

FURNITURE & CABINETMAKING





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WELCOME

‘Feel the fear and do it anyway’, wrote psychologist and self-help author Susan Jeffers in her acclaimed 1987 bestseller of the same name. Sometimes projects, business and life in general can feel daunting – so in this edition we meet some of the makers who’ve felt that furniture fear, and done it anyway.

Sandy Buchanan left behind a high stakes career in the oil and gas industry to build a more sustainable, meaningful life for himself and his family. Working almost exclusively with non-commercial timber, he celebrates imperfections in the wood, creates furniture that connects back to its natural heritage and keeps his negative impact on the planet to a minimum.

Radha Sivyer made it the final of Channel 4 show *Handmade: Britain’s Best Woodworker*, which gave him the confidence to set out on his own, creating unique pieces with elaborate joints, carvings and intricate details after just a year as an employed junior cabinetmaker. Now in his own workshop, he can pay the bills from what he earns working with wood – he’s made it.

For those of you who want to try something new but are looking for that little bit of guidance, we’ve got plenty of how-tos in this issue. Try out some unusual timbers with Kevin Ley; use steam bending to modify a piece of furniture with Oli Renison; turn table legs with Richard Findley; carve a Louis XVI rosette with Johan Roudy and make a spliced puzzle joint with John Bullar. Plus you can break through those business barriers with advice from Stephanie Lam on embracing fallow periods in your creativity, and grow your operation with our guide to employing an apprentice.

‘It is so easy to look at something and just feel overwhelmed by a project. The truth is you just have to start chiselling or sawing and make mistakes. If you are too scared to start to make mistakes you will never progress.’

RADHA SIVYER, FINALIST, *HANDMADE: BRITAIN’S BEST WOODWORKER*

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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.



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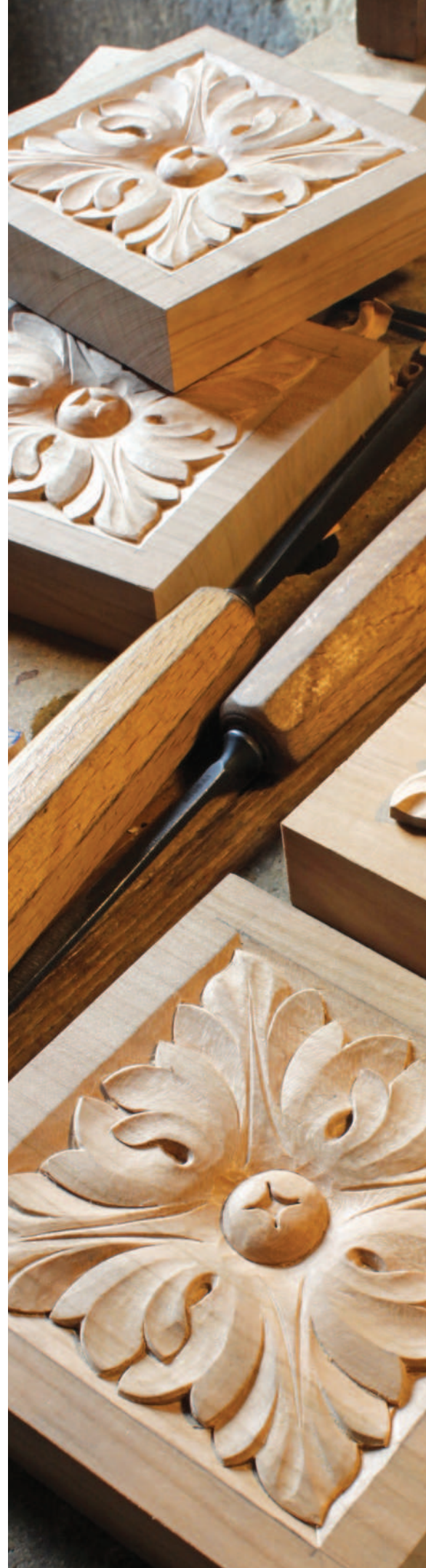
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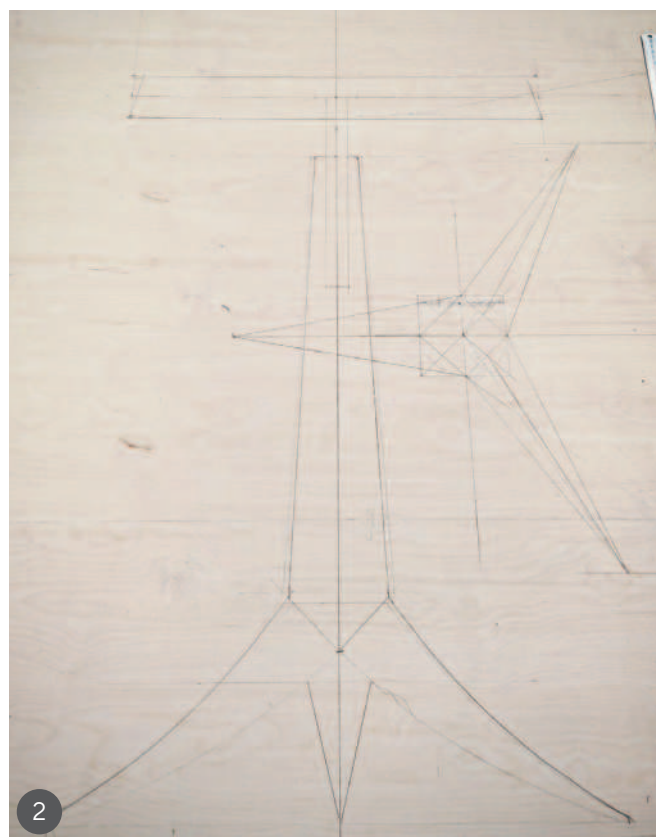
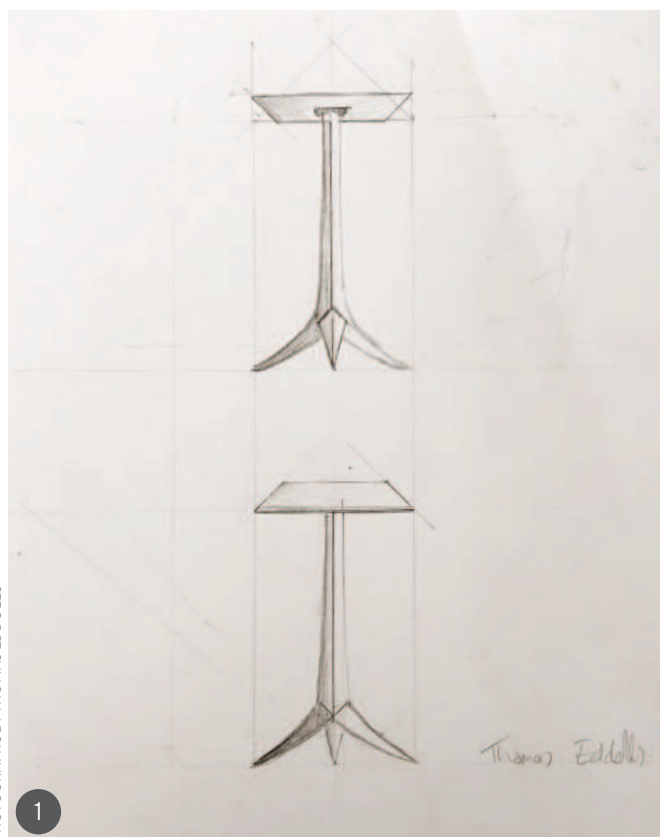
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1 The original sketch of the music stand 2 A full-size drawing was set out on a board before the making process began

CHAPEL MUSIC STAND

THOMAS EDDOLLS TESTS HIS SKILLS WITH THIS ECCLESIASTICAL COMMISSION

A while ago I was approached with an enquiry to design and make a music stand for Solihull School Chapel. The brief was completely open with only some of the functional elements outlined.

It sounded like a wonderful project and, having never made a music stand before, I was enthusiastic about trying my hand at making one. After researching the interior of the chapel, I started sketching out a rough outline of the piece. After maybe three or four drawings in my sketchbook, I quickly arrived at a simple and effective concept. 'Simple' on paper, of course, but the reality of making a piece often proves to be much more challenging.

THE DESIGN

My design consisted of a trefoil leg structure and a tapered upright stem with a fixed angle reading surface of 12°, which was to be adjustable in height.

I was happy, it looked good on paper and I felt as though it would make a complementary addition to the chapel. I forwarded the design to the client who showed it to the

benefactor and, happily, we were all in agreement that it would make a great addition to the chapel. I was pleased to have won the commission on the first design attempt.

Owing to other work commitments, the project would have to wait for a while and after a year in the crazy maelstrom of busy life, I finally had the opportunity to produce the piece. This was where the real work was to begin as I had to make the concept work in reality.

I decided the first thing to do was to set it out full size on a board so I could get a feel for the piece and a better visualisation of how it would look and how I would achieve it.

In my presentation drawing the central column was shown square in section and on setting out it soon became apparent that working three legs into a four-sided footprint was going to be a challenge. The other issue that immediately stood out was how to achieve the housing for the adjustable height column.

Still, solving problems is what furniture making is all about and so, with some trepidation, I began to select the timber for the project. I chose oak for this ecclesiastical item.



- 3 Channels were cut into the two book-matched sections 4 Loose oak tongues were added for reinforcement
 5 Hand cut bird's mouth and mating front facet 6 A mock-up assembly helped me to visualise how the piece could come together
 7 I later did a dry fit of the column onto the dowels 8 A mock-up of the stem and reading surface allowed me to assess things further

MAKING THE CENTRAL COLUMN

The first step I took on the making process was to produce the central column. It was here that I had to resolve the column/housing issue and I thought that the best way to do this was to cut out a channel in two halves and mate them together to create the finished recess.

That being so, I needed to ensure that I had an excellent figure match – basically I did not want this join to be overly apparent, in order to keep a clean look and feel to the piece. At over 100mm thickness at the base I did not have the material to simply cut the section in half and re-joint it back together to give the required look, so I had to approach the problem from a different angle.

Within my available stock I had a couple of board ends of 50mm thickness with lovely straight rift-orientated grain. I realised that I could select two sections and book-match them together giving me a nice, clean straight-grained appearance on all four sides when mated.

After converting the board ends to the required dimensions and leaving them overlength, I could begin to look at the channelling now the important detail was resolved.

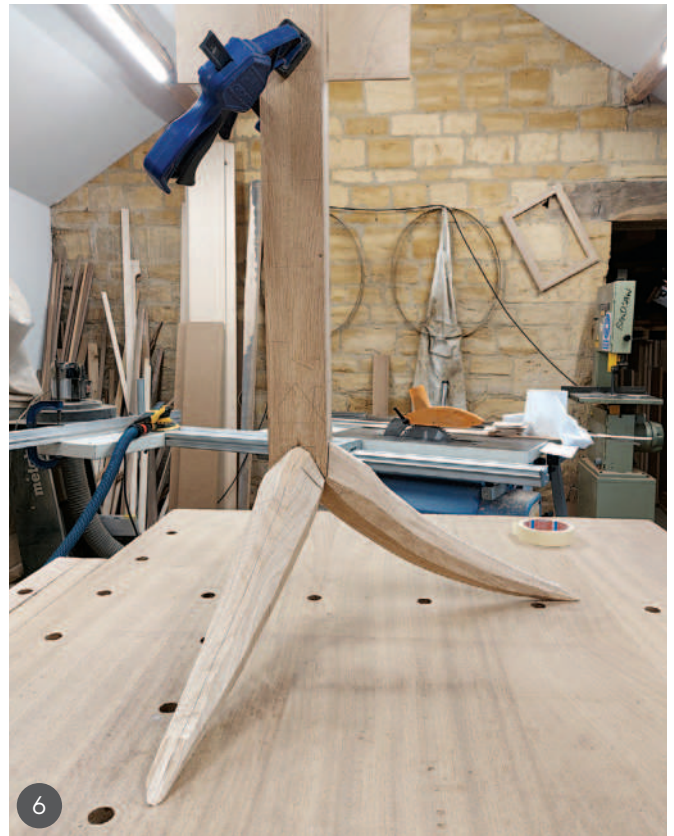
I had been pondering how to cut the channels into the workpieces, thinking that a grooving cutter set in the spindle moulder would produce a nice, clean accurate cut but stopping the cut would be an issue. In the end, as is often the case with

components laid out on the bench, it soon became apparent that I could simply rout out two grooves, carefully working off the same face before mating.

Eventually the column would be tapered, but at this stage with everything straight and square I could work on the sections with relative ease. After grooving out for the stem and looking at the material that would be left after I had tapered off, I decided that there was a potential weak point in the future of the piece, so I routed in some loose oak tongues to reinforce these areas. I also reinforced the base of the column with biscuit joints for strength and positive location.

Next, it was time to glue the two halves together. A really important point at this stage was that when the two halves mated I was left with an accurate square channel to accept the stem. The fit here would be very important but as long as I had been careful and meticulous in my operations, which I was confident I had been, things should go well.

I glued up with Titebond 2, a favourite of mine. I was mindful that any squeeze-out into the interior channel would be difficult to clean off once assembled so I only brushed just enough glue on here. This was a bit tricky with the small 2mm tongue and groove sections so close to the edge. I then clamped the jointed sections together and left the assembly to cure overnight.



MAKING THE LEGS

The next stage was to produce the legs and create the tricky three-way joint into the column. I wasn't entirely sure how to go about things and, after some thought, I decided to trial the joint on the over-length workpiece itself.

Looking closely at both the concept drawing and the technical set-out, I felt I needed to bird's mouth the two rear legs in and mate the front leg to a straight facet.

Carefully marking out the cuts on the workpiece, I sawed out the waste by hand with a fine Japanese crosscut saw. Now I could see a real-life interpretation of how things would interact and think about the technical challenge of creating a strong mechanical joint to the sections.

I then planed up the rear legs in thick sections and, using the dimension saw, I cross cut the mating fit onto the end grain, carefully handing each one to the required splay necessary to achieve the tidy three-point footprint laid out on my full sized rod.

At this point I was still feeling my way into how things were going to interact with each other so I mocked the components up to help me visualise the project as it was and how it would progress. By simply using a two-part superglue to temporarily hold the joints together, I hung the beginnings of the piece from a handy beam stationed above my bench top.

With the back two legs looking reasonable I rough milled the front leg out and after cross-cutting the joint area on the end grain I loosely bandsawed the shaped curvature onto it.

It was at this point that I decided I needed to address the issue of creating an actual working joint, opting for dowels which I marked out onto the workpiece and drilled out using the pillar drill with the bed canted right over to the appropriate angle. Then, using dowel markers and bearing in mind the legs were still oversized, I transferred the points on the legs so I could drill them out with a cordless drill.

I could now sit the column dry on the dowel locations and get an overview of how it was coming along. To see things better I tapered the column off by simply 'dropping on' the surfacer working over the cutters in passes until I was nearly kissing my markings out.

To finally see the overall form in its entirety, I opted to mock up the stem and reading surface, milling out the upper components and assembling everything dry before setting out down on the floor to have a good look all round. After doing this, I felt the column needed a little bit more of an accent, so I slightly relieved a mild curve on all four sides by hand with my compass plane.

THE FINAL CONSTRUCTION

Happy with things overall, it was time to look at the final construction. I had always had it in the back of my mind that wooden dowels would never stand the test of time for this piece, so I decided to work a threaded steel bar into the dowel joints which I would permanently fix with epoxy resin. I used West System epoxy, thickened up with colloidal silica increasing the viscosity of the resin so that it stayed local to the joint. I reamed the holes slightly over-sized by a millimetre at 11mm for a 10mm threaded section; the resin would take out any discrepancy here which also made it slightly easier to seat the leg joints neatly.

With the steel joints in place, I hand fitted the legs into place carefully refining things as I went along until it was finally time for the glue-up. This was quite a tricky proposition as I was unsure how to get pressure onto the points where it was needed. In the end I made a base board with notched-out stops set out to the footprint which I could jack down off the beam using wedges to accomplish the glue-up. I worked in two stages, first the front leg and then the back legs, which were done a day later.

FINISHING

With the column and legs fully assembled – admittedly after an amount of curious head scratching – I was now quickly able to finish the piece off. With the rest of the components already finished, it was now a question of tying them together.

Firstly, the adjustable stem. This would need to be a piston fit yet glide up and down with ease. Despite my finest efforts at not creating any squeeze-out in the recess, there was a little bit. I dealt with this by using a combination of long paring chisels and, for the extremities, abrasive papers adhered onto a milled-up section of timber to finish off the fettling. When it was lubricated with finishing paste wax, the stem happily glided in and out without any play at the end of my efforts. I angled the top of the stem at the required 12° and let in a threaded insert which I could bolt into through an oak mounting plate to secure the reading surface with brass screws.

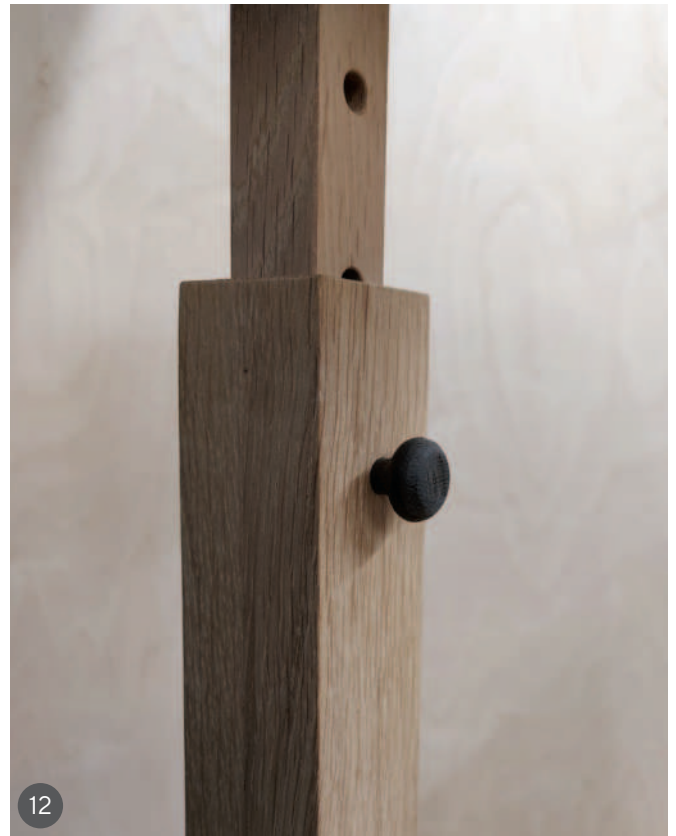
Finally, I needed to incorporate a system of stopping the height adjustment. I turned to my antique lathe and produced a sweet little bog oak pull to position in a series of drilled location holes.

I was nearly there and after a final clean-up, I oil finished the piece, watching the rich colour appear underneath the oil laden rag, building up a finish between three coats.

Eventually I delivered the piece to Solihull School Chapel where it was gratefully received. I hope it will provide many years of faithful service.

9 For durability, a threaded steel bar was added to the dowels 10 & 11 The legs were hand fitted and glued-up in two stages

12 The stopping mechanism was turned from bog oak 13 An oil finish brought out the rich colour of the oak





WALNUT SIDE TABLE

KEVIN LEY DEMONSTRATES HIS FLAIR FOR
UNUSUAL TIMBERS WITH THIS SIDE TABLE



PHOTOGRAPHS BY KEVIN LEY

This table was a speculative piece that I made to sell at a furniture show. I wanted to make something that would showcase my use of unusual timbers.

I came up with this side table which, though it is a substantial piece, is easily transportable, does not use a lot of timber and gives the opportunity to show off some decorative pieces of walnut to maximum effect. A side table is a flexible piece with a myriad of uses. Adding three drawers under the top increases that flexibility and makes good use of the storage space in the frame. I used a decorative timber in the drawer fronts with a contrasting timber for the drawer casings to accentuate the dovetails. A decorative panel in a frame forms the top.

The legs were tapered for a lighter, more elegant look. The taper was applied from just below the frame to leave a straight piece for the sides, front rails and back to join to the legs, simplifying the joints.

Tapering only the two outside faces of the legs gives a very 'pigeon toed' look – tapering all four faces is quite balanced and has its place but I chose to taper the two inside faces only. This doubles the angle of the taper – in comparison to tapering all four faces – thus increasing its effect. The effect is further increased by its very contrast to the still perpendicular outside faces of the table.

I toyed with the idea of stretchers to brace the legs but decided that they would clutter the look and steal away some of the lightness and elegance. Carefully chosen timber and prayers would be used instead!

The soft lustre of an oiled finish would bring out all the figure and beauty of the walnut and burr.

TIMBER SELECTION AND PREPARATION

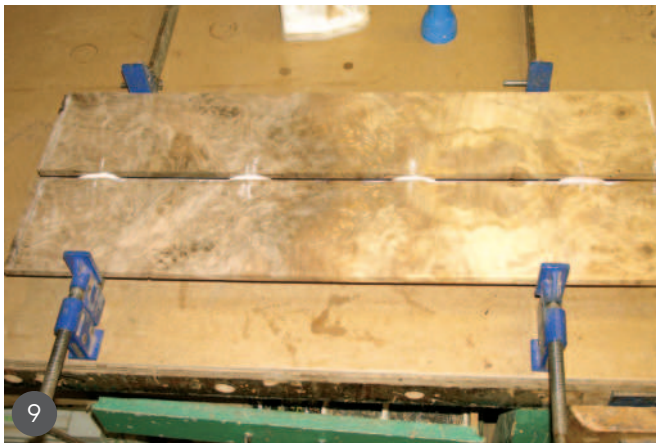
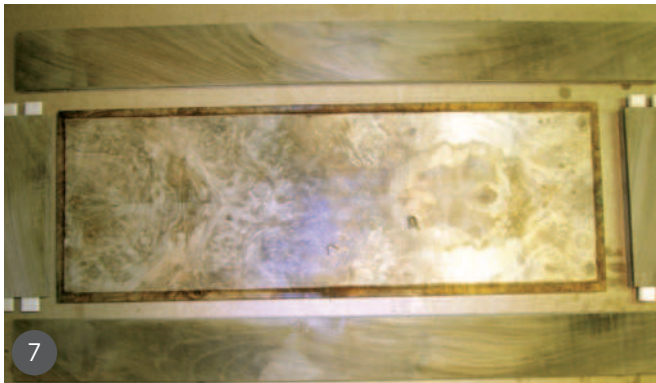
1 I had some walnut and burr walnut which would do nicely for this project. The timber had been bought kiln dried then stored, sticked and stacked in my dehumidified wood store for several years. Well-conditioned walnut is a very stable timber so it was ideal for this table.

