which woods do you most like working with?

I really love walnut. The richness of the grain and colours lend themselves perfectly to fine furniture for any space. It also smells great being cut in the shop.

Do you work with other materials as well?

I work with everything from high density foam to metal, acrylic, glass and many more. For me, wood is the most easily manipulated while still being incredibly strong and long lasting. I find wood to be the most satisfying as it has, to me, the most use cases. You can make a bed, a bathtub and a toothbrush from the same tree.





What sort of finishes do you prefer?

I find Danish oil to be the finish I turn to most often. It has fantastic durability while maintaining a natural look and feel. For shop furniture and storage I use a paste wax. It's very durable and quite inexpensive, plus it's great for slideless drawers.

What is your favourite project you have worked on?

Copperfield is a hand-carved, slated partition wall made from walnut. The 20 nine-foot slates each sit almost an inch apart, creating a beautiful but also useful partition. This piece was my favourite because it really forced me into a high density learning headspace. Functional art was a daunting target for me. Getting to experiment and flex my creativity with this one was really motivating. It was hands down the most detailed and time-consuming piece I've ever done.

What is the most challenging project you have worked on?

I would say Crescendo, the wall-mounted baby grand piano bar. [See *F&C* 302 for a feature on Crescendo.] Woodworking is an additive process: we make parts and add them together to make a whole. Crescendo, however, was more reminiscent of sculpting – I needed to remove material and parts without breaking or ruining the piece. And in this case, removing all of the components including the 140-year-old finish without damaging the veneer was very challenging. Although the most challenging, it was a great experience and I learned a lot about how I look at our craft fundamentally.

I also learned a lot about my own capabilities and how far I can push them from that project. Most of all, it was humbling. The keyboard alone had over 800 separate handmade parts. I can't even imagine how craftsmen in 1885 were able to build a piece like that without modern electric tools. It was so fulfilling to discover that kind of craftsmanship in a hands-on way. Every

part of that project, from finding the piano and getting it to my shop, through all the deconstruction and design to the simple order of operation, was out of my comfort zone. I learned and grew with each step.

Would you rather work with challenging found materials or with more simple wood and boards?

It really depends on the desired outcome. I will always try to use reclaimed material or repurpose something if I can. Every time. However, in certain cases, like if I need to be sure something can handle the weight of a person or people, using stock, hand-chosen boards gives me the confidence of knowing what I am working with.

Do you prefer working commissioned work or your own collection?

I would say commission work because I love to meet people. Getting to create a solution that is unique every time is the best way to grow as an artist. It also helps me expand my problem-solving skills. This is the foundation of my work. It's also why I've never done the same piece twice. I would say 95% of my work is commission-based. Since I started Woodchip four years ago, I haven't really had any down time. I don't see it changing any time soon, however I do love the chances I get to just make and design for the sake of it.

How do you go about working on commissions?

It really depends on the client. I would say most people aren't sure what they want so a full-time, commission-based maker is as much a consultant as they are a designer or builder. Walking clients through the decision-making process – and the cost – of custom work is mandatory. Some clients want the surprise of something conjured up in my mind based on their few



requirements. In other cases, clients have designed and imagined their dream piece of furniture or decor. My job is always to bring the design into reality based on physics and tolerances of the piece and where it will live. I work heavily with the client to keep their dream alive while filling in any detail or augmentation that I would know but a client might not.

Do you draw a boundary between furniture and art?

Furniture is utility in physical form. It can be beautiful but it has to be useful. A dining table top stored standing up in a basement isn't furniture to me. Art, on the other hand, really only has one defining characteristic: thought. The amount of time I think about something or the feeling I experience in and around something will determine whether I think it is art or not. Its purpose is to lead your mind down a path. The path is your own, but the point is to pay attention to the journey. A piece of furniture or decor can be art if it provokes you to stop and look for a while, if it breeds contemplation, if it makes you feel. For me, art is a mirror for your mind and soul, it helps you look inward. Furniture can be art, but it must have physical function.

What are you working on now and next?