2 The timber I chose for the legs was relatively plain but reasonably straight grained. Some nice decorative burr was available for the drawer fronts and could be deep sawn for a book-matched top panel. Sycamore was chosen as the contrasting timber for the drawer carcasses. Figured pieces for the sides and back, and some more straight grained pieces for the drawer frames made up the rest.

3 All the pieces were cut a little over size, faced and thickened then stacked in the workshop to condition during the making.

CONSTRUCTION

4 The legs had been faced and thickened square and were now cut to length. Before tapering the legs Domino slots were cut for the back, sides and front rails. The slots were staggered so that they did not foul each other. A taper jig was cut in ply to run against the bandsaw fence to offset the leg for the correct amount to be removed. A piece of abrasive sheet was glued to the jig face in contact with the leg so that the legs did not slip during the cut.



5 The legs were then hand planed to their final shape, stuck and taped together to hold them while they settled.

TOP FRAME

6 The top frame pieces were trimmed to size and Domino slots cut in the ends. Two Dominos were used in each joint.

7 A housing was cut in the inside edges to take the panel. The bottom of the housing was set at the thickness of the panel to ensure the raised centre was at the same level as the frame.

TOP PANEL

8 A piece of burr had been deep sawn to make a book-matched panel. As it was burr there would be some short grain in the joint

which would weaken the glue bond, so biscuits were used to strengthen it. The panel pieces were faced and thickened and the biscuit slots cut.

9 Glue was applied to the joint and the slots, biscuits fitted and the panel clamped up. Once cured, the glue ooze was scraped off and the panel was then power sanded.

10 A radius cutter was set up on the router table and a cove fielding cut on the edge of the top panel. As this was a table top I only wanted a very small gap between the frame and the raised centre of the panel to maximise the useful area of the table top.

11 The fielded edges of the panel were sanded and finished with



three coats of oil before assembly so no bare wood would be exposed if there was any seasonal movement. Glue was applied to the Dominos and slots in the frame and the top was assembled. A spot of glue was applied to the housing at the centre of the short edge of the panel to ensure any movement was equalised.

SIDES AND BACK

12 The back and sides were cut to size and Domino slots corresponding to those in the legs were cut.

13 Pockets for screws to attach the top, and Domino slots for the drawer runners and kickers were cut in the back. Domino slots in the sides and the corresponding slots in the legs were glued up and the sides clamped to the legs. When those joints had cured,

runners and spacers were glued and screwed to the sides.

DRAWER FRAMES

14 The drawer frames were cut to size and Domino slots cut in the ends of the runners, kickers and front rails. Slots for the runners and kickers were cut in the inside edges of the front rails to correspond with those in the back. Pockets were cut for screws in the ends of the front rails.

ASSEMBLY OF THE LEGS AND SUB FRAME

15 The slots in the back, front rails, centre runners and kickers were glued up, Dominos fitted and the sides clamped to the front rails and back. Once all had been checked for square, screws were driven into the pockets through the rail ends into the legs.



SPACERS AND DIVIDERS

16 When the sub frame and legs had cured, the dividers and spacers were glued and screwed in place using a piece of MDF cut to size to align them.

FRONTS AND BACKS

17 The fronts were saw cut slightly oversize and then machine and hand planed to a tight push fit. Pilot holes were then drilled in the front faces for the pulls.

18 The height of the backs was measured from the base to 6mm below the side height and they were sawn and planed to size. The drawer fronts were used as templates to mark the exact length of the backs, which were then cut.

SIDES AND BASES

The sides were sawn oversize in height and planed to a running fit. They were cut to length leaving 6mm clearance from the back of the frame.

The bases were cut from light coloured birch-faced 4mm ply. They would be let into housings in the front and sides and glued and pinned to the back. Sheet material is lighter and thinner than a solid base, and being glued in all round gives a great increase in strength.

MAKING THE JOINTS

19 Cutting gauges were used to mark the depths of the tails and pins on both faces of the sides and backs, and the end and inside faces of the fronts.

20 The sides were taped together; the top one marked and the majority of the waste for the tails cut out together on the bandsaw, then cleaned up with a paring chisel.

21 They were offered up to their respective backs and fronts and used to mark the pins.



22 The bulk of the waste was removed from the front sockets, and between the pins on the backs using a carefully set up straight plunge cutter on the router table. All were trimmed to exact size with a sharp paring chisel.

ASSEMBLY

23 The inside faces were hand sanded and the joints glued up and tapped home. A sash clamp was used to pull them up tight and force out any excess glue. The diagonals were checked, adjustments made, the backs pinned and the drawers left to set.

PULLS

24 Drawer pulls were made from leg offcuts turned on the lathe, making full use of my trusty sizing tool. They were fitted to the fronts using double-ended screw dowels.

FITTING

25 Once set the drawers were planed and sanded to a good fit and given a touch of candle wax to ensure easy running.

26 As much of the surface preparation of individual components as possible had taken place before assembly. I did a final check over the sub frame and top with a random orbital sander...

27... then hand sanded with 320 Abranet on a Mirka extracted hand sanding block.

28 The top was screwed and glued to the sub frame, very lightly and carefully clamped, and left to cure.

FINISHING

29 I used a light finishing oil that penetrates well and cures quickly. The first coat was applied with 0000 wire wool and worked for some time adding more oil as it was absorbed. After the surplus was removed it was left for 24 hours to cure. Several further coats were applied with a soft cloth, again allowing 24 hours curing between coats, ensuring that the oil penetrated deeply but there was no build up on the surface. After a week or so, the whole piece was buffed up with a soft cloth to a nice gentle sheen.



A LIFELONG STUDENT

IN SEATTLE, WASHINGTON, **JACK CERCHIARA** USES A BACKGROUND IN SCIENCE AND A LOVE OF WOODWORKING TO CREATE HEIRLOOM PIECES THAT HONOUR THE MATERIALS GOING INTO THEM

How did you first get interested in furniture making?

I made my first piece in high school as simply something I wanted to try. I remember growing up always excited to be creating something, and while my high school did not have any traditional woodshop, I decided to build my own coffee and end table in my parents' garage. From high school through college and graduate school I dabbled in DIY and some simple building, but it wasn't until finishing graduate school that I became enamoured with furniture design and joinery and began to appreciate it as art with a rich history. Once I had access to a space in which I could do woodworking, I jumped in and started experimenting. I found excitement in the process and the challenge of learning the craft. I started to share some of my pieces on Instagram and came across Philip Morley. Philip's design, craftsmanship and willingness to share with the community sparked my love for fine furniture, and from there it has been an obsession.

How did you train?

I am self-taught. I've always had a growth mindset, believing that with enough research, practice and effort most things can be learned. I was willing to pour myself entirely into the craft. I started with the outlook that if I wanted to build something I could do the research, practise the techniques and find a way to make it work. Early on, I accepted nearly every build I was asked to do or wanted to tackle, and learned by doing. I still have that mindset today to continually push myself to grow. Once I got building, I was in the shop most evenings and weekends, learning by doing.

I have also taken full advantage of the many wonderful resources available, from books, magazines, to, of course, YouTube and Instagram. I have also found incredibly generous and helpful folks in the woodworking community, connecting mainly through Instagram. I'm humbled by the generosity of other fine furniture makers like Philip Morley, Matt Kenney, Marc Spagnuolo, Nick Sawyer and Mike Pekovich. There are

also so many content creators who are helping make furniture making accessible to so many – like Rob Cosman, Paul Sellers, Matt Estlea and Jonathan Katz Moses.

What was the first project you completed?

My very first project was a coffee table I built in high school. It wasn't particularly good-looking and didn't use classical joinery, but it was useful and meaningful. My parents were incredibly supportive and used it daily until 2019, when I replaced it with one of my new designs, and they still have it sitting in their extra room. Looking at it now, it's a meaningful piece, but not by any metric of fine woodworking, but by the fact it is the ember that started the flame.

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

I used to study penguins. In 2015, I finished my PhD at the University of Washington in Biology. I had just completed nearly seven years of study and research. After graduation, and in the midst of my fellowships, I began to delve back into woodworking. I began making smaller pieces for our new home and sharing them with friends. I found a love in furniture making and dove headlong into the hobby.

Around 2018, friends and, soon enough, friends of friends, were asking for pieces for their own homes. This was an amazing time of personal growth in my woodworking. I never said no to a project. From small end tables to a full bathroom vanity, I took on pieces for friends, committing myself to learning as I built. During this time, I also began to gravitate toward fine, heirloom-quality furniture, both from beautiful functional joinery and precision craftsmanship perspective, but also a commitment to environmental conservation. If we are going to take a living natural resource from our environment, it is important to craft furniture that will last generations rather than be discarded. And we should try to honour this commitment by making something beautiful.

In 2019, after four years of biology fellowships, I was burnt out. I had a backlog of projects in the shop and was finding incredible excitement, challenge and joy in furniture making. It was in 2019 that I decided to open Salish Sea Woodworks full time, focused on building handcrafted, fine hardwood furniture. I think my origin story is an interesting one because, from an outsider, it appears as if it's a sharp turn. In reality, I'm finding I'm using many of the same mindset and skills I applied in science to the craft of furniture making.

How did you go about it?

In starting Salish Sea Woodworks, I brought the same mindset to furniture making that guided me through academia: first, never turn away from a problem, especially one for which you don't have an answer. Second, become a lifelong student of a craft – a true expert knows that the more they learn, the more they learn what they don't know. And thirdly, care. A lot. About your craft, about the details, about people, about the history and the future of what you do.

This ethos, combined with a fierce dedication to provide the client with the best possible product and personalised service, has been a guiding force in building Salish Sea Woodworks.

I also have to thank my wife, who has been so incredibly supportive of the business. She is a certified public accountant so has jumped in to help keep the financial side of the business in order, as well as operate as chief quality assurance inspector.

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

I try to set time aside each week to be creative. Initially this was with a simple pen and paper, but now I find myself working in the 3D rendering program SketchUp, where I will play around with shapes and lines to design new pieces. I'm inspired by the patterns we observe in nature, blending these curves with the sharp lines of traditional furniture, particularly mid-century modern and arts and crafts. I am also constantly inspired by the work of the community, from learning techniques to design elements I want to adapt, tweak and incorporate into my own work. In academia, no innovation is founded in a vacuum, all our work is supported by the foundations of others. I'm particularly inspired by Philip Morley, Mike Pekovich, Matt Kenney, Nancy Hiller, Darrell Peart, Waters & Acland and Nick Sawyer.

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

Working with a beautiful natural resource, I'm reminded that as a furniture maker, I must be committed to protecting this resource and the habitat in which it grows – to be thoughtful about its harvest and respectful when taking from our environment. I like this quote by US environmentalist John Muir, and feel that furniture can convey this sentiment: 'In every walk with nature one receives far more than he seeks.'

Furniture should be equally beautiful in form and in function. I like my designs to highlight the natural beauty of the wood species and am thoughtful in choosing woods that highlight the tones I'm looking for. I look for juxtaposition, balancing light and shadow, dark and light tones, sharp angles and flowing curves. I

also like folks to discover and be surprised as they explore their pieces, from interesting grains to cool design elements hidden in plain sight.

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

After the design phase, I enter my shop with a 3D render with final exterior and major dimension, such as drawer size. From there I like to let the design process carry over into construction. I build often through reference measurements and take time as the piece comes together to be sure the aesthetic and function meet the final vision and needs of the piece. The use of my large machines certainly improves the efficiency of construction and is necessary in a commercial shop like mine. Whenever possible though, I love to get back on my hand tools. I still cut all my dovetails and visible joinery by hand. I love getting to use my hand tools, from planes to chisels, I feel a real connection to the workpiece and my customers know someone took the care to work their piece by hand. It is a wonderful day when I can turn off all the machines, dust collector and air filters and sit down at the bench with some good tunes and some beautiful lumber.

Tell us about your workshop.

It's small! I run my full-time business out of about 300sq ft, so creativity is incredibly important. In this space I build everything, from small keepsake boxes and side tables to 8ft, 10-seat dining tables. The largest piece I've built was a 12ft by 10ft entertainment centre. The space is long but narrow – 25ft by 12ft – so most large tools are on mobile bases, with the exception of my cabinet saw and custom dimensions Roubo-style bench. I have most major machinery and power tools and a growing collection of hand tools. I have been in this shop since 2017. My wife and I plan to move to a new home in a few years with some more property, where I plan to build a larger forever home for Salish Sea Woodworks.

How does your design process work?

For a commissioned piece I ask the clients what their specific needs are, what they need the piece to function as, and of course general dimensions. I often will ask for a photo of the room the piece is going in so I can gather some info about the other pieces, floor colour and wall paint, and the amount of sunlight in the room. These all help me decide on what primary wood species might look best. From there I consider my principles of style and inspiration. I will then discuss the design with the client, being sure they are happy with the design, making any changes they have and landing on a design that I'm excited about and that gives them exactly what they are looking for.

Which materials do you most like working with?

I really love working with figured woods, most especially walnut, curly maple, sapele, mahogany and cherry. I really like cherry and the mahogany woods – sapele and true mahogany – right now, since they tool so well with sharp hand tools. I enjoy bringing brass and bronze into my work, and love the colour and accent it brings.



**What sort of finishes do you prefer?**

I try to use all-natural finishes, and as a principle I don't stain, with the exception of ebonising. This helps to decrease the amount of chemicals I have to use in my shop – not only for my own exposure, but to decrease the impact on the environment. I believe the wood should be the star of any piece, and the wood and design should work to accentuate each other. If a dark wood is called for, a dark wood species should be selected, not a light wood that has to be stained. Similarly, I choose finishes that are appropriate to the amount of wear and use the piece will get. Most frequently I use durable hardwax oils and other traditional natural oil finishes. I will occasionally use a water-based polyurethane, or build up a Maloof-style finish for extremely heavy-use items.

What is your favourite project you have worked on and why?

I think my current favourite is the Walnut Floating Dining Table. The client gave me design freedom to make the piece, wanting something that would be a gathering place for up to 10 seats, but to bring a unique modern design to their space.

The other meaningful piece was the Snoqualmie Dresser, I built this piece initially as a changing table for my new baby daughter. It was crafted entirely of curly maple, and I carved the front of the drawers into an organic wave pattern. When my daughter is upset it is one of the few places I can set her and she calms down quickly – I think she may like the piece!

What is the most challenging project you have worked on?

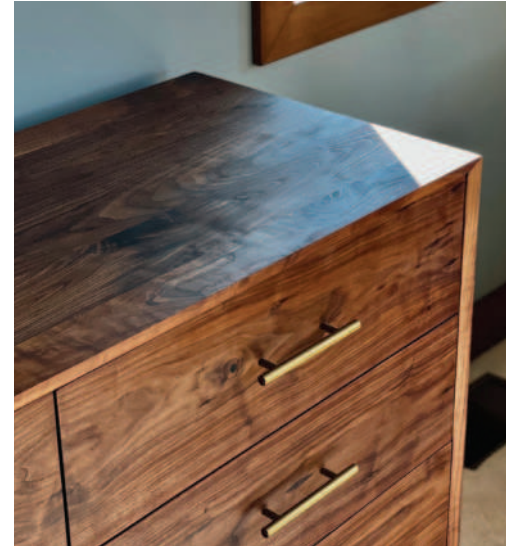
I had a client that wanted a set of desks for their children made from the crib their children used when they were babies. It was a challenge to take the components of the maple crib and integrate them in an interesting way into two new cherry desks. I was working around pre-existing curves and joinery, as the client wanted the crib to still be noticeable but flow into the piece.

Do you prefer working on commissioned work or your own collection?

I always love a new challenge. I enjoy pushing myself with new designs, joinery and new solutions for customer needs – so I prefer commissioned work. For my own catalogue, I welcome clients tweaking the dimensions to meet their needs, so being able to work on familiar but novel pieces is a lot of fun. For example, I've taken my Muir Sideboard down to a small entry table in sapele (Alki Entry Table), and to an 8ft version in curly maple to store 14 wine bottles. Nearly 100% of my business is commission-based, either my own design lines or custom pieces. I do occasionally sell keepsake and jewellery boxes that I have in stock. I am excited to continue to grow my own collection into pieces that people love.

How do you go about working on commissions?

I have a fierce commitment to being sure the client gets an



heirloom piece of furniture that they are incredibly excited about and will love for generations. How this looks depends on the client. More often, clients will come to me with a general idea, or design inspirations and dimensions and then I will build them a design render and we go from there. I believe that no time is ever wasted on design, so I will often go back and forth with the client to tweak the design until we have something they truly love.

What are you working on now and next?

I just finished my Walnut Floating Dining Table and absolutely love the design, I wish I could have kept it for myself! My next piece is a custom desk in Walnut and Curly Maple. It was designed for a client who is in a wheelchair and in need of custom dimensions, to have a beautiful piece that works for their particular space and needs.

Where do you see your work going in the future?

Most of all, I'm excited to continue to learn, practise and grow – from new joinery and techniques, to design principles and the broader historical context that has helped create this wonderful craft. I'm excited to continue to build my business and work on new designs with my clients. I'm hoping to find some time to build some ideas I've designed for my own line, but haven't been able to find space in my commissions to build. I also don't

do much turning and would love to get a lathe and learn to incorporate turned components into my designs.

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

The first full year of business for Salish Sea Woodworks was in 2020, so that year brought new challenges along with the many involved in starting a small business. First and foremost, I was committed to keeping myself and my clients safe – being sure to follow safety practices, particularly partnering with a delivery team that was of the same mindset. Most all my design and estimating process is remote via email or phone, so that was relatively uninterrupted. I was fortunate to have passionate customers and interior designers who were excited to work with me, and were patient about any supply chain issues that occurred.

What do you do when you're not working?

My wife and I just had our first baby, so first and foremost is spending time with my daughter Oak, my wife and our two dogs. In the evenings, I also coach lacrosse. I also enjoy spending time outside with friends, skiing in the winter and travelling when we're able to again.

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PHOTOGRAPHS BY ISRAEL MARTIN



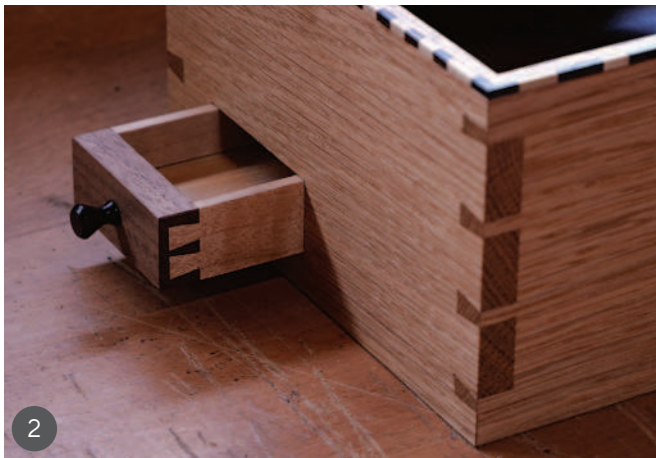
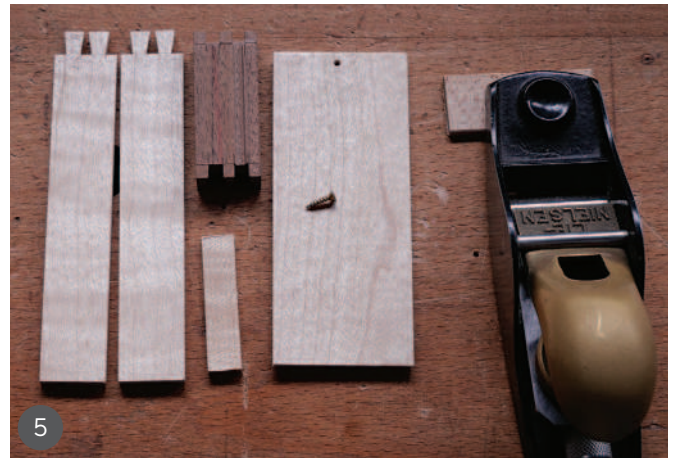
OAK AND ASH JEWELLERY BOX

ISRAEL MARTIN MAKES A SMALL BOX WITH
FUN DETAILS TO USE AS A TEACHING AID

Every July for the last three years I have taught a seven-day course in Barcelona. It is a very intensive week, and I wanted to make a small project with lots of details for the students to learn. We try to do most of the work using hand tools so small items are ideal as they can be completed in a week and students can still learn lots of techniques.

The project I came up with is a quartersawn oak box with rosewood and holly edge inlays. In one side I made a drawer, on another side a small inlay with ebony and holly edges and figured maple inside and on the other side a small rosewood inlay with abalone dots inside. I also added an interesting lid, made from shop-made plywood with turned pulls. It turned out to be an excellent project that the students really enjoyed making.







1 This small box includes lots of interesting details 2 The side drawer 3 The oak carcass 4 The drawer hole 5 The drawer pieces ready for glue-up 6 Gluing up the drawer 7 Detail of the drawer bottom 8 The drawer space 9 The drawer space top 10 Detail of the tiny dovetails 11 The rebate in the carcass for the edge inlay 12 Planing the holly strips 13 Cutting the holly pieces 14 Planing the edge inlay with the block plane

THE SMALL DRAWER

I made the hole in one of the sides, first making four holes with a hand brace, then trimmed the sides with chisels, just like a through mortise. I did this very carefully, making sure to leave the sides as smooth as possible.

I made the case inside the big box and added runners and guides for the drawer to slide well. I left the top of that case removable to show the students the inside and how to make it.

Then I made the drawer with small dovetails. This was the part that the students loved.





- 15 The finished edge inlay
- 16 The ebony and holly pieces glued up
- 17 Front view of the ebony and holly pieces
- 18 The finished side inlay
- 19 Ash detail
- 20 Sawing the ash pieces
- 21 The ash veneer before planing
- 22 Gluing up the plywood
- 23 The lid done and adjusted
- 24 Detail of the lid
- 25 African blackwood pull



EDGE INLAYS WITH MORSE CODE

I liked that my master and friend, American furniture maker Garrett Hack, used Morse code in his pieces, so I decided to add this to my box too, I think it is really fun. On this box, the Morse code spells out 'The Goat', based on my brand name.

I made a rebate on the carcass and then prepared the little inlay piece, first making strips with two sides perfectly square to fit in the rebate. With a red crayon, I marked the square side of the strips so when I cut the little pieces I could see the part that adheres to the rebate.

First, I glued up the four corners and planed them flush with the carcass and then the rest of the pieces. Then I just had to plane everything flush. To avoid tear-out, I recommend using a low angle plane with a high angle micro bevel because it is difficult to keep track of the grain direction on these tiny pieces.

SIDE INLAY WITH EBONY, HOLLY AND FIGURED MAPLE

On one of the sides, I made a small square recess with the chisels, and then I made the bottom perfectly flat with the small router plane. Next, I prepared the thin ebony and holly strips. I cut them into small pieces and glued them to the recess sides, holding them with tiny nails. I first made two sides, then planed them and then the other two sides. Once the ebony and holly lines were made, I adapted the figured maple piece to the remaining space and planed it flush with the lines and the oak piece.

SHOP-MADE PLYWOOD LID

I wanted to make a lid with no movement and I wanted to show the students how shop-made plywood was made. I prepared a 2mm-thick veneer out of a nice piece of ash. The core was made from quartersawn maple strips. After preparing the core I glued commercial veneer as cross banding and then ash veneer. I made all of this smaller than the lid space, and then added oak strips to the plywood sides. I then adjusted it in place. Finally, I made the African blackwood pulls for the drawer and the lid.

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– WAYWOOD



DISPLAY TABLE
BGM 478

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STEAM-BENT LAMINATED OAK TABLE

OLI RENISON DESCRIBES HOW A PLAN TO MODIFY
AN OLD PIECE OF FURNITURE TURNED INTO A
COMMISSION FOR A BRAND NEW CONSOLE TABLE



1 A 1:5 scale model was made to test the design 2 Bending jig for steaming attempts
3 A failed steaming attempt

This commissioned table evolved into what it is now by something of an accident. My client had originally got in touch to modify an existing table which had been made by her husband many years ago, and that she thought needed updating with a more modern look and leg shape. There was a good deal of back and forth, discussing potential designs and the problem of actually extending the table surface to a bigger size.

After some time, and with quite substantial alterations planned, I suggested that it might actually be more straightforward to make a new table, from scratch! I submitted some potential designs, the client loved them and so instead of alterations, a brand new table was approved.

DESIGN

For my design, I wanted to employ some element of steam bending after having my interest in it reignited some weeks earlier by a fantastic one-day steam bending course with Charlie Whinney up in the Lake District. At this course I had rediscovered the excitement and fascination of bending wood,

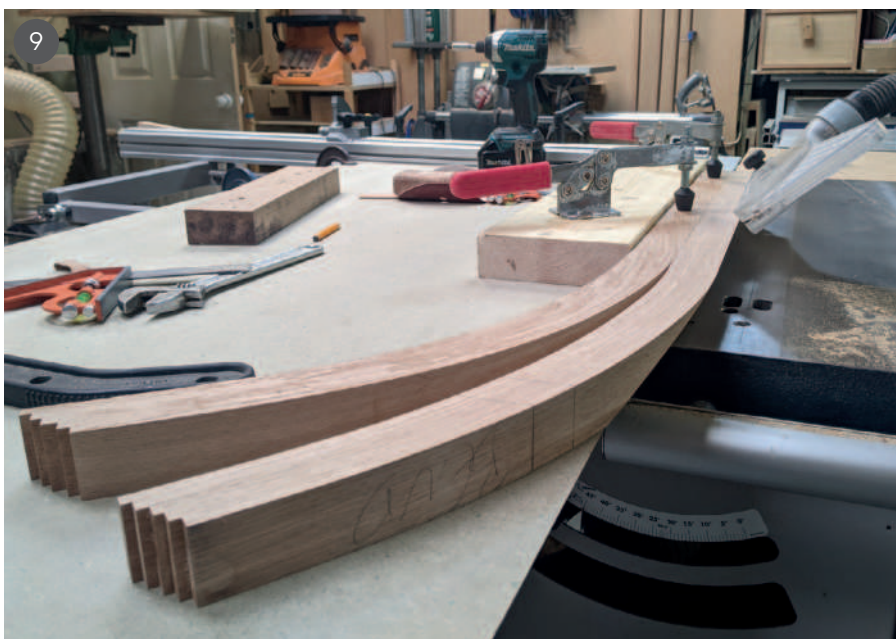
something I had tried previously but had not used on an actual piece for several years.

A technique I was particularly drawn to was split-bending, where a single piece of wood is bandsawn to a stop, then the piece is steamed, before each section of the part is bent to a slightly different shape. I thought that I could employ this technique to make a very simple but beautiful looking leg at the corners of a table top and so based my design on this.

As it turned out, the technique was not that simple and I was near the bottom of a fairly steep learning curve ...

As I often do, I initially produced a 1:5-scale model of the design to get a better idea of proportions and also to get a sense of the challenges I would face in assembling the piece.

My design involved the legs being cut through the top and because they were curved and at 90° on each corner, it wasn't going to be a simple case of pushing them through from underneath like with a straight mortise. Once I was happy with the general proportions in my model, I set about making the bending jigs and templates required for this split bend.





4 Failed test bends 5 My steam box made from ply and insulation board 6 The laminations gluing up on the former 7 A good collection of laminations for the four legs 8 Gluing the two different bends together 9 The tablesaw jig for the long mitres 10 A guide to position the legs right on the corner 11 Letting the legs into the table top 12 One corner finished with through-leg notches cut on both sides 13 Creating the stretcher rails

LAMINATED TIMBER

I had been unable to obtain air-dried oak in my timescale, and anyone who's dabbled in steam-bending might know that air-dried timber is a lot more pliable and willing to take a bend over kiln-dried timber. However, I thought that the bend was fairly mellow and that it would probably work out OK with kiln-dried.

However, after a few attempts at bending my forms, I quickly realised that it was not really going to work and that I may well be left with a pile of expensive bendy firewood and not much else.

The kiln-dried timber was splitting in the steam box, and despite following general practice on steaming times, it was being extremely reluctant to take even this mellow bend. I had to change tack and so decided that a hybrid approach of laminations, pre-steamed and then glued to my two bends might work well.

Having made two formers based on my chosen bends, I could start to make my laminations. Each lamination was around 7mm thick and so needed steaming in order to bend.

STEAM-BENDING

I steamed the laminations in batches, all cut consecutively from my stock boards to keep the tone and colour well matched. Then it was out of the steam box and quickly into the former where, clamped into position, they were allowed to cool for an hour or so to make them accustomed to the bend.

Once cooled, I could glue the laminations up together in the former. For each corner of the table, there were two bends of two different shapes, so four components for each corner. I glued

each set of laminations up with a urea formaldehyde adhesive which locks them in nice and rigid once set.

Once each set of laminations was cleaned up and thickened to size, I was able to glue the two subtly different bends together to create one half of each corner leg.

It was then onto the tablesaw and a jig which I had designed to hold the sections nice and flat and true while I took them through the saw, cutting a long mitre down the whole leg. I had to concentrate here as all of the sections were 'handed' and so it would be easy to cut the wrong one on the wrong side.

THE TABLE TOP

The next job was to prepare the top itself. This was made up from several boards glued up together, jointed with double height biscuits along each joint. Cleaning up involved scraping the glue back, initial flattening and a wide belt sander to get it perfect. After the top had been prepared, I then had to cut it to the finished size so that I could start the process of letting in the legs themselves.

I made a 90° face from MDF that would sit under the upturned table top and allow me to offer up each leg section, making sure it contacted the face, telling me that it would be in line with the corner when fitted.

I scribed the leg profile onto the table edges where they crossed, squared them across to the thickness of each section, cut the outer cuts with a Japanese saw and then hogged out the waste with a router and chisel, fine-tuning the fit to get the legs in perfectly to their slightly curved outer edges. There wasn't any room for error here as the whole joint would be seen.



Once I had let in each leg section from both sides, I was left with quite a large table top, with rather delicate corners. I had to take a lot of care from here on to avoid knocking off any corners.

The next job was drawing out the stretcher rail on a full-sized rod and creating another template and former with which to bend this to. The design was a simple flowing curve, made from two identical sections flipped, and then cross-halved together to create the stretcher.

The design of the table meant that I would need to make a call on fitting the stretcher rail in terms of assembly order. Because the two sections of each leg come into each other at 90°, it made it impossible to assemble the legs and stretchers as one unit, as you might do on a regular four-legged table and put the top on afterwards. The leg assembly also would have an inner section added after glue-up to make it square. This also meant that I had to rely on being able to fit the stretcher rail later.

ASSEMBLY AND GLUE-UP

After doing as much finishing as I could to the top underside, I set about letting in each leg assembly, one corner at a time with opposing legs being clamped in first. It was a tricky glue-up, broken down into several stages, where I had to ensure each leg was clamped firmly into its table top seat, nice and true, but also that the long mitre was brought together crisply without any gaps.

To help me clamp the mitre, I bonded sacrificial clamping blocks to the outside of the leg using Mitre Bond. I could knock these off later once assembled.

With one side of the leg assembly glued in, the next was added and the long mitre, strengthened by biscuits was closed tight. The process was repeated until all four corners had been completed.

Once all of the leg assemblies were fitted, I could flush them off and move onto the lower leg infills which would give me a nice, square leg profile lower down.

These infills were curved so that they transitioned from the upper inset legs down into the solid square section of the lower leg nicely. With these in, I could flip the table and offer up the stretcher rail assembly. I was relying on being able to fit this by there being enough flex in the legs for me to be able to pull them apart and drop the stretcher rails onto Domino joints. Luckily there was.

The stretcher rail assembly was glued in and then it was on with the task of cleaning up and finishing.

Everything was softened off, rounds put on and the joints crisped up. It was pretty difficult getting into all the various angles of the inset curved legs so I had to employ rulers wrapped in abrasive, long strips of emery cloth and any other method I could get to work. It all came out quite nicely though.

FINISHING

The client loved the oak but preferred a slightly darker tone and so I used a finish that I love using on oak, Osmo 425 Oak, which is a tinted version of their oil that looks just fantastic and really gives a depth to the surface.

With everything finished and the oil given a few days to harden off, it was time to deliver it, stopping briefly on the way to get some good shots of it at a local golf course, as you do!

My client was over the moon with it and it took pride of place at the end of their long lounge room. I'm not too sure what they ended up doing with the husband's table – I didn't want to ask!

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14 Gluing in opposing legs first

15 A finished leg assembly for one corner

16 Flushing the protruding legs on the top

17 Offering up the stretcher rail assembly

18 Gluing in the stretcher rail assembly

19 The table all cleaned up and rounds applied

20 Applying Osmo 425 Oak finish

21 My maker's mark

22 & 23 A golf course photo shoot for the finished table



TURNING PINE TABLE LEGS

RICHARD FINDLEY TURNS A SET OF 'COUNTRY KITCHEN'-STYLE PINE TABLE LEGS

As is so often the case, I was approached by my customer via email with a grainy, ill-defined photo – no doubt taken from the internet – of a dining table, asking if I could make a set of legs like the ones in the picture.

After some discussion about materials and dimensions, I had something more concrete to work with. The legs are 95mm square and 770mm long, with the square pommel at the top being 180mm long, made in European redwood, commonly known as pine. The design of the leg was vague enough that the customer left it to me saying: 'As long as they look something like the picture, that's fine.' I always enjoy this sort of commission because it allows some freedom to play with the design within set parameters.

TURNING TOOLS

As always, I try to use as few tools as necessary to achieve the end result. For this job I used my 32mm spindle roughing gouge, 12mm spindle gouge and 10mm beading and parting tool, which doubles as a skew chisel and a parting tool. If you don't use one of these versatile tools then, whenever I describe using it, a skew chisel can usually be used instead.

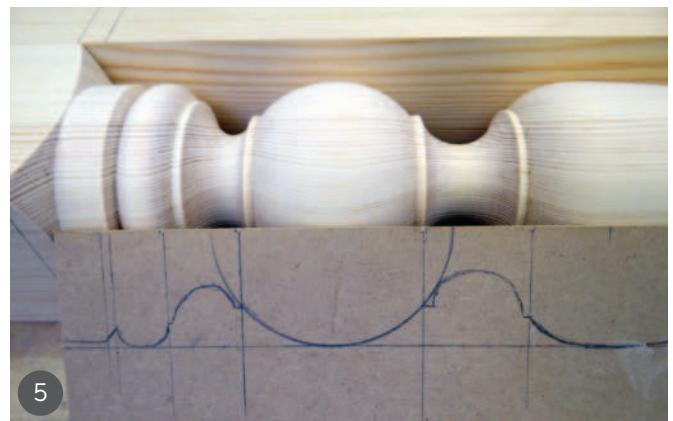
DESIGNING THE LEGS

Over the years I've made a number of sets of table legs in a similar style. Some I have liked very much, others I wouldn't give house room to, but for the ones I like, or at least think have interesting features or shape combinations, I make sure I keep the storyboards for future reference, which is very helpful for jobs like this. Being aware of good proportions and shape combinations for commissions of this sort is extremely helpful, but unfortunately the only way to get to grips with what works and what doesn't is to make some and find out.

With the timber machined and ready to turn, I mark the position of the pommels by laying the four legs together and marking the lines at the same time with my square. I only mark one face as it is quite clear on the spinning wood and it is much quicker to do it like this. The square sections allow rails to be joined to them, usually with a mortise and tenon joint, forming a sturdy frame which will support the table top.

The template, or storyboard, is a vital tool in this sort of batch turning and I use it to draw the leg in full size, although I only actually draw out half of the leg, which I find much more simple





PHOTOGRAPHS BY RICHARD FINDLEY

1 The tools used for this job, from left to right: spindle roughing gouge, spindle gouge and a beading and parting tool **2** Marking the pommels on the legs all together **3** Cutting the small V-groove with a triangular file on the edge of the storyboard, or template **4** Using a pair of compasses to draw the spherical detail **5** Here you can see that only part of the sphere is visible, but it all needs to be carefully taken into account

and perfectly adequate. The most important part of the template is to define the detail positions, allowing easy transfer to the timber. I use a small triangular file to form a V-shaped groove in the edge of the board, allowing me to rest a pencil in the groove against the spinning wood and quickly, easily and repeatedly set out the design on the work.

SPHERICAL DETAIL

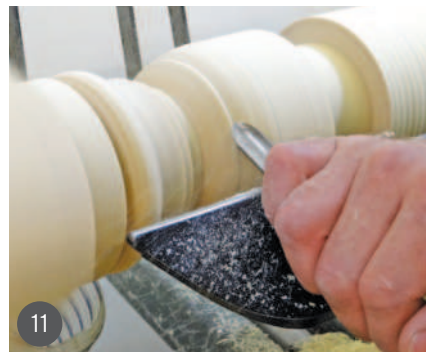
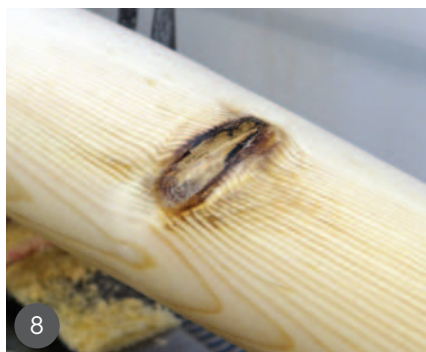
One detail that was visible from the grainy picture supplied by my customer was a spherical ball shape towards the top of the turning, and I was keen to keep this in the final design. Spheres are always a challenge, although I've turned enough of them that I find them much less taxing these days. I've learned the hard way

that, without careful planing, what should be a sphere can look squashed or stretched. The problem with a sphere is that it is a pure shape and any deviation from it screams out as being wrong.

The biggest issue here is understanding that only part of the sphere is visible, but that the visible part does need to be spherical. The picture above shows what I mean. Where most of the shapes can simply be sketched out between two points, the sphere needs to be drawn accurately with a pair of compasses.

LEG NUMBER 1

The first leg always takes the longest to make. While the design is largely set on the template, I tend to work out the final diameters on the job as I go, based on what I've drawn.



6 Using the template to mark the positions of the details 7 Sizing with spring callipers and my beading and parting tool
8 Knots and pine go hand in hand but, turned carefully, they shouldn't cause too much trouble. This knot shows the finish straight from the tool
9 Setting the duplicating fingers 10 The duplicating fingers in action 11 Turning the sphere detail with the spindle gouge

I score the ends of the blank with a marking gauge, which quickly locates the centres at each end. I mount it between my Evolution drive centre and a ring centre in the tailstock. The small teeth on the toothed drive centre bite well into the wood giving a secure hold. This is probably about as large a blank that I would turn before swapping to a four-prong drive, which gives an even more positive grip.

The first cut is always to define the shoulder of the pommel and separate the square section from the turned part, which I do with a series of slicing cuts with the tip of my beading and parting tool. The turned part can then be quickly roughed down to round and the template brought up.

I use the toolrest to stabilise the template and mark the detail positions, resting my pencil in each of the grooves I made earlier. I can then set about what I call the 'blocking out' stage.

Using a set of spring callipers and my beading and parting tool I begin cutting the diameters of the fillets. Fillets are a small but important detail which break up and punctuate the larger, bolder shapes. I begin cautiously and, as I add definition to the main shapes, I can take the fillets down to a final dimension that works visually.

The two coves either side of the sphere are left until last as turning these too early can lead to unwanted vibration which makes life far more difficult than it needs to be. Only once all of the rest of the turning is complete do I turn the coves.

PINE AND KNOTS

Pine and knots come hand in hand. Whether you see knots as a natural decorative feature or a defect, it is a rare thing to buy a board of pine without at least a few knots. As I cut the blanks for the legs from the long length of 100 x 100mm that I bought, I always try to cut around as many knots and faults as possible while, at the same time, trying to be as economical as I can.

The end use and planned finish for the item being made is an important aspect to take into account when deciding what to do with knots. An item that is being painted can have knots filled and virtually removed from existence under the finish, but in this case, where the legs are to be left as pine with only a clear or lightly coloured finish applied over the top, knots actually become a feature and need to be treated as such, with care taken to keep them as intact as possible.

Live knots pose little trouble. These are where a branch was literally alive and an integral part of the tree, meaning the knot is well attached and a part of the surrounding timber. Dead knots, on the other hand, have usually dried out and often become loose in the surrounding wood and need care that they don't fly out during turning. Sometimes they can be removed and glued back in securely, giving the best of both worlds.

Whichever type of knot you are faced with, the main thing to remember is that, although knots are often harder than the surrounding wood (they are essentially a chunk of end grain in an otherwise clear piece of side/face grain) they are only wood,



12 Defining the main shape with the roughing gouge 13 Planning cut with the beading and parting tool
14 Forming the coves with the spindle gouge

so can be turned just as the rest of the wood is being turned. They sometimes need a light touch and a little extra care, but they are just wood.

MEASURING

I use duplicating fingers to easily replicate diameters. These are a valuable tool in my mission to be as efficient as I possibly can when production turning. The fingers are a simple mechanism that fix to a steel bar which runs behind the lathe a little over centre height. The bar is supported by a pair of wooden brackets fitted to the lathe bed. Fixed to the bar is an adjustable fitting with a loose swinging 'finger'. With the first leg mostly turned and being happy with the diameters, I adjust the fitting so that the finger will lightly rub against the wood and drop past it in several key areas. When I mount the next leg on to the lathe and turn it to round, I drop the fingers down so they run on the timber. As I begin the blocking out stage and initial shaping, the fingers will simply drop when the desired diameter is reached, allowing me to keep turning without the need to pause and pick up and set or check the setting of my callipers. While they were relatively expensive to buy, the amount of time I can save over the length of a job, particularly a job with many identical components, is unbelievable.

I used to use several sets of different callipers for years before I began using the duplicating fingers. I mention them more as a point of interest and to show how I work than for any other

reason. If you only occasionally turn multiple matching items, then callipers are absolutely fine to use.

ORDER OF WORKING

With the first leg turned to my liking, I can carry on with the rest. Now I have the duplicating fingers set and I am familiar with the shapes I am turning, the second is much quicker than the first. The third and fourth will be quicker again.

As turning progresses I make various decisions about which order to make cuts, and with which tool. There isn't really a right and wrong way to do this, and if you watched several turners make the same leg, you'd no doubt see several variations in approach. I try to minimise the amount of times I switch between tools. Bearing in mind I only have three to hand, the choice isn't too hard but personally I find some cuts easier with my beading and parting tool and others with a spindle gouge.

I use my beading and parting tool to block out the main diameters and, using my long 380mm toolrest, I can cover all of the top details without moving it, which once again adds to the efficiency. While the tool is in my hand I try to do as much with it as possible, so the gentle curve of the crowned pommel, the crisp V-cut and first bead can all be turned with the same tool. When it comes to spheres though, I have always preferred to use a spindle gouge. I no doubt could do it with the other tool, but I find I can easily achieve the best shape with the gouge, so that is the first swap.