Another piano deconstruction, actually. A person who came across the article about Crescendo sought me out to transform their grandmother's heirloom, but broken, piano into something new. We decided to repurpose the piece to create a dining table that she can enjoy and use more regularly. Despite not having had any real experience with pianos before Crescendo, I've really enjoyed tackling the challenges it has brought my way. Next up, I will be settling a bet I have with myself. I firmly believe that the way shop furniture is built by a lot of us can be super useful and beautifully elegant, and contend for spots in our homes. As I mentioned, my shop is built on a French cleat system. This year,

I will be incorporating this concept into fine furniture making for the home. I've done a few successful projects this way and want to continue the trend.

Where do you see your work going in the future?

I want as many people as possible to enjoy my work. I'd love to try creating public art installations – bigger projects in more public locations – and to continue to create both furniture and art for everyone.

Have the Covid-19 pandemic and the lockdown affected your business?

Absolutely. At first, many people were mandated to work from home and needed to update their space accordingly. I couldn't keep up with all the extra work. This past year, however, was much slower. And while it was a trying time for most small businesses, it did afford me the time to work on personal, passion projects like Crescendo, projects that allow me to make for the sake of making, which I'm thankful for. I think the long-term impacts of Covid-19 will apply to the kind of projects people enquire about. Working from home doesn't look like it's going away. People are seriously contending with the need to add a room or office space to their home that was never considered before. This makes for some exciting furniture and spatial design times ahead.

What do you do when you're not working?

Any and all things active. Sports and being outdoors are key for me. Also chasing around my parrot, Aldo. I've had him for almost 10 years. I love birds.

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▲ **LOT 329 • £7,012**

A Regency mahogany breakfront bookcase, made circa 1820. It features a moulded cornice above four gothic pointed arched Astragal-glazed panelled doors, nine short adjustable shelves and four long adjustable shelves, over four mahogany-lined frieze drawers, with four panelled doors below.

▼ **LOT 132 • £5,355**

A Regency mahogany collector's side cabinet, made circa 1815. It has a concave form and includes eight short drawers with old paper linings.



▲ **LOT 125 • £3,570**

A William and Mary walnut, oyster-veneered and sycamore-banded chest, made between 1690 and 1705. This piece was part of the collection of Ralph Edwards (1894–1977), a British art historian, academic, connoisseur, author and collector. In the 1920s, Edwards published *The Dictionary of English Furniture*, the second volume of which includes an illustration of this chest.

▼ **LOT 358 • £7,650**

A French late 19th-century Empire Revival gilt bronze mounted mahogany bureau a gradin (writing table), together with a closely matched French late 19th to early 20th-century bergère armchair. Both pieces are in the Empire Revival style, which emulated the designs of the Napoleonic era.



LOT 296 • £37,750

This lot achieved the highest price in the auction. It is a mid-19th-century 'exhibition quality' kingwood, tulipwood, walnut, rosewood, ebony and boxwood mosaic-inlaid and parquetry centre table made by Johann Martin Levien (1811–71). The tilt top is inlaid with 19 overlapping and concentric six-pointed stars, which are bordered by entwined and interlacing geometric bands and hexagonal tablets. The circular surround is encompassed by entwined and interlacing chequered strapwork inset with quarter veneered cruciform and star-shaped tablets, and each cruciform tablet is inlaid with a central four-pointed star. The panelled mahogany block and concave triform baluster shaped column with three projecting elongated scroll angles terminate in three scrolled outswept legs and recessed ceramic castors. The underside of the top and the top of the block are both stamped: 'Levien's, Davies Street, Grosvenor Square, London'.

The table was sold by the Trustees of Buckfast Abbey in Devon, where it had been part of the collection for at least the past 75 years. A similar design for a 'mosaic table' made by Johann Martin Levien was listed in the catalogue for the 1855 Exposition Universelle in Paris.

Born in Barth on the Baltic Coast, in present-day Germany, Levien served as an apprentice to a cabinetmaker there, before travelling extensively throughout Europe. In 1837 he established himself as a cabinetmaker in Brazil, before moving to Wellington, New Zealand in 1840. During his time there, he expanded his use of different timbers by sourcing examples from forests in New Zealand, which until then had largely remained untouched. He later moved to London, where he set up another successful firm. Despite Levien's prolific output and wide renown, very few recorded or stamped examples of furniture made by the Levien firm are known to survive.