15 Touching the spinning work is safe as long as care is taken and the wood is smooth 16 A slicing cut on the fillets leaves them clean and crisp 17 Sanding with 180-grit abrasive 18 The finished set of legs 19 Detail shot of the finished legs

Gouge in hand I turn the top of the central section too before moving the toolrest to the bottom half of the leg. I use the beading and parting tool to size the fillets either side of the lower bead and roll the bead itself. I then switch back to the gouge to begin defining the curves either side of the fillets, the lower one running down to the bottom of the leg, the upper into the main curved body of the leg.

With this definition added I then pick up the spindle roughing gouge to remove the bulk of the central section. Once happy with the shape I also rough out the very bottom of the leg before switching back to the beading and parting tool to make a planning cut along the surfaces cut by the roughing gouge. The final shaping cuts are to form the coves with my spindle gouge. A quick look over the leg and any tiny adjustments or final blending of details and I am almost ready to sand the leg.

TOUCHING THE WORK

I have heard it said that at no point should the spinning work be touched with the hand because it's dangerous, but if you watch any professional turner work, they nearly all touch the work constantly – and perfectly safely – as they turn. The key is to understand when and how it is safe to touch the work. It can't be touched while it's still square and some natural edge and square edge work is just unsafe to touch while it's spinning. But turned, smooth timber is quite safe with a light touch and at the rear of the work, so fingers can't be pulled in between the work and the toolrest.

FINAL CUTS

One of the final tidying-up cuts I make is to the fillets. Up until now, the surface of the fillets is quite coarse, having been formed

by the initial sizing and blocking out stage. To ensure they are clean, crisp and free of any tear-out, I need to make another cut to them with my beading and parting tool. To achieve the cleanest cut I use the tip of the tool and lightly slice in a sideward action. This gently removes a small shaving without risk of further damaging the tiny and delicate detail.

SANDING

The final step is sanding. I find pine rarely needs sanding below 180 grit so, as long as a good level of finish has been achieved from the tool, this is the only grade of abrasive I use here. I find 180 to be a good combination of coarse enough to smooth minor flaws but fine enough to suit this type of work. Different timbers and finer work will require finer grades of abrasive, but for these rustic legs there is little need. Don't mistake my use of the word 'rustic' for 'poor quality', which I feel many people do. Rustic just means simple materials and simple tools have been used to make an item for everyday use. At no point should you sacrifice quality for speed or cost – it shows if you do.

CONCLUSION

I always enjoy turning table legs and good-quality pine is a joy to work. Sometimes this style of leg is requested in oak for high-end work or tulip/poplar if a high-class painted finish is the goal but, because of its relatively low cost, pine is still popular. The many challenges of this kind of batch production are what I enjoy so much, from the design stage to turning perfectly repeated shapes time and time again, along with my personal challenge to try to turn as quickly and as efficiently as possible while maintaining the very highest standards of work.

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TRUSTING YOUR TALENT

RICHARD FROST ACHIEVED HIS DREAM OF SETTING UP AS A FURNITURE MAKER IN YORKSHIRE AFTER FOLLOWING HIS AMBITIONS AND RETRAINING AS A DESIGNER-MAKER

Richard Frost's remarkable transformation to furniture maker came about when, after 27 years working as a civil engineer, he decided to make a career change and follow his passion for woodworking. Today Richard runs his own handcrafted furniture company based in Yorkshire and is a designer-maker producing his own bespoke work. Richard says he has always instinctively known that furniture making was something he would do if he got the opportunity. While he is unsure where this certainty came from, it is clear that from an early age the arts played an important part in Richard's life.

'As the son of a silversmith I've been exposed to the arts for as long as I can remember,' he says. He traces his interest in wood back to his childhood when he attended the degree shows of art students at Manchester polytechnic, where his father worked. 'While wood, metal, ceramics and glass were all on display, it was the look and feel of wood that I was particularly drawn to. This led to some early attempts at woodturning on my dad's lathe under his tutelage.' It was from his father that Richard's close attention to detail was instilled at an early age.

Even through school Richard was always more concerned with how his work looked rather than its academic content. Nevertheless he pursued a career in civil engineering, which took him around the UK and overseas for a short time. 'Much of my latter civil engineering career involved me working on some of the UK's industrial heritage,' he says, 'where of course the Victorian attention to detail was always in evidence'. In December 2016, an opportunity came his way in the form of redundancy from his job. He says, 'I decided I would take six months off and formulate a plan as to what I would do next. I decided to book a furniture making course, initially a week, to find out whether I enjoyed it and had an aptitude for it.'

A NEW OPPORTUNITY

Close to Richard's hometown of York was Chris Tribe Furniture, who offered tuition and courses. Richard booked on the Introduction to Woodworking course and was immediately bowled over by the finish that could be achieved with a plane and chisel. Inspired by his new hobby Richard went on more of Chris's courses to build his initial skills over a six-month period. The last one was a bench-making course so he could

continue his new interest at home. After six months he returned to the comfort of what he knew and re-immersed himself in engineering and consultancy. But Richard soon realised he wanted to be back working in a workshop, making things with his hands. He also knew he needed a long spell at a furniture school to rapidly progress his skills.

Richard was drawn to the company Waters & Acland based in Cumbria. A week's taster session in 2017 was enough to convince him to do their year-long course. By September he had handed in his notice at work and was ready to start a year of tuition. 'Needless to say, I had an amazing year and made some great friends who are part of my support network today,' he says. Richard also completed his first self-designed project, which was a walnut console table with two piston-fit drawers featuring marquetry drawer fronts and laminated curved legs and incorporated various techniques he wanted to develop. 'Waters & Acland has continued to feature at various points in my furniture making career ever since,' says Richard.

When he started at Waters & Acland Richard had no firm idea as to where the course would lead him. 'Partway through the course I started to toy with the idea of having my own business,' he says. He was enjoying designing and making in equal measure, reflecting on his previous corporate life and re-evaluating what was important. But also he reveals, 'I was hooked on producing items of furniture,' which brought together the artistic side missing from his earlier career with the problem solving that he had previously enjoyed. 'I could see that a life as a furniture designer and maker would allow me to work in collaboration with others, solve problems and create beautiful objects. For me, nothing could be better.'

Once back home, Richard was able to draw on the experience of one of his neighbours who had their own business in the arts and provided some useful tips. 'Google went into meltdown as the various questions came to the fore of my mind. Looking back now, I don't think there was much I didn't already know or could have worked out, it just speeded up the process significantly,' says Richard. 'Getting to know a local support network has proved hugely beneficial, whether that's a friend of a friend who has been able to help me out with graphic design or a local furniture maker who allowed me to make use of his workshop.'



Richard set up a home workshop in his single garage at the end of 2018. He installed a workbench, router table, pillar drill and lathe to accompany a plethora of hand-held traditional tools and power tools. This worked well for some of his work, including assembly and finishing but the absence of space for small machines for initial processing and dimension components was a considerable drawback. He was, however, able to rent space at a nearby workshop, allowing him to continue with his work for a while. This was short lived as the arrival of Covid saw this opportunity disappear. During the latter part of 2020 he returned to Waters & Acland to make a statement piece for an exhibition and during this time came the chance of renting space in Waters & Acland's new development workshop. 'I seized the opportunity and spent some of 2021 helping to set up the workshop. I now split my time between my home workshop and this one in Cumbria. And I'm fortunate that I have an understanding partner,' he explains.

THE CREATIVE PROCESS

Richard's guiding principle is always to produce beautiful, contemporary looking furniture, with function at its core. As an active fell walker in the Yorkshire Dales and the Lake District, inspiration for Richard's work comes from a variety of sources. 'This may be a walk in the countryside, experiencing a different culture or visiting our industrial heritage. All of these provide me with the opportunity to see the beauty of shapes, colours and textures, which stimulate thoughts and ideas for the furniture I design and make.' Ultimately, he says, his objective is for those viewing his work to have similar feelings of artistic appreciation while recognising that function remains at the core of the design.

The design process begins with sketching concept ideas based on visual research of a particular theme. As each design develops, Richard considers the details and overall coherence of the piece as well as the structure which determines how the piece will be made and how it will stand up. 'During these processes I move from sketchbook to CAD package. I make use of rendered images and samples to help convey the look of designs to clients. My design process culminates in a fully dimensioned workshop drawing'.

Richard has no strong preference between working on commissions and working on his own collection; he believes each brings different benefits. 'Working on my own collection brings real freedom in choosing different decorative and construction techniques to experiment with; while the commissioned work helps keep me grounded in designing furniture seen from a client's perspective.' He finds both processes enjoyable and each one helps him to develop his skills. 'Every commission is unique and comes from a different starting point. For some people, they already have a clear vision in their mind's eye as to what they'd like; for others we are starting with more of a blank canvas. Either way, my

commissioning process starts with a chat, which allows me to explore the client's thoughts and ideas around the piece of furniture they'd like to commission.' Typically, Richard covers budget and function, i.e. what his client wants and how the furniture will be used. This includes points of inspiration, thoughts on the choice of wood and the timescale involved. Richard then produces a series of designs, which through iteration get developed into a final design. Some clients want to be fully involved in the process, while others are happy for Richard to take the lead.

The walnut console table that Richard produced at Waters & Acland is still his favourite piece. 'It was the first piece of furniture I designed and made and the first piece I sold. The design incorporates various techniques I wanted to learn: piston-fit drawers, laminated curves and a complex joint in the form of a curved mitre. Luckily, the hugely talented Graham and Tim from Waters & Acland guided me through the making process.'

Many of the speculative pieces Richard has produced for exhibitions and galleries include his own decorative elements. He enjoys the process of researching and creating patterns for his work. A strong visual impact can be achieved through careful selection and manipulation of contrasting woods and veneers such as rippled sycamore with oak or walnut. 'I've used decorative pieces to showcase the "art of the possible" to clients. In my most recent design, an Egyptian drinks cabinet, wood movement within the individual pattern pieces caused a small headache prior to putting it together. I used my block plane to straighten the edges prior to assembly. Within my veneer work I have made use of both hand-cut and laser-cut components where the level of complexity and accuracy is beyond my current skill level.' Richard likes to think about the overall artistic design he'd like to achieve and then consider the best way to make it. He would rather improve his skills than constrain his thoughts to the techniques he already knows.

When considering what tools to use he explains: 'In my work I blend the use of traditional hand tools with modern hand power tools and machines. Of my hand tools, I find a well set-up plane particularly satisfying to use, especially when creating mounds of ribbon like shavings. The noise of a plane in use and the silky-smooth finish it can create are equally satisfying. I use a No.5½ for most jobs and a small apron plane for some of the more delicate work with my marquetry and parquetry work.'

Richard describes furniture making as 'a balance between precision with tools and an ability to constantly solve problems.' As such, he often likes to challenge his capabilities within each design to continue to develop his technical knowledge and skill. Therefore the most challenging project is always the one which includes features Richard has not yet encountered. Currently this is a three-legged circular hallway table with slender three-way mitres to the rails, radial laminated surface pattern and brass inlay. Such challenges have enabled Richard to move forward in developing his expertise.

Richard describes furniture making as 'a balance between precision with tools and an ability to constantly solve problems.'



LOOKING AHEAD

As a 'relative newbie' to furniture design and making, Richard would like to continue developing and broadening his experience. Basing himself for part of the time at Waters & Acland's development workshop has meant working with others whose levels of expertise far exceeds his own. But his remarkable progress has provided him with a level of confidence to continue to stretch himself in his designs and subsequent making.

His current commission is a coat stand made from laminated walnut with rippled sycamore veneers to the inner faces. The inspiration behind the design builds on his earlier study of Egyptian artefacts and architecture and is based on a lotus flower. Like many of Richard's pieces it incorporates sweeping curves as part of the design. Following this Richard has a coffee table commission to make, which is curved and made from oak laminates and will be ebonised.

Richard is also in the process of producing a number of designs for a solo exhibition in his home city of York at the end of this year and is something he is particularly excited about. 'It will be my first solo exhibition and is all based around a study of the Egyptian Pharaoh Tutankhamun. This November marks the centenary of Howard Carter's discovery of King Tut's tomb and the amazing artefacts that were revealed. All of the pieces will have some link to this research, and will invariably involve decorative patterns and inlay.' This is particularly poignant

as Covid brought a reduction in exhibitions for showcasing work and commissions in general and an increase in making speculative pieces. 'I'm hopeful 2022 will be a much better year. I've lessened the impact by broadening out into producing smaller household items and gifts, which I intend to place online and in local galleries. This should help smooth out the peaks and troughs of commissioned and speculative work for exhibitions.'

Richard is well aware of where his strengths lie, and where there is more work to do – but his exceptional skill has increased confidence in his own design and making abilities. He believes that being flexible and taking opportunities has always paid off and this has been his greatest strength in moving forward. Richard intends to continue in his current set-up until the end of this year, at which point he would like move with his partner to a larger home workshop. Wherever Richard chooses to lay the tools of his trade, there is no doubt he will continue to create works of beauty and the most exquisite furniture.

UPCOMING EXHIBITIONS:

York Open Studios: 2-3 April and 9-10 April 2022

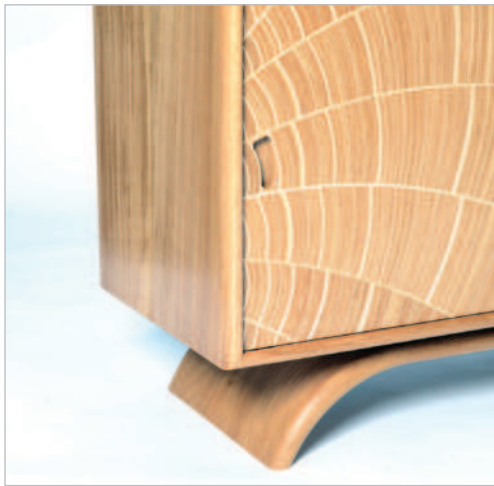
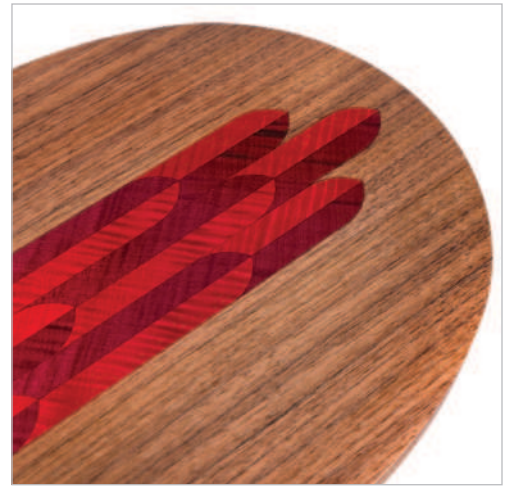
Richard Frost Design: King Tutankhamun Inspired Exhibition, York 3 Oct – 4 Dec 2022

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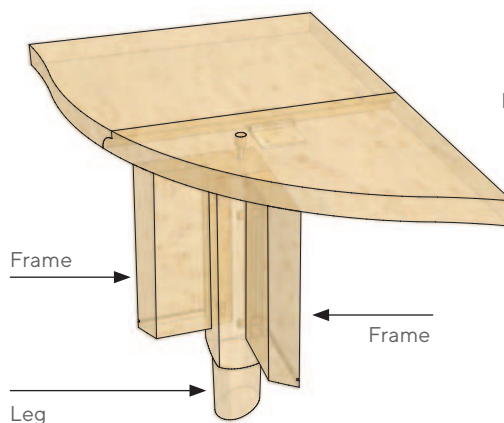
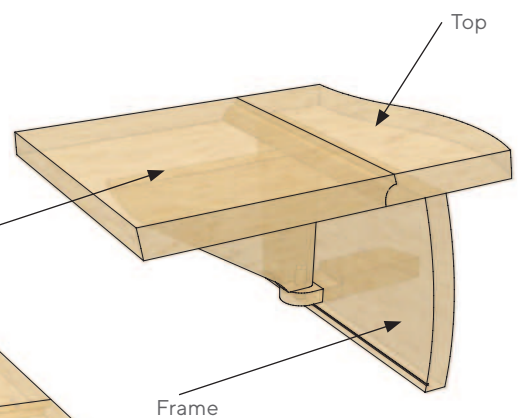
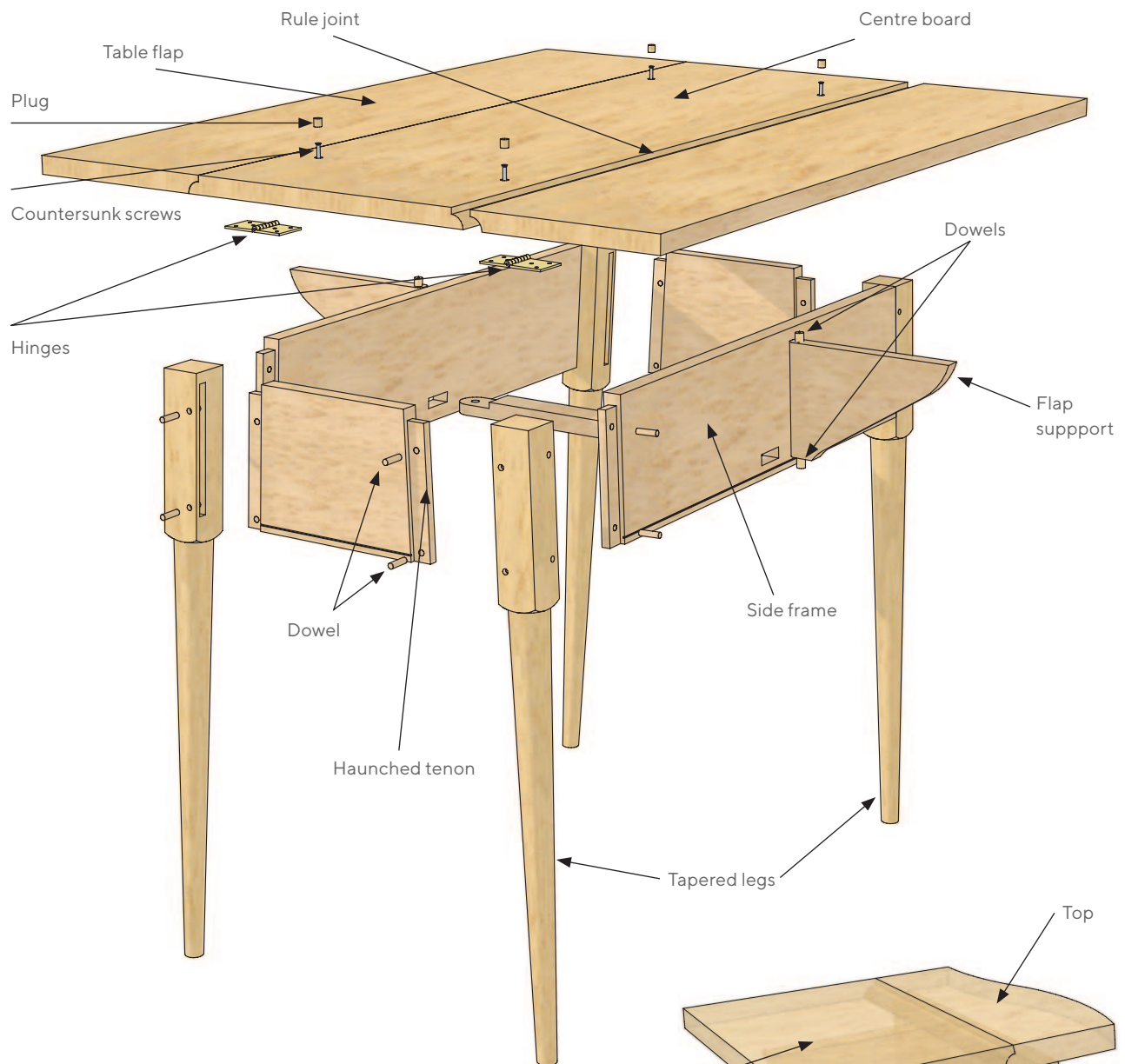


SHAKER-STYLE DROP LEAF TABLE

ANTHONY BAILEY RECREATES A CLASSIC PIECE OF SHAKER FURNITURE

A rare example of a Shaker drop-leaf table in the American Museum, Bath, has delicately taper-turned legs, slightly splayed to give more stability. Woodworker Barry Jackson created his own version, and I have reproduced his take on the piece in bird's-eye maple, sealing with oil before wax polishing. Using such spectacular wood was an act of self-indulgence – harmony and economy are the main ingredients of Shaker furniture.





CUTTING LIST

Top: 1 @ 908 x 320 x 19mm
Leaves: 2 @ 908 x 200 x 19mm
Ends: 2 @ 220 x 149 x 19mm
Sides: 2 @ 613 x 149 x 19mm
Legs: 4 @ 644 x 41 x 41mm
Leaf support: 2 @ 375 x 73 x 19mm
Support rail: 1 @ 320 x 36 x 19mm



PHOTOGRAPHS BY ANTHONY BAILEY/GMC PUBLICATIONS

- 1 Drawing out the frame end assembly is important for accuracy 2 Using the dowel jig to joint the two centre top boards together 3 Two sets of leg blanks glued up from 28mm sawn stock, two per blank 4 Transferring the mortise markings across two leg blanks 5 Using a chisel mortiser to cut the long thin frame mortises – note the width is greater than the chisel used

PREPARATION

Whether using cherry or maple, stable, well-seasoned timber must be selected, especially for the top. Boards of sufficient width ought to be available for the leaves, but the centre board could prove to be more difficult. If so, two narrower boards will have to be butt jointed and dowelled, allowing an additional 2mm on the thickness for finish planing to 19mm after gluing.

Measurements shown in the cutting list are finished sizes. Adding an extra 10mm on both ends of each leg will ease routing the mortises and allow for waste when cutting the angled tops and feet to finished length.

On a piece of strong paper or a suitable board, make a full-size drawing of one frame end assembly, including the full length of legs. This will prove invaluable when setting the correct angle of 2.5° on the sliding bevel and also for checking finished accuracy. Again with accuracy in mind, brad-pointed bits are recommended for drilling the dowel and pivot holes.

LEGS

All mortise and tenon dimensions are shown. Check that the wood for each leg is perfectly square in section – I glued together two blanks to make my legs – then mark out the length, allowing 10mm waste on each end.

Mark the mortises on one leg then transfer the measurement with a try square to the others. Hold each leg firmly in a vice and rout the blind mortises as shown or use a chisel mortiser if you own one. When the full depth of 20mm has been reached, clean out the ends with a chisel, remembering to angle the mortises which accommodate the frame end tenons.

Mark the centre on both ends of each leg ready for turning between centres. The long, straight taper is turned first, followed by cutting the rounded chamfer. This must be done very carefully, taking care not to splinter the corners of the squared section. Finally, sand down through the grades to a fine, smooth finish before removing from the lathe.



6 Shaping the leg down to start the taper using a spindle gouge 7 Planing the taper with a skew chisel – extra care must be taken near the leg’s shoulder 8 Bandsawing a tenon – note the marking at the top where the haunch waste will be cut away 9 An end frame glued and clamped

FRAME SIDES AND ENDS

You can use a router or a bandsaw to cut the tenons. Particular attention must be paid to ensure that these faces are cut accurately to length and shape. Clamp each frame side and end firmly to the bench during this operation, checking with the leg mortises for fit before determining the final depth of cut.

When this is done, remove the haunch waste from the top end of each tenon and dry assemble the two frame ends. These can now be checked against the full-size drawing before marking and bandsawing the leg tops level with the top side of the frame ends. Mark out and cut the legs to length, taking care to maintain the correct angle at the feet.

Dry assemble the frame, checking all is square in plan view. Before taking it apart, mark the ends of the frame sides to correspond with the ends of the leg tops. Remove the sides and plane down to the lines. Mark out and cut the 12 x 36mm wide through-mortises which accommodate the rail ends. Set

the sliding bevel to the correct angle and use it as a guide when cleaning out with the chisel. A 1.5mm deep groove, cut into the frame sides and ends, provides a subtle decorative touch.

At this stage, glue and clamp the two end frame assemblies only. Allow time for the glue to set, then remove the clamps and drill the dowel holes of the glued joints 6mm diameter x 22mm deep. Glue and fit the dowels, leaving the heads just proud for cleaning up later.

RAIL

Mark out the joints, checking against the full-size drawing for accuracy before cutting. Try it for fit and then as a further check, dry assemble the rail and complete frame to make sure the distance between the rail’s shoulder joints is correct. Mark the pivot hole centres and rounded ends, then drill the holes at the correct angle and shape the ends.

Finally, the upper side is cut to match the bottom face of the leaf support. The complete rail and frame assembly can



10



13



14



11



12

now be glued and clamped. When the glue has set, dowel the remaining joints as with the frame ends and leave it to set. Using a smoothing plane, clean up flush all the projecting dowel heads and joints, and then sand clean, slightly dulling the sharp edges of the posts, feet and undersides of the frame.

TOP

If you haven't made a drop-leaf table before do not be discouraged by the apparent sophistication of the rule joints. With the correct matching bits – in this case a Bosch 12.7mm cove bit and rounding over bit – these can be cut very easily by router.

Arrange the prepared boards to give the most pleasing grain effect, then mark an identification line diagonally across the top faces to keep the correct order and alignment. To make absolutely sure the edges to be jointed match perfectly, I have skimmed them up using a router and straightedge guide. The guide can be cut from 6mm ply, 150mm wide by 930mm long, then hand planed dead straight the full length of one edge.

Clamp the guide and board to a bench, with the guide overhanging at each end of the board. This will enable the router base to maintain a straight path at the start and end of each cut. Repeat this when cutting the joints, but with the straightedge guide positioned to just allow the cutter guide bearing to make contact with the board edge.

Lay the jointed boards upside down on a flat bench and mark out the hinge locations so that they just clear the leg posts.



15



16

10 Small dowels help to hold the ends together and add a decorative touch **11** The rail fitted in place showing how the leaf supports locate in it **12** Screwing the top on using slot head countersunk screws **13** The leaf support is carefully shaped to hold the leaf level with the table top when extended **14** The cutout in the underside of the leaf to accommodate the support lower knuckle when the leaf is lowered **15** The outer leaves in the raised position expand the table top greatly **16** This end view shows just how neat and compact this delightful table can be when the flaps are down

Fit the hinges with the pivot pin centre positioned as shown.

Note that when the leaf is down, its leading edge is just above that of the top. Straighten off the ends with a smoothing plane then remove the leaves before marking out the centres of the six screws which secure the top to the frame.

I suspect the Shakers used dowels only, but I shall continue with the following alternative, leaving the option open to you. Drill the 8mm diameter plug holes 8mm deep, then straight through with a 4.5mm diameter bit to give ample clearance for a 32mm long No.8 countersunk-head steel screw. Lay the top on the frame and hold securely in the correct position using two boards, one under the frame and one on the top, both overhanging to enable clamping. Bradawl through the pre-drilled holes and drive the screws in lightly.

Remove the clamps and boards then place them upside down and leave them on the bench. From 9mm diameter dowel, cut the 9mm long plugs and keep for later.

LEAF SUPPORTS

Mark out and cut the supports, with the direction of grain running lengthwise. Plane the tops and bottoms carefully to the lines before marking the dowel hole centres. These 18mm-deep holes must be drilled very accurately, ideally using a pillar drill with the support held securely in a vice.

Finish shaping, then check for fit between the rail and the top as shown. If all is well, cut the upper and bottom pivot dowels,

26mm and 28mm long respectively. Sand a slight chamfer on the ends then glue them in. Re-fit the leaves, just lightly tightening one screw in each hinge flap.

Mark out the leaf-support dowel centres and the position of the 5mm-deep recesses which accommodate the rail's projecting ends. Remove the leaves and top, chisel out the round-bottomed recesses and drill the two 10mm-deep dowel holes at the correct angle.

ASSEMBLY

Apply a thin coat of wax polish to the leaf support pivot dowels and their respective holes. Fit the supports into the rail ends and lower the top board into position. Screw down firmly then glue and tap home the plugs, leaving the heads slightly proud.

Before reassembling the leaves, the finish will have to be applied to the rule joints because some parts will be inaccessible afterwards. When the leaves have been fitted, allow sufficient time for the glued plugs to set, then sand down the complete top flat and smooth. Slightly rub down the outer edges and lower the leaves and remove all dust, especially from between the rule joints.

FINISHING

The Shakers used to stain their pieces before finishing with varnish or thinned, boiled linseed oil. Preferring not to use stain, I have used a proprietary brand of already thinned wood-reviving oil. This was rubbed in well and left to dry before wax polishing.



CARVED LOUIS XVI ROSETTE

JOHAN ROUDY DEMONSTRATES TWO DIFFERENT WAYS TO CARVE THE SAME PATTERN

To illustrate the Louis XVI style, I will carve a rosette in two different ways from the same design. The first one can be carved directly on a piece of furniture or woodwork, while the second can be freely glued as an appliqué. It is interesting to see the similarities and differences of the work from one technique to another and this will also give you more versatility in the way you use this pattern. In order to help you, the drawing includes a sectional view of a median and diagonal cut of both rosettes.

The rosette was a commonly used decorative motif in the time of Louis XVI. There are countless different patterns, from the simplest to the most sophisticated, most of the time inscribed in a circle or a square. They can be found on panels or furniture, especially on the legs of tables or seats.

I used cherry as this was part of a commission to decorate a bookcase. If you have several rosettes to carve, I'd advise to set them all on the bench and to carve them all together. You will more easily get good regularity by repeating each step on each rosette than to carve them separately. Oak, lime or walnut would work well for this project, and might even be easier to carve, as cherry can be difficult to carve against the grain.

YOU WILL NEED

Gouges:

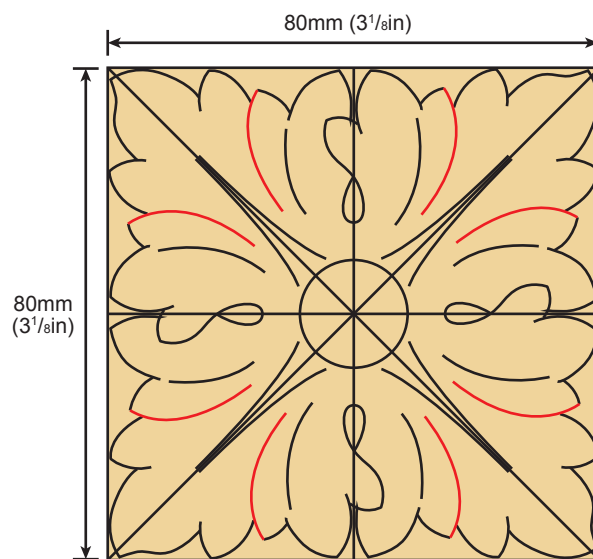
- No.3, 16mm
- No.4, 6mm
- No.5, 5, 6 & 8mm
- No.6, 12 & 16mm
- No.8, 10mm
- No.9, 6mm
- No.11, 2 & 10mm

Other tools:

- 5mm V-tool
- Skew chisel
- Fretsaw

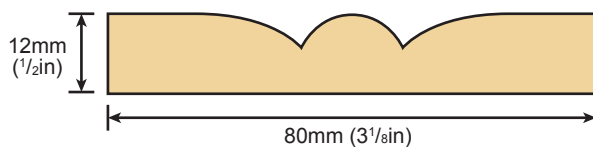
Wood:

- 1st rosette 100 x 100 x 12mm or thicker
- 2nd rosette 80 x 80 x 12mm

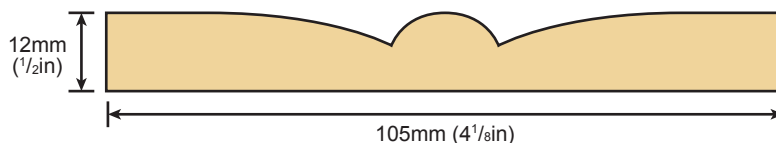


1st Rosette

Overlapping leaves profile

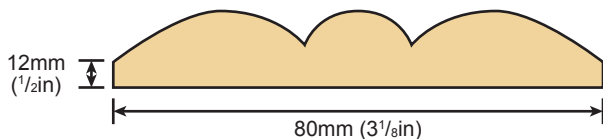


Corner leaves profile

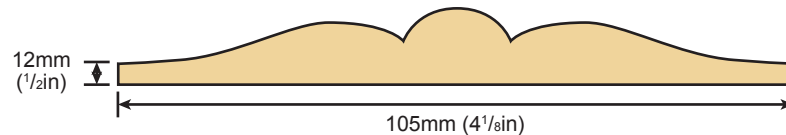


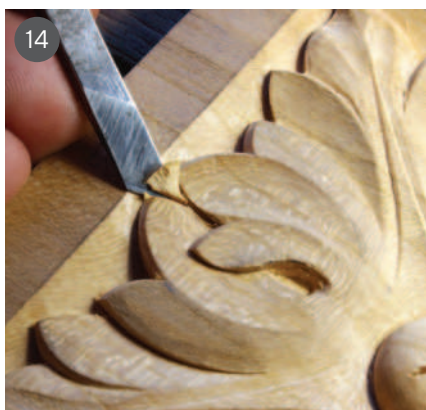
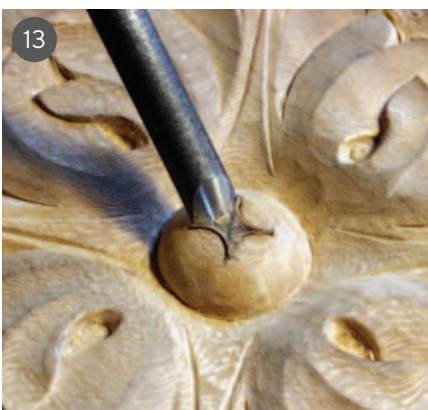
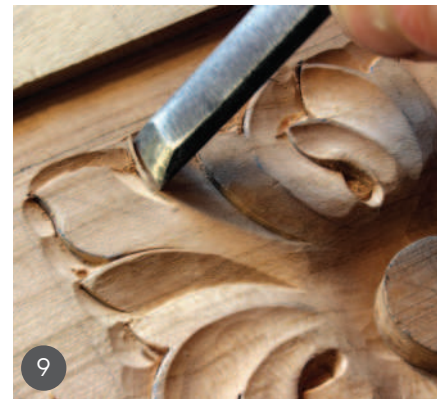
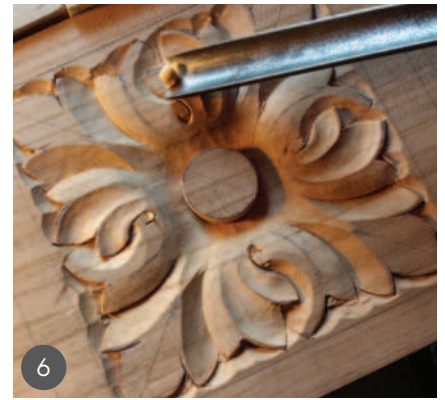
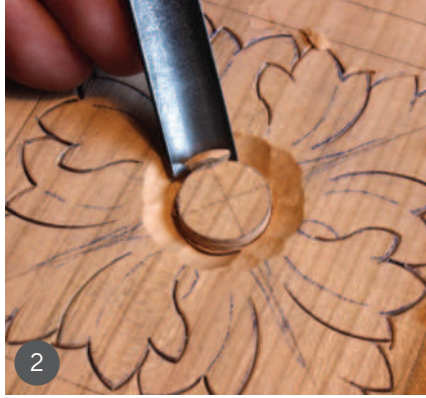
2nd Rosette

Overlapping leaves profile



Corner leaves profile







FIRST ROSETTE

1 Transfer the design on to the wood with carbon paper. Use the No.5, 6mm, No.5, 8mm and No.6, 16mm to set in the outlines of the leaves. The cuts on the side of the overlapping leaves, drawn in red on the pattern, are stabbed deeper on the outside, fading out towards the middle. You don't need to set in the 'eyes' of the leaves at the moment. Set in the central bud using a No.6, 12mm.

2 Starting from the eyes towards the centre, carve away the wood all around the bud with a No.6, 12mm. Deepen the stab cuts until you reach 4mm or 5mm deep. Using a No.11, 10mm, carve a groove along the cut of the overlapping leaves and aiming at the bud, deeper towards the bud. Don't worry about a little tear in the middle, it will be cleaned at a later stage.

3 At the bottom of the grooves, set in the cut again using a No.6, 16mm and use the same tool to give an angle to the secondary lobes of the corner leaves. Follow the sweep of the gouge to let the cuts meet on the centreline near the bud. Make sure to stop at the end of the stab cut.

4 Use a No.3, 16mm to round the overlapping leaves' area on the sides and towards the bud, all around the eyes of the leaves. Follow the drawing of the main lobes to get a smooth shape. The grooves made in step 2 should completely disappear. Hold your gouge firmly and make slicing cuts to avoid damaging the bud or the corner leaves.

5 Use a No.6, 12mm to clean the stem area towards the bud and let the leaves connect all together. Then, set in the eyes of the middle leaves with the veiner.

6 Clear around the upper leaf using a No.5, 8mm and swap to a No.8, 10mm

to carve a groove on the main and small lobes in the middle. Pay attention to the grain direction. The wood won't react the same way along or across the grain. Remove the waste progressively to avoid some parts breaking or splitting.

7 Carve the groove of the lower leaf using a No.5, 8mm. Follow the course of the eye to let the base of the leaf run under the upper leaf and enlarge the groove to give the lobe a smooth curve. Set in the remaining cut of the eye using the No.5, 5mm gouge. The waste should pop out easily.

8 From the beginnings of the lobes, use a No.4, 6mm gouge to give the stem of the corner leaves a sweep curve towards the bud. That will also give a better shape to the cut of the secondary lobes.

9 Using a No.6, 16mm gouge, make a stab cut fading out towards the stem along the groove of the secondary lobes and carve a 45° angle on both sides of the cut to create an edge that will catch the light and separate them from the main lobe in the corner. You might use a gouge a little flatter if you feel that the curve of the tool is too marked.

10 Make the same angled cut on the edge of the overlapping leaves. Use the No.5, 8mm gouge for the main lobes and a No.5, 6mm for the secondary lobes. In the centre, on the main lobe of the upper leaf, the cut will melt into the shape of the groove creating a slight curve.

11 Redraw the stem and carve it with the 5mm V-tool. Alternatively, use the No.5, 6mm to carefully remove the outer edge of the cut. That will give more delicacy to the design and more roundness to the base of the overlapping leaves. The grain direction shouldn't be much of a problem for this step.

12 Slightly round over the edges of the corner leaves with a flat gouge and use the No.9, 6mm to carve a groove on each side. Carve the groove a little deeper towards the curly side of the leaf to give more movement.

13 Carefully round the bud using a No.5, 8mm on the sides and the No.6, 16mm on the top. You can start to remove some wood along the grain, then across the grain, and get rid of the remaining angles using the No.5, 8mm. Hold your tool firmly to avoid biting the leaves around. Once done, set in the opening of the bud with the No.7, 6mm gouge or No.5, 6mm if you want it more open. Take care to centre it well. You can draw it first if it helps. The waste should pop out easily.

14 Use a No.3, 16mm and No.4, 6mm to remove the waste all around the design. You may have to deepen the stab cuts, especially in the tight corners. A skew chisel is useful to clean the deepest and tightest areas.

SECOND ROSETTE

15 Transfer the design on to the wood and cut it with the fretsaw. To clamp it easily on the bench, glue it on a scrap wood with a sheet of paper placed between. Set in and clear the bud as in step 2. Draw a line 15mm from the edges and use a No.3, 16mm to round them down from the line to 5mm thick at the tip of the leaves.

16 Using a No.11, 10mm, carve a groove along the overlapping leaves, but this time start from the centre down towards the edges. This will mean you are cutting with the grain so minimising the risk of experiencing grain tear out. On the corner leaves, remove the waste between the grooves with flatter gouges.

17 Set in the overlapping leaves area using a No.6, 16mm. Clear the outer side of



the cut on the corner leaves and round the overlapping leaves on the sides and towards the bud with the No.3, 16mm to create a smooth dome shape. The eye areas are left at the original height.

18 As in step 4, clean the corners towards the bud using a No.6, 12mm. Then, hollow the corner leaves with a No.6, 16mm gouge to give them an ogee curve.

19 Use the same tool to carve the secondary lobes of the corner leaves along the cut previously made. To avoid problems with the grain direction, start from the top and enlarge your cut progressively towards the tip of the lobe. Deepen the slab cuts if necessary.

20 Redraw the overlapping leaves and set them in using No.5, 6mm and 8mm gouges, and the veiner for the eyes. On the upper leaf, set in the back of the secondary lobe. Be sure to hold your tool vertical. If you hold it perpendicular to the surface of the wood, you would end up with some undercutting, which is not wanted here. Clear around the upper leaf with a No.5, 8mm.

21 Carve the grooves of the leaves using a No.8, 10mm as in step 6. Even more than in the first rosette, pay specific attention to the grain direction for this step. Remove the wood progressively and avoid going against the grain.

22 On the corner leaves, the secondary lobes are shaped basically the same way as the first rosette in step 8, using a No.6, 16mm, though the stab cut can be made slightly deeper at the bottom to take advantage of the thickness of the wood. The angled cut on the edge of the leaves is also carved the same way. However, on the overlapping leaves, it is only made on the secondary lobe, which is next to the eye.

23 The main lobes are rounded a bit more than the first rosette. Instead of carving the stem from the outside towards the centre, run the V-tool near the bud to end towards the corner. Then you can carve the grooves at the tip and carve the bud as in step 13.

24 Use a large chisel to gently separate the carving from the background. Insert your tool along the grain in several places, and the paper should break and liberate the rosette. Clean the underside using a scraper. You can add a little undercutting on the overlapping leaves. Hold your carving on a piece of cloth and use the V-tool to remove some waste between the lobes. Then use a flat gouge to give a clean angle to the leaves.