PHOTOGRAPH BY RADHA SIVYER

KAI-NO-KUCHI TSUGI – X-SHAPED SHIP END JOINT

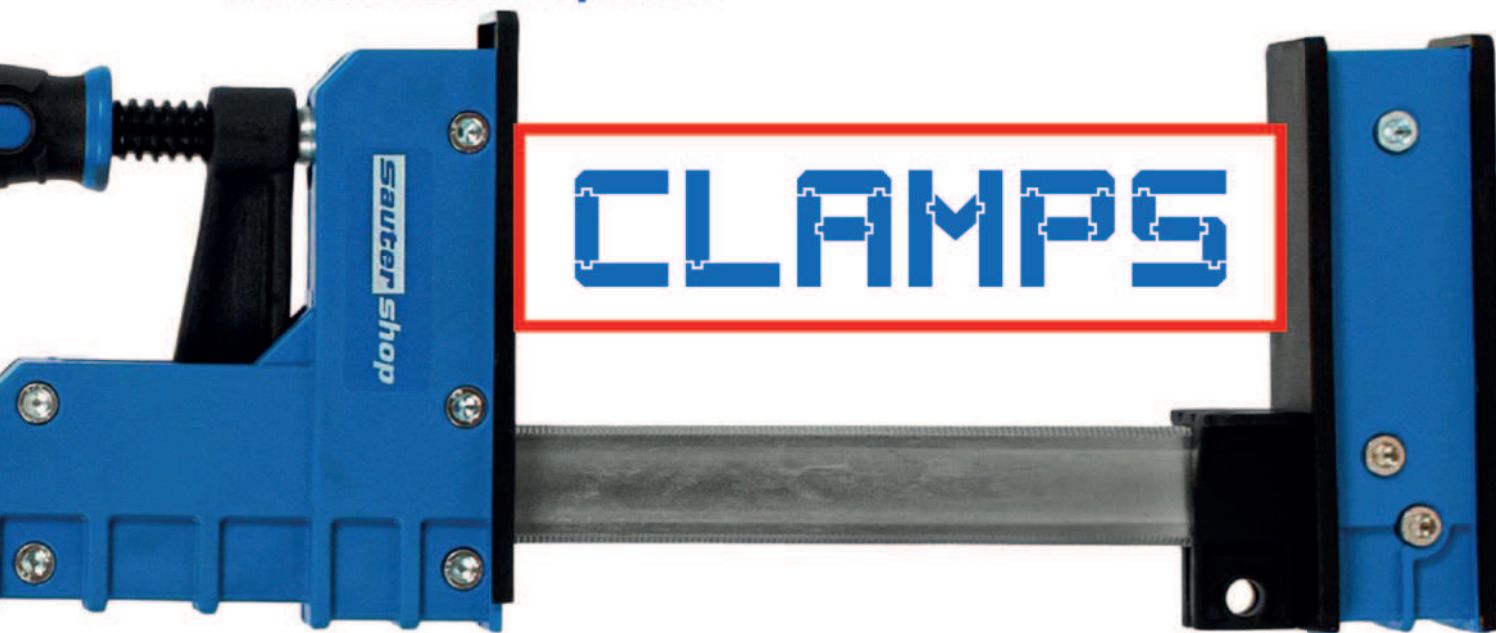
RADHA SIVYER TALKS US THROUGH THIS TRICKY TECHNIQUE,
WHICH INVOLVES 24 DIFFERENT CONTACT POINTS

Traditionally used on main columns of towers, this joint proved to be deceptively difficult to make. While the principles are straightforward, maintaining an even depth across the 24 different contact points is what ended up taking the majority of time. I started by cutting the long flat sections using a ryoba saw, then cleaning the edges using a chisel. Once both male and female parts were cut, I went back and cut in the recesses and adjoining tongues. These tongues secured the pieces together by adding additional points of contact, as well as giving it a lot of reinforcement, making it completely rigid. This joint is a great practice for controlling your saw while cutting long lengths, as well as refining a careful chisel technique.

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