25 The two completed rosettes can now be applied to furniture in whatever way you wish.

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BL MOTOR

ALL NEW 18V LXT FINISHING SANDERS



18V LXT BRUSHLESS FINISHING SANDER: DB0380 & DB0381

DB0380: Orbit diameter $\varnothing 2.0\text{mm}$, Orbits per minute 4,000/8,000/12,000opm, Sanding strokes per min 8,000/16,000/24,000spm, Paper Fastening system Clamp / Hook & loop, Pad size 93 x 185mm, Abrasive Paper size 93 x 228mm, Net Weight 1.9-2.2kg. **DB0381:** Orbit diameter $\varnothing 2.0\text{mm}$, Orbits per minute 4,000/8,000/12,000opm, Sanding strokes per min 8,000/16,000/24,000spm, Paper Fastening system Clamp / Hook & loop, Pad size 93 x 185mm, Abrasive Paper size 93 x 228mm, Net Weight 1.9-2.2kg, AWS Bluetooth dust extraction function.

makitauk.com/products/DB0380RTJ makitauk.com/products/DB0381ZU





A MODERN DESK

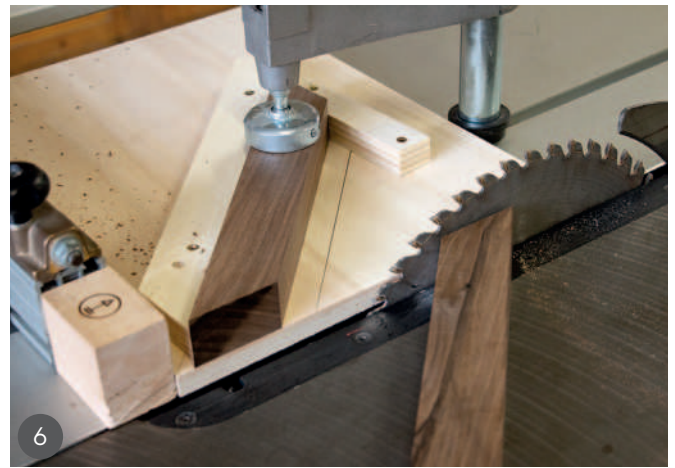
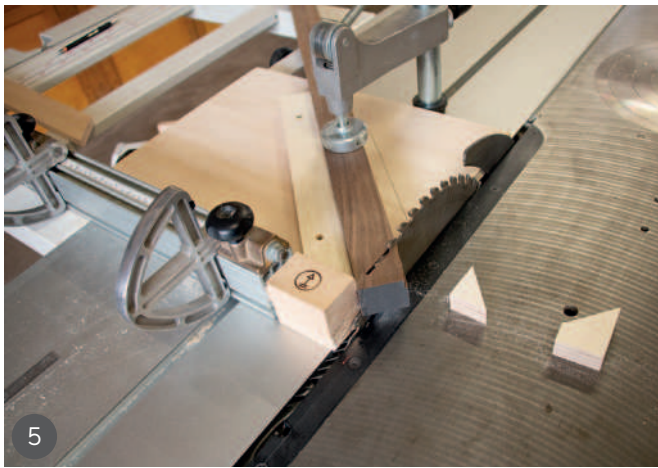
VASCO ARALDI'S CONTEMPORARY
DESK COMBINES FUNCTION WITH
STYLE AND ECONOMY WITH LUXURY

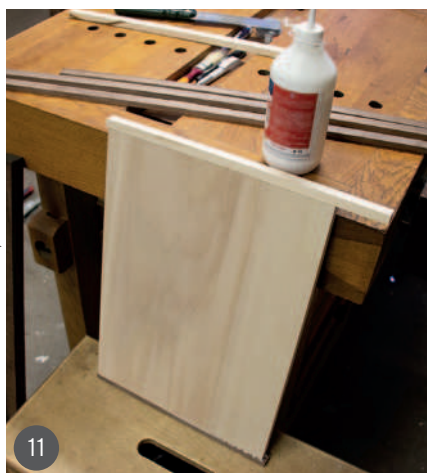
Sooner or later we all get to try our hand at building a desk. And what does it take? A top, two trestles, maybe some drawers, a little legroom ... and that's it. In principle, that's all it needs but what about aesthetics? How can you combine airiness with functionality and capacity, perhaps even looking for a legitimate saving on materials? You can see the solution in this project which, as well as uniting function with aesthetics, also combines two very different materials: the economical poplar plywood and the noble walnut.

THE DESIGN

This desk has a predominantly rectangular top moved on the front by two oblique cuts. It rests on three trapezoidal frame supports arranged asymmetrically and with the smaller base at the bottom. The two on the left are close together and frame a pair of chests in which the drawers slide. The space for the chair is on the right and the trestles that surround it are joined by a pair of crosspieces; one that runs under the top and the other lower down, arranged so as not to interfere with the legs of the desk's user.







PHOTOGRAPHS BY VASCO ARALDI/LEGNO

1 A series of scale experiments were made to evaluate the size and strength of the supports **2 & 3** The boards were cut almost to size to reduce any warping and then, after thicknessing, they were stacked along the grain. After 24 hours of rest to stabilise the wood, the pieces were then machined to the final section **4** A life-size drawing can be useful for appraising the proportions and the cutting angles in order to prepare any additional supports **5 & 6** When the cutting angles exceed the limits of the machinery, a blade edge slide can be set up with stops calibrated as needed, and, by adding a stop, cutting to the final dimensions **7 & 8** The Domino system allows you to create joints by inserting tenons. The choice is wide and the joint remains invisible **9** The frames are a trapezoidal shape so are difficult to tighten with regular clamps. Clamp belts are the best solution since they exert pressure in a circular way and virtually eliminate joint slippage **10 & 11** The boxes are made from poplar plywood edged with either walnut or tulipwood. The dark (walnut) parts will remain in the original colour and the light parts will be painted white like the rest of the panels **12 & 13** The panels must have a regular shape so all the edges have to be cut off flush with the rough sides. This can be done with the tablesaw (leaving the panel a little longer at the start) or with a hand saw for flush cuts

The most important elements in aesthetic terms, if lightness is a goal, are of course the supports and they were the first pieces to be made. After rejecting the idea of obtaining them from a panel, the choice fell on solid wood. A closed frame structure offers the same level of stability as a continuous piece but with less visual encumbrance. In this way it is possible to expand a little on the section, which in this case is a 50 x 40mm rectangle. Beyond the equipment necessary for processing the solid wood, there are no particular difficulties and given the fact that the three elements are identical, it is possible to approach the processing in a serial way starting from the squared material.

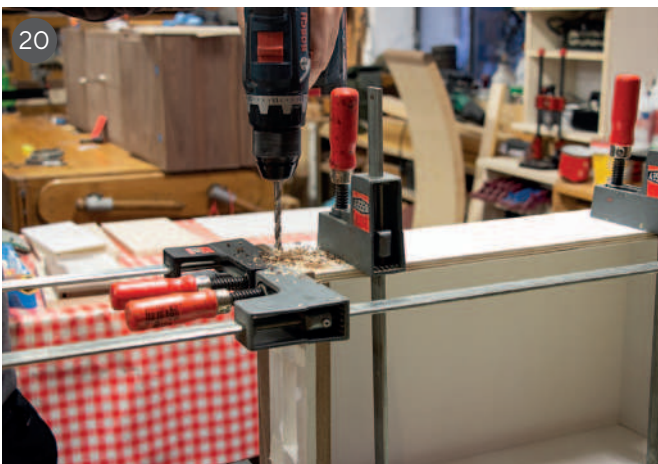
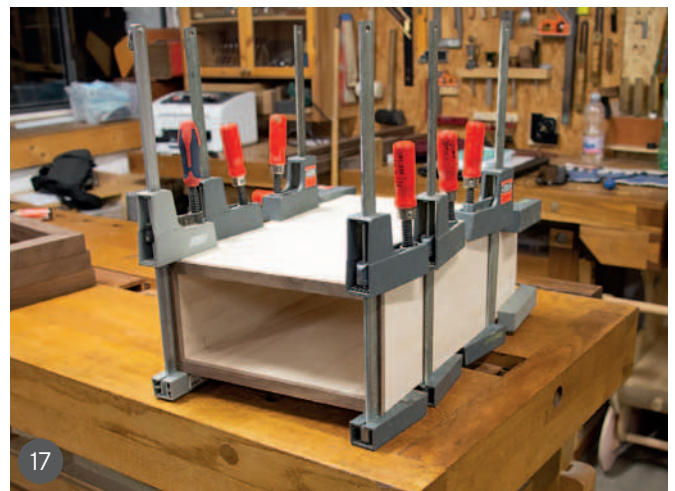
The frames are joined without the use of traditional joints. In their place you can use dowels or Domino tiles. In this case,

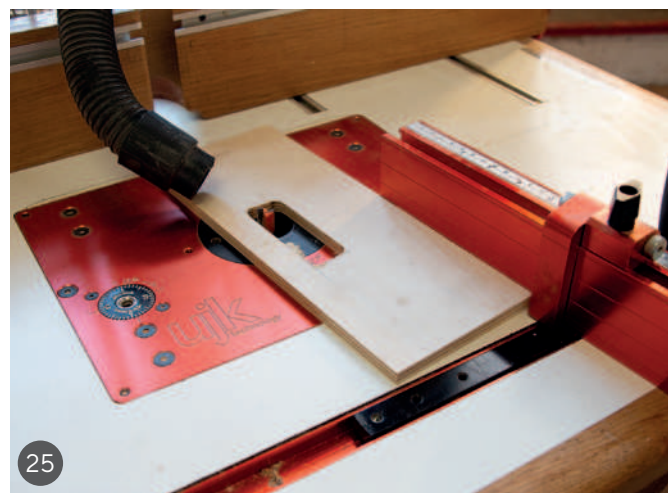
biscuits do not offer adequate guarantees of tightness and are not recommended.

THE BOXES AND DRAWERS

The panels for the desk compartments, or boxes, were made from 18mm poplar plywood. This construction method was chosen for simplicity and the only variant was the type of edging, one side was edged with solid walnut and the other with tulipwood – everything that is not walnut will be painted white so any light wood could be used here.

A 45° joint reinforced by biscuits was chosen to construct the compartments. The preparation cut was done on the tablesaw by tilting the blade. Before moving on to this phase all the excess





14 To cut the second side at 45° without the first bevel slipping into the gap between the parallel fence and the bed of the saw, a panel about 10mm thick must be fixed on the bench **15** The fastest way to joint the boxes is to insert biscuits. They are positioned more internally to prevent them breaking through on the visible face **16** It may be necessary to raise the position of the blade by inserting a piece of wood on the tool's tilting platform **17** As well as joining the four sides of the box the biscuits also prevent the 45° cuts from sliding when the clamps are applied **18** For the joint with the sides, the drawer fronts have a rebate two-thirds of the height and as wide as the thickness of the sides. The parallel fence can be set as an end stop and then, with a series of side-by-side cuts, cover the entire width until the rebate is completed **19** The groove that houses the bottom of the drawers was made with two side-by-side saw cuts. The process is identical on all pieces and none of the grooves will be visible **20** With the drawer assembled (it is preferable that the glue is almost dry), dowels were inserted from the outside **21** I traced the centre and outline of the hole onto the face plate template **22** The sides of the hole were inclined to accommodate the trapezoidal shapes of the supports **23–25** After roughing the shape with a Forstner bit, the router table was used to cut the long sides. To maintain the same precision, the short sides were cut using the template

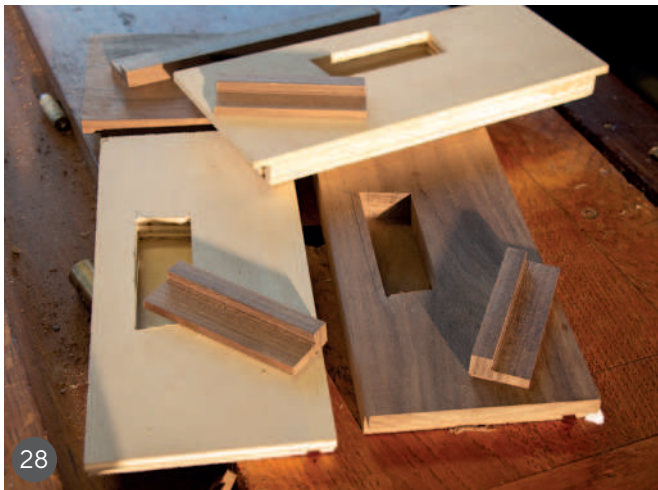
wood on the edges was cut to size to bring them to the exact thickness of the panels. This can be easily done by hand with a smooth saw and a well-adjusted planer.

The 45° cuts were made in two goes: first on one side and then, after placing a temporary overlay against the saw guide, on the other side.

With the boxes complete, I could move on to the drawers. Since the boxes are open on two sides, I could play with the two colours of the edges: the white of the panels and the veined brown of the walnut. The drawers have in fact a double front; solid wood on one side and panel on the other. They were made in a very simple

way with only the help of the tablesaw. The fronts have a rebate that accommodates the 15mm sides and, on all pieces, there is a groove that houses the bottom. After assembling them, they were reinforced from the outside by dowels that go through the sides and fix in the thickness of the front.

Before putting the drawers together, I made a cut-out in the thickness of the front and inserted the drawer handle on the upper part of this cut-out. As I had to make eight face plates, this process was best done using a plywood template for the router and a short bearing-guided cutter.





26 & 27 The routing was also preceded by roughing out with a Forstner bit. Then I moved on to the final cut. The template was used with a pair of lateral stops to machine all the pieces in the same way **28** After eliminating the circular corners left by the router cutter, the handle was fitted **29** The handle was cut to size at the same angle as the hole and fitted with the help of a Japanese type clamp with a small piece of scrap placed inside the hole **30** The shape of the top was decided during construction. Since the overall dimensions were known, the 18mm panel was placed on the supports. A series of clamps placed on the bases guaranteed stability in this delicate phase **31** To obtain the shape of the solid wood that closes the top, I started from a rectangular piece cut along the grain with an inclined cut to the bandsaw **32** The resulting faces were then planed by hand to remove the marks left by the saw **33** The frames were applied by means of a cut-out that expands the gluing area and makes the join with the top more solid. This can be prepared with a cut on the spindle moulder or with two blind cuts on the table. They are then cut by perfectly calculating the bisector of the angles which, after the shaping of the panel, are no longer at 90° **34** To be sure that the top and frame are at the same height, the tilting face of the biscuit joiner needed to rest on the top of both pieces **35** The join between the top and the frame uses numerous pieces. The smaller ones have the same function as the biscuits and are used for alignment on the vertical axis. The others bring the pieces together without joints

THE TOP

The top of the desk had to be measured when starting the project, even though its construction was tackled last. Length and depth are parameters determined by the available space. All you need is the maximum measurements which can then be modified to your liking. The top of this desk has the front broken into two segments of different sizes that form a slight angle. One way, among many, of camouflaging the 'presence' of a piece of furniture.

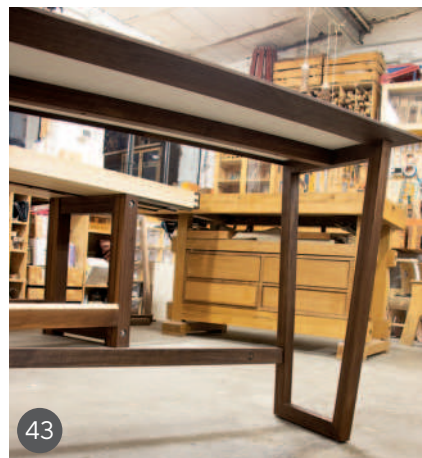
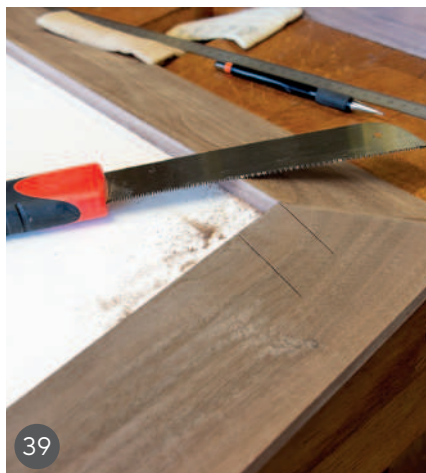
The top combines the two materials: a plywood panel for the central part and solid wood for the frame. The latter, although it is thicker than the panel (38mm), has a bevel on the lower part that brings the outer edge to a thickness of only 10mm, considerably lightening the visible thickness of the top. This was obtained with a circular bandsaw before hand planing to finish. The circular bandsaw with a guide track is the best system for cutting out-of-square shapes on longer sections track. The time saved compared to setting the tablesaw is truly remarkable.

The faces in this process were on the lower part of the top. I recommend making the final touches once they are assembled on the top.

THE FINAL ASSEMBLY

It's important to note that the frames and the top of this desk have two different finishes; a 'lacquer' was used on the plywood panel and a transparent finish on the solid wood. At the time of assembly, if the finish on the top was very thick, a small step could have been created. Therefore, it's a good idea to account for this when you're preparing the flaps on the frame. In addition, the biscuits on the edge of the panel should be applied after the latter has received at least the first two primer coats.

With the top furnished with its frame it was now possible to assemble the three parts. I started by placing the two frames that house the boxes, positioning them at a height that is comfortable to reach and altering the spaces between them to create shelves of useful height. Once the definitive location of each piece was found, the boxes were screwed to the frames from the inside and slots were made on the lower part of the front frame so that the upper crosspieces of the external frames could rest on the lower face of the top. For the central one, this machining was not necessary since its position coincides with the maximum depth of the plane.





36 When the glue was dry, work with the planer or the sander to join the inclined faces in the transition from one side to the other
37 The compartments for the drawers had to be inserted first so as to have at least one stable element. Once their final height was established, they were fixed to the supports with eight screws each, inserted from the inside of the sides **38** The outermost supports abut against the tooth that the frame forms on the lower part of the top. This made it easier to keep them locked while, with the knife, I made the marks for the notches in the thickness of the frame **39** Following the marks, I made a couple of cuts across the grain with a thin saw **40** Then I eliminated the waste with a chisel, bringing the bottom of the recess flush with the lower face of the top **41** Screws passing through the upper crosspieces of the trapezoids were sufficient to act as supports. The top is in plywood and so is not subject to expansion so it is not necessary to slightly elongate the holes as solid wood would require **42** Once the distance between the coupled and single supports was established, the crosspieces were inserted using the Domino system of a single but sturdy tenon **43** The task of the crosspieces is to buttress the base on the major axis. The right support, being single and anchored to the top only by two screws, could flex. Adding two connections to the chest of drawers made it more stable **44** After giving a first coat of sealer to the whole piece and sanding it, the areas to be painted were masked with painter's tape **45** Both the painted and solid wood parts have the same finish: a 15 gloss satin acrylic. The final effect gives more depth to the wood grain and more brilliance to the white **46–49** Two colours, four variants. Playing with the different types of edging and fronts made it possible to create quite different arrangements **50** The completed desk combines function, aesthetic appeal and economy

Thanks to the cut-outs and the join with the boxes, all three frames found their final position and it was then possible to take the measurements to cut off the two reinforcement crosspieces placed on the right side. One runs under the top and the other, on the back side, is located about 200mm high.

FINISHING

The desk's appeal plays on the alternation of two colours. The walnut wood was left natural, with only a transparent

finish, while all the panels were painted white. This mix of colours required a fair amount of masking of the solid wood parts but the final result is quite satisfactory. The desk has its own identity and a recognisable volume but, thanks to the alternation of colours, it appears lighter than it is. It is also both functional and economical. Although the walnut is fairly expensive, limiting its use made it possible to get by with only a single 50mm board. The cheap poplar plywood did the rest!



TEAK OCCASIONAL TABLE

LOUISE BIGGS FITS A NEW GLASS TOP
INTO A CONTEMPORARY TABLE

This teak occasional table had been inherited by my clients without a glass top, which needed to be replaced. I was also commissioned to adjust the colour of the wood: although similar in colour to their other teak furniture, they wanted me to tint the finish of this table to match their other pieces more closely, and to generally spruce it up a bit.

FITTING THE GLASS TOP

1 A new toughened glass top had been made, but when the clients tried to place the glass in the rebate it did not quite fit. They asked if I could just trim the rebate a little until it fitted.

2 This would be fairly straightforward, I thought when I visited the clients. I would need a block shaped to the inside curve of the top. Marked and cut out

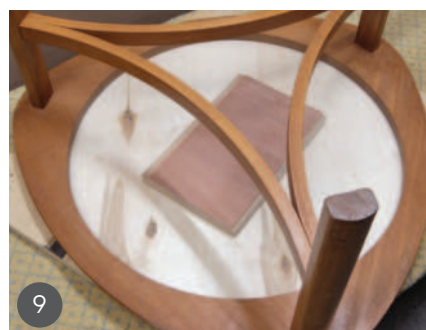
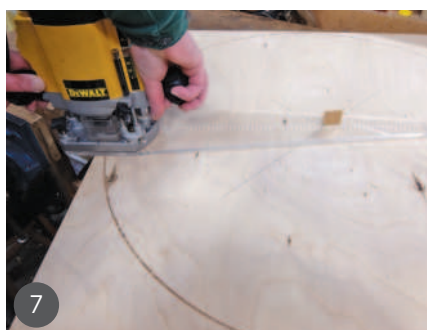
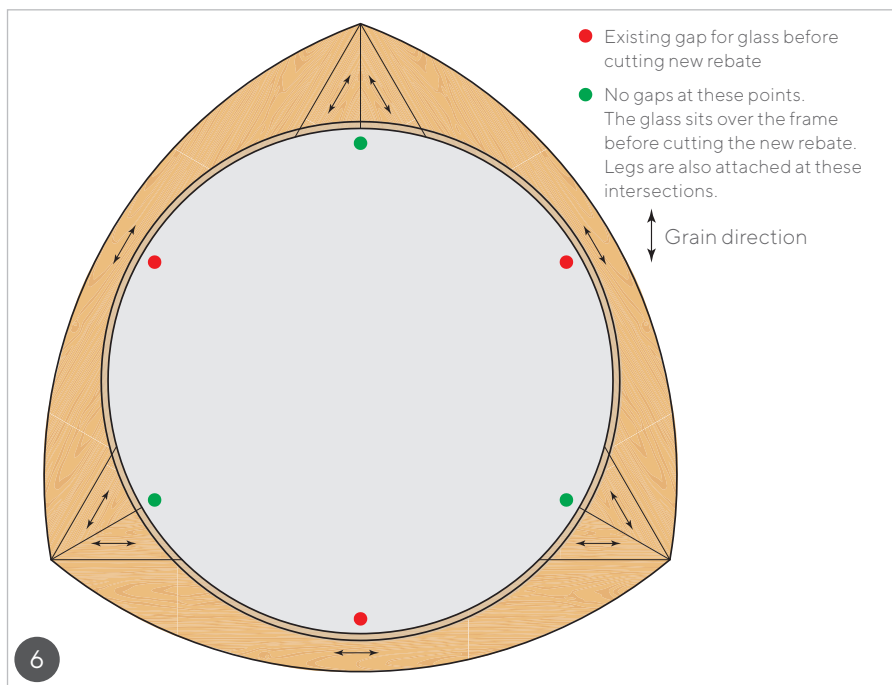
on the bandsaw, the block was cleaned up with a spokeshave. The shape was checked at several points around the top.

3 The block had a hole cut to allow the cutter to pass through before being fixed firmly to the router base plate using double-sided carpet tape and the cutter set to remove 1mm from the rebate, giving 2mm overall and enough clearance for the glass. Glass should always have a breathing space to allow for any movement in the materials.

4 Already knowing there was one problem to overcome in that the surface veneer on one half of each rail would be cut 'against the grain', I decided to set the cutter just above the veneer surface and check that the block would run smoothly around the circumference.

5 In doing this I noticed a problem. The router appeared to move in and out around the circumference and cutting like this would create a wavy rebate, not a round one. Going back a step, I centred the glass over the rim and found the slightest gaps at the mid-points of each rail (right hand) and a tight spot at the intersection with each leg (left hand).

6 It was evident that the table rim was no longer round. As the finish was going to be tidied up I cleaned up the rebate to find that the top rim was formed in many sections, not just three pieces as I thought, but with two angled blocks at the point where each leg attached. This had caused the rim to move differently at several points around the circumference. Picture 6 shows a plan view of the frame, without the veneer, showing the



construction of the top frame with grain directions and where the original rebate was loose and too tight.

7 In order to re-cut a true circle I was going to need a pivot point in the centre of the table and enough strength to support the router. The first stage was to rout a circle out of a piece of 6mm ply. The circle would need to fit as tightly as possible into the rebate so as not to

move around, while keeping the pivot point in the centre. Using one of my Perspex circle cutting jigs I marked the board as to the radius required, then using a combination of cutter sizes and different holes, I set the router to cut to the outside of the marked radius.

8 The plywood disc was fitted into the rim, any slight adjustments at the tight spots by the legs were reduced as required

with a spoke-shave and using double-sided carpet tape the disc was firmly held.

9 With the plywood being the same depth as the rebate the disc would be cut away as the new rebate was cut, thereby removing the pivot point. Waste pieces of board were used to pack out the thickness of the rim until flush on the underside and these were held with double-sided tape.



10 A long piece of ply was positioned from inside one leg across the frame to the opposite rail. This was pinned to the table rim and to the packing blocks in the centre. Once it was turned back on its feet the plywood disc was pinned to the waste blocks from the top. All the pieces were now firmly fixed, so there was no chance of the pivot point moving as the new rebate was cut.

11 The router and jig were adjusted between cutter size and pivot holes until the combination allowed for a rebate cut to 1mm larger than the size of the glass. This would cut the rebate near the intersections with the legs while barely touching the rebate at the mid-point of



the rails, as explained in step 5. The first cut was shallow in order to cut through the veneer and prevent tear-out where the router went against the grain.

12 Lowering the depth of the cutter each time, the rebate was cut in three passes, the last pass cutting through the base of the plywood disc. The plywood disc was removed and the glass test-fitted before the remaining support boards were removed.

WORKING ON THE TABLE FRAME

13 The table was de-waxed and degreased and cut back with 240-grit abrasives. This would hopefully remove the minor



scruffs and scratches on the rim and show if this course of action would be sufficient to re-coat with a tinted lacquer to match the door sample supplied. After one light coat of lacquer it was evident that the legs and top frame would need to be stripped to give a satisfactory finish. Where the existing lacquer had worn through, it created a problem with a two-tone finish. The stretcher rails were masked off using newspaper and masking tape and the stripper applied and left to work.

14 To reduce the amount of wire wool used, the initial surface finish was removed using a flat, wide paint scraper. I made sure the corners of the scraper were rounded to prevent them digging into the surface.

15 Subsequent coats were re-applied and cleaned off using wire wool. Grade 3 is preferred for this type of work as it will not clog up quite as quickly as the finer grades. Once clean of finish and stripper, the frame and legs were neutralised with methylated spirits and when thoroughly dry the sections were re-sanded with 240-grit abrasive to remove any final residue from the stripping process.

16 Finally the table legs and top frame were spray finished and tinted to match the colour sample. With the glass now fitting within the new rebate the table was ready to go back to its owners.

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EMPLOYING AN APPRENTICE

THERE ARE MANY BENEFITS TO HIRING AN APPRENTICE; A CHANCE TO SHARE YOUR SKILLS AND GIVE A LEG UP. HERE'S OUR GUIDE TO TAKING ON A POTENTIAL NEW MASTER FURNITURE MAKER

Apprenticeships have been a part of business since the Middle Ages. Young people from wealthy families were often sent to learn their trade, living with a host family and absorbing the knowledge of their new master. By the mid-1500s the first national system of apprenticeships was in place, complete with rules and regulations. Among them the directive that no apprenticeship should last longer than seven years and no master should have more than three apprentices. Cheap labour was discouraged. This pattern of apprenticeship continued for several hundred years. However, by the 19th century new regulations had weakened statutory controls. Although apprenticeships were still relatively popular at the end of World War II, by the 1960s apprenticeships had fallen out of favour. Instead they were seen as clunky, restrictive and lacking any kind of real benefit to business.

APPRENTICESHIPS TODAY

As a result of reform, apprenticeships have made a comeback, thanks in part to better financial incentives for small businesses and better conditions for trainees. Why would you employ an apprentice and is it really a good use of your time and money to train someone? All the evidence points to the fact that if you're a small to medium enterprise your business will benefit from offering apprenticeships. Here are three reasons why:

1. Talent – your employees are the backbone of your industry. They create and deliver your products and services; they act as your brand ambassadors. The search for talent that fits can take time and it takes time for an apprentice to get to grips with your culture and ways of working. Having someone who will learn to produce work to your standards, your way, is invaluable. An apprentice will be able to get the job done when you are sick or away. They will not only get to know your products and methodology inside and out, they'll understand your work environment and culture too; an intangible but advantageous piece of knowledge for both. You get the chance to carry out quality control on your trainee. Put them through their paces and ensure they are a good fit before having them sign on the dotted line and into a permanent role.

2. Sustainable recruitment – whether you take on one apprentice or several, you're future proofing against the inevitable staff turnover.

Hiring via an agency is not only time consuming, it's also costly as are the job advertisements and the time to prepare job descriptions, person specifications and more. The interview process itself can take months. Investing in your teams through apprenticeships gives you choice. It provides you with a greater range of staffing options and the freedom to train your apprentice up in the areas of your business that are traditionally harder to recruit to.

It is also a very positive message to the rest of the furniture industry that young talent is welcomed and that you, as a forward-thinking business, are on board with nurturing and developing the workforce of tomorrow. This gives you opportunities to promote your company in many more ways.

3. And then there's you – the boss. While you might be persuaded that your business will benefit, what about you personally? In our modern working climate, success is measured in so many more ways than just a profit. It's even more than job satisfaction or feeling alright about getting up for work again on a Monday morning. Success in business has a deeply personal element. Hiring a young trainee, or an older one – there are no caps on age – and watching skills develop and grow, knowing you are helping to mould a future worker is deeply satisfying. Taking on that responsibility isn't necessarily an easy 'yes'; it requires planning and foresight. Yes, you might benefit from financial incentives and from the advantages above but that knowledge that you've made a difference, provided a real opportunity and set someone on their career path, that's a benefit only you'll be able to measure.

And if you're wondering how you might be supported from the Government's point of view, there are plenty of boxes you'll need to tick, including a commitment to pay at least national minimum wage, give a proper role in your business and payment for when they're training offsite.

In return, you can currently claim incentive payments – check the Government's website for the latest details. There are further incentives for younger workers and for taking on a young person who has an Education, Health and Care plan (EHC) put in place for them by their local authority.

'Good for your business, good for tomorrow's workforce and good for the furniture making community – an apprenticeship might also be the business boost you're looking for'

BASIC REQUIREMENTS

1. There is a minimum of 12-month commitment, essentially a college year. You would need to pay the minimum hourly wage for a minimum of 30 hours per week. This is broadly your only direct cost.
2. The apprentice would need to spend 20% of their time attending college. This would normally be one day per week.
3. If the student is aged between 16 and 18 the government will pick up 100% of the training and assessment costs. If they are older than 19 it is 95%.
4. There are no setup costs nor costs to be paid to the college.

LOOKING TO THE FUTURE

With many industries and businesses battling to keep their heads above water, it's understandable that taking on apprenticeships might not be the top of anyone's list right now. But while you look to keep your own business alive, looking forward to creating a better, more sustainable business model seems like it might just be the right time.

Good for your business, good for tomorrow's workforce and good for the furniture making community – an apprenticeship might also be the business boost you're looking for.

To find out more, go to:

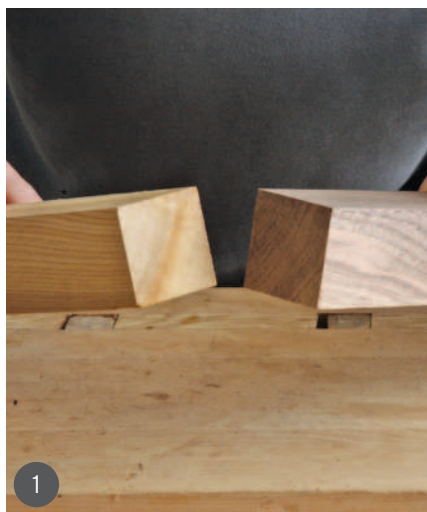
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SPLICED PUZZLE JOINT

JOHN BULLAR PERFORMS A
WOODWORK MIRACLE WITH
THIS INTRIGUING JOINT





PHOTOGRAPHS BY JOHN BULLAR

How does this joint fit together? With a fully interlocked dovetail visible on each of its four sides, it certainly is a puzzle! Functionally, this strong joint splices the ends of two short square posts together into a longer post that might, for example, form the leg of an eye-catching coffee table.

The secret to the way the joint works is in the final stages where the joined-up post is reshaped with a plane, slicing obliquely through a straightforward pair of twin dovetails. All will be revealed!

PREPARATION

1 Start by selecting two woods in contrasting colours, so the details of the finished joint are clearly visible. I used dark walnut and pale elm – both woods that cut crisply and form strong joints. Cut the wood into square sections, just over 40% bigger than you want the final post to end up. This allows for the final re-shaping.

2 For accurate joinery work, you need straight, flat reference surfaces. I enjoy this stage, getting the feel of the wood with a sharp, finely adjusted plane. From bitter experience, I know that good preparation at the start of the job saves a lot of sweat and tears later on!

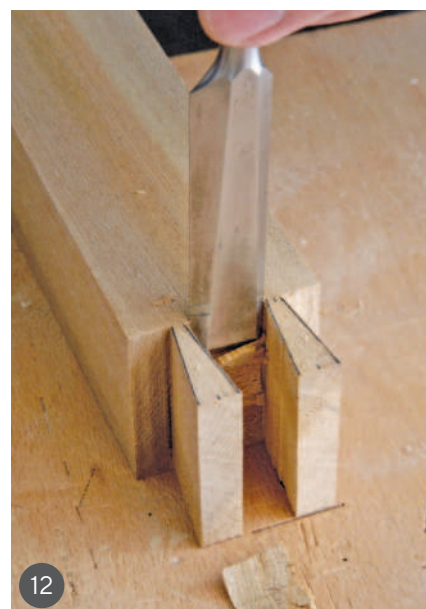
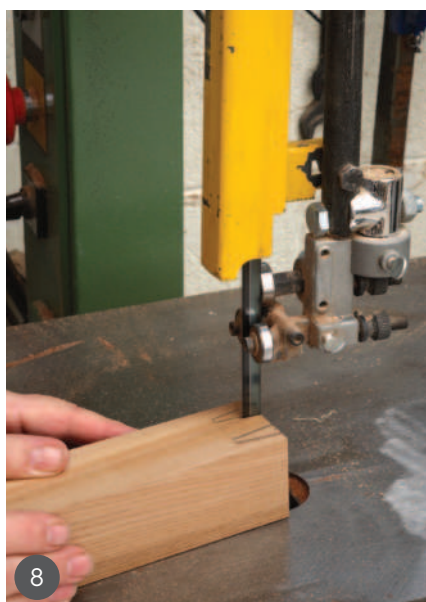
3 As well as each surface being straight and flat, they all need to be accurately square against their neighbours. Use a try-square to check this at each end of the wood. Position a light behind to reveal any glimmer of a gap between the wood and the square.

MARKING THE JOINT

4 Choose which piece of wood is going to carry the tails. Mark the end with a fine pencil, dividing the face in half, then in half again to locate the centres of the twin tails. On either side of each centre, mark out the width of a tail. Use a try-square to mark a shoulder line at the base of the tails.

5 If you use a bevel gauge to mark the sides of the tails as I did, set it to an angle so the width to length forms a ratio of around 1:8. This may sound a shallow angle compared to normal dovetail sides, but you will see later that the final stage of this joint slices obliquely through the tails, widening their appearance. I chose long, slim, tail dimensions to allow for this.

6 Mark the tail sides against the bevel gauge using a fine pencil. There is no need to use knife lines at this stage, because the exact shape and position of the tail sides is not critical.



BANDSAW WORK

7 A bandsaw is ideal for cutting joints like this, although you could use a dovetail saw or a small tenon saw. The sides of the joint must be cut square to the faces, so the bandsaw blade must be precisely at right-angles to the table. If need be, trim the level adjustment on the bandsaw table before making any cuts.

8 Saw the sides of the twin tails to follow the angled pencil lines. Remember that the kerf, or slot made by the sawblade, is wider than the pencil line. This means that the blade should run down the waste side, attempting to leave half the pencil line behind.

9 I also cut the shoulders of the tails on the bandsaw very slowly and carefully. These are probably the most critical part of the joint – any unevenness here will convert straight into gaps in the finished joint, or else stop it closing properly.

BETWEEN THE TAILS

10 I used a coping saw to cut a socket between the twin tails. You could use any small frame saw, a fretsaw or an electric scrollsaw if you have the use of one. Keep the saw cut a couple of millimetres clear of the shoulder line.

11 Use a bevel-edged chisel to chop the socket back towards the line. Choose the widest chisel you can find that fits the space so it practically cuts the full width. Make sure the edge is razor sharp.

12 When I am chopping sockets like this, I like to leave the last half millimetre. Finally, I chop this back in one go or pare it back with hand pressure on the chisel handle for a really clean edge.

MARKING THE SOCKETS

13 Take the wood with the newly cut tails and, supporting the



far end on a piece of scrap, lay the tails on top of the second piece of wood. Ensure that both pieces are precisely in line, ready to mark around the tails. Use a marking knife with a sharp pointed blade to reach into the gap, and mark all around each tail.

14 Back on the bandsaw, the sides of each socket need to be very carefully cut. Use good lighting and position yourself for a clear view of the blade. While the exact shape and size of the tails didn't matter too much, the sockets must exactly match the outline of the tails so there will be no gaps in the finished joint.

15 The bandsaw blade must run along the waste side of the knife line, so that the kerf formed by the blade just butts up against the line. Stop on or just before the shoulder line, so there is no risk of overshooting.

16 Because these sockets are narrow – half the width of the socket between the twin tails – I decided they did not need to be sawn out. A narrow bevel-edged chisel chopped out each socket with a few mallet blows on each side. As before, I left half a millimetre to be carefully pared back to the line.

FITTING THE JOINT

17 The moment of truth comes when you first try to engage the twin tails in the twin sockets. Don't be worried if they will not slide straight in – in fact if they do, they are probably too loose. It is quite common to need to trim a joint for a good, firm fit.

18 Only partially engage the joint for a trial fit – pushing it too far may cause it to break as you try to pull it apart. Once you are satisfied that the joint is going to fit, glue it up and use a clamp or a vice to finally pull it together.



RE-SHAPING THE POST

19 The trick now is to turn this twin dovetail into a puzzle joint. The joined-up post needs to be planed at 45°, removing a large number of shavings from each corner. Keep going until you convert each of the corners into a new face. At the same time, each of the old faces will be reduced in width until it forms a new corner.

20 The job is finished when each new face of the joined-up post is equal in width, and each new corner is straight and even. Instead of showing twin dovetails, the newly angled surfaces now display a single tail on each face. You can challenge anyone to work out how this strong spliced joint fits together!

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TELLING A NEW STORY

SANDY BUCHANAN LEFT BEHIND A HIGH STAKES CAREER IN OIL AND GAS TO CREATE SUSTAINABLE HERITAGE FURNITURE WITH A TALE TO TELL

‘My son is part of the generation that is growing up to inherit a planet that is in a horrible state, and which they had no input into or control over how it got to that point. I knew that at some point he would turn around and ask: Daddy, what were you doing?’ says Sandy Buchanan. ‘Was I going to say I was in oil and gas, and I was pillaging the world for resources in a totally non-sustainable industry?’

These were the thoughts going through Sandy’s mind after a decade working in the City as a geologist in the oil and gas sector. ‘I absolutely loved the science and that someone was paying me very well to do the science, which is what I love doing, but the higher up I got the more corporate politics I was involved in, which I didn’t enjoy at all,’ he says. He was made redundant several times during his career and a final redundancy in 2016 brought matters to a head.

He recalls: ‘I was struggling with what I was doing, we had our first boy that year and I was made redundant for the final time all at the same time. That and a whole lot of mental health issues made me want a more meaningful and sustainable way of working, and a more meaningful contribution to society.’ He took some time off to think things through and take care of his son while his wife went back to work, and at the same time worked on renovating his house.

‘I have always made things,’ Sandy says. He realised that making things helped him cope with depression, and that led him into woodworking. He explains: ‘I knew that timber was the way forward. Timber is about as sustainable as you are going to get if you want to introduce more things into a world that

already has too many things. I felt a great responsibility in setting up a business on my own, not just to look after my boys and family but to look after the world.’

THE WALNUT CONVERSATION

He now sources timber that is not only British grown, but that has fallen for natural reasons – such as trees that have been cut down for development and elms that have been felled to manage Dutch elm disease. Once he has rescued that timber rather than let it go to waste, he tries to use it as responsibly as possible. ‘My timber and furniture have a lot of character and a lot of what people might call imperfections, but they are natural and I try and celebrate them as much as possible, whether that is with inlays to patch holes, knots or a traditional bow tie joint to fix a split,’ says Sandy. He adds: ‘It is the honesty in the use of the materials. I’m trying to celebrate the imperfections rather than hide them. It is about bringing it back to that connection with the natural material.’

Sourcing these woods has become easier over the past three years, and Sandy now has more than 10 suppliers he works with, milling woods locally to their forests, and access to a good selection of British hardwoods. But he admits there are challenges to working with them. ‘If I went down the imported timber commercial route, life would be a lot easier,’ he says. ‘I would have about four timber merchants within 20 minutes of me, all selling straight, clear-grained, probably North American timber. And I wouldn’t have to have the walnut discussion with anyone anymore.’



Customers often ask for walnut specifically, meaning black American walnut. Sandy won't use this as it's imported, but finds that the conversation leads to an honest discussion of why a client wants American walnut, what the alternatives could be and how far the timber has travelled. 'I can get most of my timber from within 50km of my workshop as opposed to over 10,000km if you are importing it from North America or elsewhere,' he says. 'The trees I'm using are not growing for the purpose of monetary gain, they are coming down anyway.' When he gets the message across it can be a great feeling. 'One of my most rewarding clients asked for a cabinet in walnut,' Sandy recalls. 'I ended up doing it in fumed chestnut, and he came back to me for a desk. With the second commission he immediately asked me where the timber was going to come from. He was fully involved in the sustainability side of things. It's a trickier way to do business, but it goes back to my total disillusion with my first career and what that meant from a sustainability point of view.'

One of Sandy's favourite projects was a cabinet made in fumed oak from the Hever estate in Kent. Again the client's original brief had been to match a veneered American walnut dining table, but he offered a sustainable alternative. The piece included a mixture of fumed and ebonised oak, and he used offcuts for patches, so that they are only visible from nearby. An added benefit was that the clients enjoyed cycling around Hever, so the timber's source meant something special to them. 'It adds something extra to that piece,' says Sandy. 'They have got a piece that means a lot more to them than if they had just got walnut to match their table. Now they have got a whole story behind their piece.'

CELEBRATING IMPERFECTIONS

He adds: 'A lot of what I do is bringing the clients along on the journey in terms of the design process, sourcing the timber and telling them all about why it came down. I try to do a weekly update on how each piece is progressing, and that

gives them the opportunity to ask why I'm doing things like using a particular joint or finishing before I put a piece together. It becomes this lovely journey right through to delivery. They know so much about it before it arrives at their house, and then they get to look at it, see all the details and get the overall impression. That is probably one of the most rewarding bits of the job.'

Sandy spends more time on grain selection than he would if he were using commercially grown woods, partly because he doesn't want to waste a limited resource, and partly because in order to celebrate the natural imperfections, he needs to position them in the best place to do that. 'You have got to think about it structurally as well,' he says. 'You want those imperfections to be in an area that is not going to be a critical part of the construction. I grew up in a generation where we got used to superficial veneered laminated timber products that had zero imperfections. It almost got to the point where it could have been anything, not timber at all, it was so devoid of character.'



I am thinking of ways to bring that back into furniture and the home, to make it feel more natural while also making a piece that is also going to last a decent amount of time.'

His advice to fellow woodworkers who want to work with fallen woods is simply to take a little more care. 'It sometimes requires a sharper blade, a little more sanding and a little bit more patience if you are going to build it up,' he says. When finishing Sandy stays as natural as possible, sanding to just 120 grit and using his smoothing plane and tung oil. 'That is about as natural as you can get,' he says. But again, it takes patience. 'Especially at this time of year it can take a long time to dry,' he says.

TRAINING GROUND

Sandy is largely self-taught via YouTube and Instagram, but in 2018 he took a short weekend course in furniture-making at London Metropolitan University. 'That was focused on machine skills – it was just to make sure I wasn't doing anything stupid and that I was up to date on what I should and shouldn't be doing from an HSE point of view. It was a great short course – I couldn't afford the time to do one of the longer intensive courses,' he says.

Since then he has been gradually building his business and slowly dropping the hours he devotes to looking after his boys – his second son was born in 2018 – that is, until the Covid-19 pandemic hit.

'I started out with a three-year plan, then in year two it was Covid so that went out of the window,' he says. He pretty much stopped working for six months to take care of his boys and home-school them. The next year he built his business back up and had a really good year, and this year he is aiming to build on that again, taking on new challenges and his first commercial projects – some jewellery cabinets for galleries and shops made from solid wood. One of the challenges with these projects has been sourcing sustainable glass, FSC-certified plywood and sustainable fabrics for padded sections. 'Over the next few years I would just like to keep developing as a maker and a designer,' Sandy says. 'My goal is to

do something that is meaningful to me, to society and to my boys. If I can keep progressing my skills, the standard of what I'm making and my environmental credentials, then my business will progress and I will get to a place – I'm not sure where it is, but I know it will be good.'

He adds: 'The one thing the last two years has taught me is that you can make all the plans in the world for what you want to do, what sort of turnover you want and what you want to take out, and draw them up in lovely spreadsheets. But the reality is that doesn't matter when it comes to things like Covid. So I am just taking care of the meaningful side of things, which will take care of the business side of things.'

Sandy built his own workshop in his garden in Crystal Palace in London. 'It is mainly filled with a very random collection of used machines that I have spent an inordinate amount of time fiddling to the point that they do what I would like them to do,' he says. 'I know them inside out, so I can fix them when they go wrong and keep them working well. To an extent my shop and the tools I have inform the pieces I make – for example, I don't have a lathe so I haven't gone down the route of turned legs, chair-making or bench-making. I outgrew my workshop as soon as I finished it, but it works very well.' He notes that it suits his 99% bespoke business as it lends itself to being set up to work through one piece at a time.

WILD CARD

When submitting designs to clients, Sandy will always offer them three options: two that are strictly to the brief, and a third wild card. This serves either to open clients' eyes to the possibilities available, or to confirm in their minds that they want what they thought they wanted. The wild card ideas often turn into speculative work, although Sandy has little time spare to work on non-commissioned pieces these days. But he hopes to produce some more of them, as they are good to show to clients for reference, and he would like to display pieces in shows.

The first piece he ever completed was a wooden surfboard when he was 18 or 19,

and then he cut his teeth as a professional building the kitchen for his house. 'I wanted to stay away from anything built in or fitted, mainly because I'm not set up for big pieces and also because I don't like the reliance on MDF. It is a horrible material with no end of life built into it,' he explains. 'I think a lot about sustainability in my pieces. I'm making them to last generations, but I have also got in mind their end of life. They are all felled timber, a natural base, so at the end of their life there is an option to refinish or repurpose the wood, and ultimately they could be burnt as fuel. But no one wants to think about that when they are buying a big expensive piece of furniture!'

One of the most challenging pieces Sandy has made was the Park Desk. 'It looks really simple, but it had to accommodate a whole lot of built-in power leads, docking stations, USBs and so on,' he says. 'It got to the point where I had had to take out so much of the structure that I wasn't really sure that it was going to still be standing in the long run. It required a lot of back engineering, none of which you can see once the top is on. That was more like engineering than woodworking.'

He takes a lot of inspiration from Chinese and Japanese antique furniture his parents collected when he was growing up in Hong Kong and Singapore. He recently created a cabinet inspired by a Ming dynasty piece his parents had at the top of their stairs. He changed it to move the drawers away from the bottom, where they had been placed as part of a floor-based culture, and in a nod to the exotic and rare – or 'horribly endangered', as Sandy puts it – timbers used in the original piece, he chose English elm. 'It is rare because we have lost so many elm trees to Dutch elm disease. Eastbourne Council took it out because of Dutch elm disease – it wasn't because I found a really rare tree and felled it, but it was the same concept of using something a bit rare,' he says. He added riven chestnut for the panelling. 'So you have got a really clean, sharp framework and then panels made of this highly textured, split, wonky riven chestnut,' he explains.

Sustainability is about doing what you can, rather than having the complete answer.

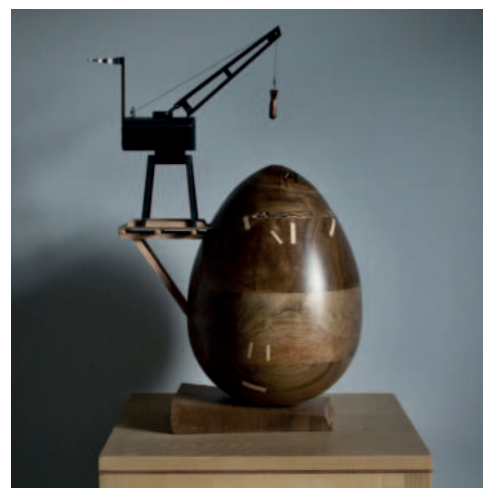
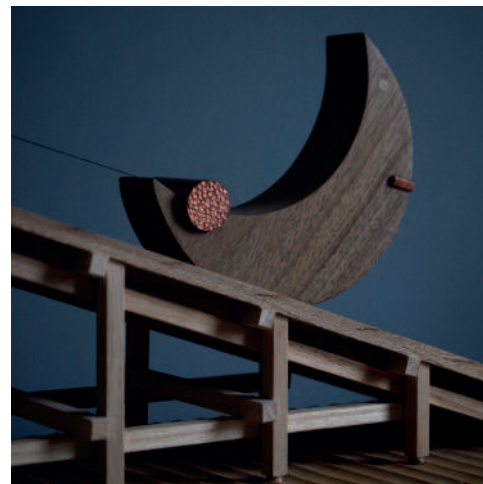
THE SUSTAINABILITY CONUNDRUM

As Sandy grows his business he has to work harder to reconcile sustainability with affordability and longevity. For his jewellery cabinets he has started looking into glass production – but even if glass isn't imported, it is made using a great deal of energy, usually from non-sustainable hydrocarbons. He uses plywood for jigs because it is more accurate and affordable than hardwood timber, and also used plywood for part of the jewellery cabinets. 'I had to compromise and use plywood, but it is FSC-certified, so that is a good starting point at least,' he explains. 'Because I'm using plywood, the piece I create is going to last longer than it would with a solid wood or slatted back panel.'

Sandy says: 'Sustainability is about doing what you can, rather than having the complete answer. One example I often use is about a guy who said to me: "You are all sustainably minded, you obviously drive an electric car." I don't, I drive a 12-year-old petrol car. If I worked in oil and gas I could afford an electric car. But as I'm a furniture maker, I can't afford an electric car so I'm holding on to an old car as long as I possibly can. It is that conundrum we are all in with sustainability: how to play our part in a meaningful way but still within our means.' He adds: 'It's a trade-off. I'm always looking to do what I can.'

So what does he do in his spare time? What spare time? The only time Sandy isn't either working or taking care of his boys is an hour at lunchtime when he walks the dog. 'Between an eight-month-old puppy, a five-year-old, a four-year-old and a business, I have got plenty to do,' he says. But woodworking doesn't really feel like working to him. 'I'm doing something I absolutely love doing,' he says. 'Being able to just pop out to the workshop after the boys have gone down and work on something, sharpen tools or whatever, is just great. At the moment I'm very content spending a large portion of my time working. I just need to keep finding clients to feed my making habit.'

sandbuchanan.co.uk
[@sandbuchanan](https://www.instagram.com/sandbuchanan)



MANTLE CLOCK

MICHAEL T COLLINS MAKES A TRADITIONAL CLOCK CASE IN CHERRY WOOD

Every home I have lived in has had a clock hanging in the kitchen and one in the living room, ticking away. Whether an eight-day carriage clock or a wall hanging Shaker clock, each has had the same familiar and reassuring tick and those unmistakable Westminster chimes ringing in the hours. For this article I will be making a Mission-style mantle clock.

YOU WILL NEED

Tools:

- Rip saw
- Cross-cut saws
- 6mm and 19mm bevelled chisels
- 6mm mortise chisel
- Jack plane
- Block plane
- Combination plane

Optional tools:

- Round moulding planes – 12mm, 19mm and 25mm
- Router plane with 6mm cutter or shop-made router

Wood:

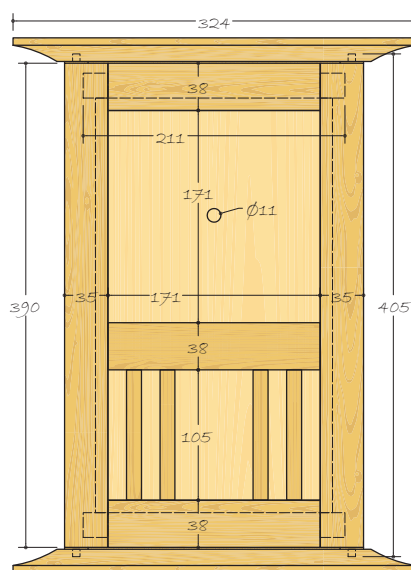
- Straight grained cherry – 25 x 200 x 1200mm

(Prepare the wood as per the cutting list – marking all face and edges)

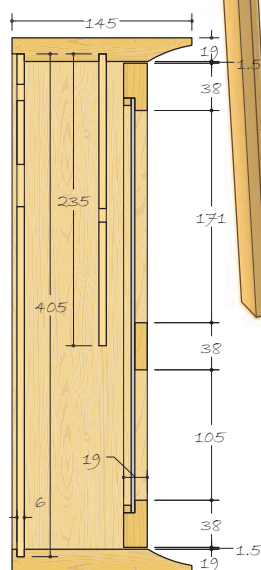


CUTTING LIST

- 2 @ 19 x 145 x 324mm
(top and bottom)
- 2 @ 19 x 90 x 405mm (sides)
- 1 @ 215 x 235 x 6mm (ply face plate)
- 1 @ 220 x 405 x 6mm (ply back soundboard)
- 2 @ 35 x 19 x 390mm (stiles)
- 2 @ 38 x 19 x 211mm
(top and bottom rails)
- 1 @ 38 x 10 x 171mm (centre rail)
- 1 mission clock mechanical kit



FRONT ELEVATION
Scale 1 to 6



SIDE SECTION
Scale 1 to 6

Top and bottom rails tenoned into stiles. Both rails and stiles are rebated for glazing beads

Plywood clock faceplate sits in grooves in sides and top

6mm plywood soundboard with optional hole to hang clock

Glazing beads mitred at corners

Decorative mid rail and muntins sit in front of glass and are butt jointed to door frame

6mm grooves in bottom for plywood back and stopped tenons on sides

PHOTOGRAPHS BY MICHAEL T. COLLINS



MAKING THE TOP AND BOTTOM

1 First rip and cut all parts to size – if you are ripping thick boards it is best to leave them stickered for a few days after ripping, to allow them to dry out. The top and bottom are attached to the sides using a modified tongue and groove.



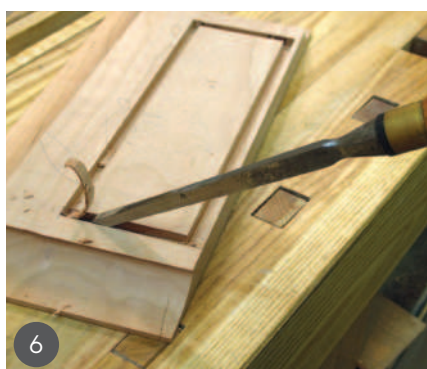
2 Using a marking knife and mortising gauge, lay out the groove so that it is 6 x 6mm and about 60mm long and positioned 48mm from the sides.

CHOPPING THE GROOVES

3 There are two methods that can be employed in chopping out these narrow



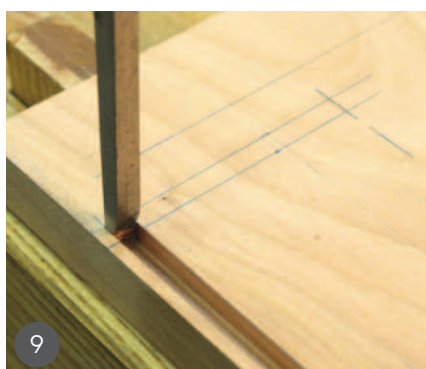
grooves. Because some are stopped grooves, sawing down the walls is out of the question. Treat the long grain grooves as regular mortises and chop accordingly. Go slow when chopping close to the edge in any wood, but especially cherry which is very brittle and easily chipped.



4 For the short grain grooves you need to apply a different technique since chopping mortises the long grain way may result in splitting the wood. Deeply score the boundaries of the stopped grooves.

5 Next, with a 19mm chisel (bevel facing the groove), chop down the score lines. Do this on each side. Then carefully chop parallel to the score lines towards the score lines and remove the waste – repeat until you have reached the correct depth.

6 Now use the 6mm mortise chisel to clean out the waste. Continue this process until you have removed all the waste. This is where the router plane would be a great asset.



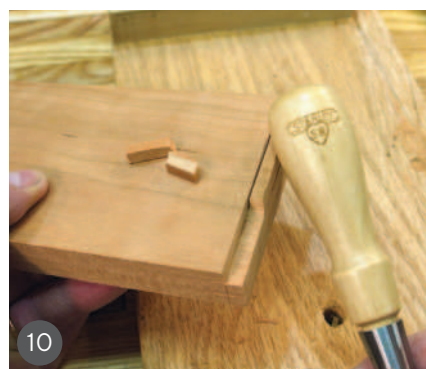
7 If you do not have a router plane the simplest method to flatten the bottoms of the grooves is to make yourself a router/scrapper.

8 Use the 6mm combination blade set in an 'L' shaped scrap of wood. Hold the cutter in place with a nut and bolt.

9 Clean up all the corners, keeping the chisel perpendicular.

CUTTING THE TONGUES/ TENONS

10 The 6 x 6mm tongues/tenons are located in the centre of the top and bottom of the sides. Using a mortise gauge from the face side, mark the



location on the end grain and 6mm on the edge sides. Use a marking knife or cutting gauge to locate the shoulder. Using a chisel cut a 'V' notch, giving the saw a place to run and providing a very clean shoulder. Cut down to the gauge marks and repeat this on all ends. Because the tongues are so small you can get away with just breaking the waste off. If you have less than straight-grained wood then you can place the wood in the vice and use the chisel to chop down the 'cheeks' on the waste side. Clean up the tenon with a chisel from both sides of the tenon – we want the tenon to remain centred. Be sure to test fit the tenon every so often – you want the fit to hold without forcing it



together – too tight and glue will be squeezed out; resulting in a poor joint.

CUTTING THE PROFILE ON THE TOP AND BOTTOM

11 The profile can be either convex or concave – it is much easier to plane a convex profile. To do this you need the planes already have in the tool box. On the face edges, draw a thumbnail profile. Then, starting with the jack plane on the end grain, work from the back to front and remove the bulk of the wood, refining the profile with a block plane. Any tear-out will be removed when the same profile is cut on the front edge. Repeat this process for the top. However, this project is about developing your hand

tool skills, so let's make a concave profile. Draw the profile on the top and the base.

12 Then, remove the waste using the combination plane, creating the shoulder first.

13 Remove more waste with successive passes of the combination plane.

14 Finally, use the round moulding planes to refine the profile.

15 If you do not have a combination plane, remove the bulk of the waste with the jack plane, creating the shoulder with a saw kerf. Then with the 12mm round plane remove more of the waste. Switch

to the next size plane refining the profile as you plane with the next largest plane. Final clean-up can be achieved with increasingly finer sandpaper ending with 600 grit.

CUTTING THE REBATE ON THE SIDES

The sides have a 10 x 10mm rebate running the length – this is cut using the combination plane and a 10mm cutter – mark the edge to be rebated (it's easy to get confused and plane the wrong piece!).

16 I like to gauge the rebate with a marking knife as this will prevent any splintering if the grain is running the wrong way. Using the combination plane, adjust the depth stop to 10mm. Start at the end farthest from you and plane working back towards yourself. This prevents the cutter from removing too much wood and potentially splitting out large chips. At some point you will be going against the grain; in this case the sharper the cutter and the finer the cuts the better.

FACEPLATE GROOVE

The clock's faceplate is housed in grooves on the sides and top. The grooves can be cut with the combination plane as they are open at the top – alternatively, use the method described earlier.

17 Dry fit the case and make any adjustments. The face plate has an 11mm hole centred horizontally and 105mm from bottom.

THE DOOR

18 I like to take all measurements off the case. The door is composed of three rails and two stiles – the upper and lower rails are mortise and tenon construction.



There is nothing to stop you using other joints: through mortise and tenons and even bridle joints could be used. The centre rail is 10mm thick and having no structural strength is simply butt jointed into place.

19 A 10 x 10mm rebate is cut on the inside edge of the upper and lower rails. Cut this after the mortises are made. When the tenons are cut this difference in depth from the front to the back needs to be taken into account.

20 For the upper and lower stile, set the mortise gauge to 6mm putting the mortise in the middle of the 6mm stock.

21 Lay out the mortises using the gauge and a pencil and chop the mortises using a 6mm mortise chisel – because the mortises are so close to the end, support the sides of the stile with wood.

CUTTING THE TENONS

22 Once all the mortises are cut, cut the tenons allowing for the rebate in the rails. The back of the rails is offset by the depth of the rebate.



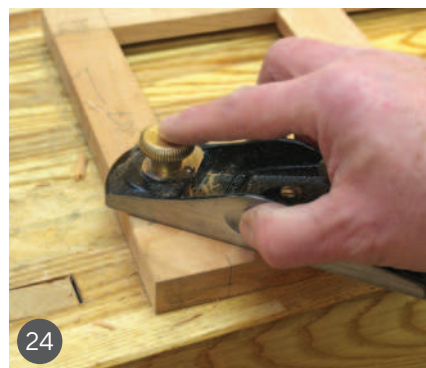
23 Glue and square up the door frame.

24 Clean up all the surfaces with a block plane.

DOOR FITTING

The centre cross member needs to be positioned so that the top 'window' is square. Once the frame is made the hinges can be installed – the hinges are positioned one hinge length from the top and bottom of the door these are no-mortise hinges – the door is held closed with a magnet. The lower half is composed of four pieces of wood butt jointed in place – again these have no structural strength and so butt joints are quite acceptable. The glass is held in place with 6mm square moulding that is mitred and pinned into place.

25 The back panel has two holes: one 13mm to hang the clock (if desired) and a 34mm one to allow the chimes to clearly ring out. Sand the whole clock with 120, 240 and 320 grit and then finish with a couple of coats of natural Danish oil. Lastly, the quartz movement can be installed following the manufacturer's instructions.



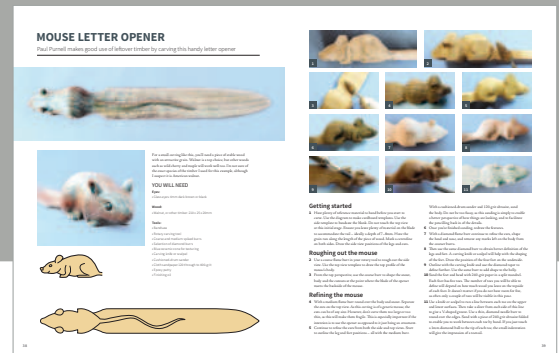
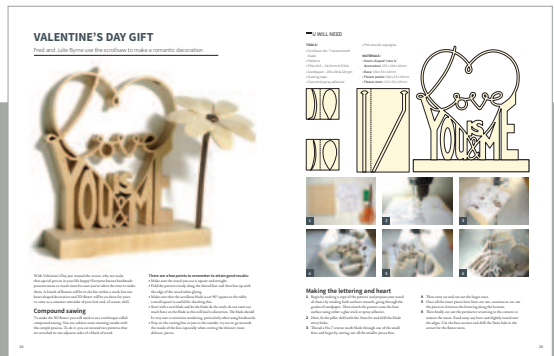
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PHOTOGRAPHS BY MICHAEL PAWLEY PHOTOGRAPHER/WWW.MICHAELPAWLEY.COM

BURLESQUE

RONAN MORRISON OF ROMO FINE FURNITURE DESCRIBES THE INSPIRATION BEHIND HIS NEW LUXURIOUS DRESSING TABLE

The Burlesque dressing table was designed and entirely hand made by Ronan Morrison using materials sourced entirely in the UK. While the four stacked kidney-shaped layers that make up the body of the table are strong and solid looking, the bold curves of the piece are soft and invite you in to explore the vibrant colours and hypnotic grain of the elm burr. Subtle overhangs and handle details reveal the striking, bright interiors, which are made of beautiful rippled sycamore with contrasting hand-cut dovetails and brass hinges.

The mirror on the top of the table is set into a beautiful strong brass frame, which is complemented by slender sycamore legs and their conical brass fixtures that help them blend into the underside of the table.

THE ART DECO INFLUENCE

Ronan took inspiration from the Art Deco greats like Émile-Jacques Ruhlmann and Gio Ponti, but Burlesque is also a celebration of British materials and Irish craftsmanship through what is a bold and sumptuous piece of furniture.

'Just as Art Deco came as a kind of rebellious response to the austerity and depression following World War I, the Burlesque dressing table is a fitting tribute at a time when we are starting to surface from the lockdown and suffering caused by the Covid-19 virus' says Ronan.

'Burlesque was born from my love of the aesthetics of the Art Deco movement but also as a challenge to my skills as a maker. I wanted to challenge myself with curves and layers, with as many

different and complex processes as I could and with materials that are notoriously difficult to work with. I wanted something that will last long after I do and hopefully for people to enjoy long after I am gone.'

ROMO FINE FURNITURE

Ronan is a bespoke furniture maker, based in Somerset. He only uses ethically sourced timber from the UK and Ireland. Items are designed for each individual client's life and values. 'I build furniture to last generations so that my client has somewhere reliable to create and recall memories for years to come,' Ronan says.

romofinefurniture.com



UNDER THE HAMMER – VERNACULAR FURNITURE

BONHAMS' EARLY VERNACULAR FURNITURE & TEXTILES AUCTION FEATURED ITEMS FROM THE COLLECTION OF PHILANTHROPIST AND DESIGNER LADY HAMLYN. WE TAKE A LOOK AT SOME OF THE TOP-SELLING LOTS

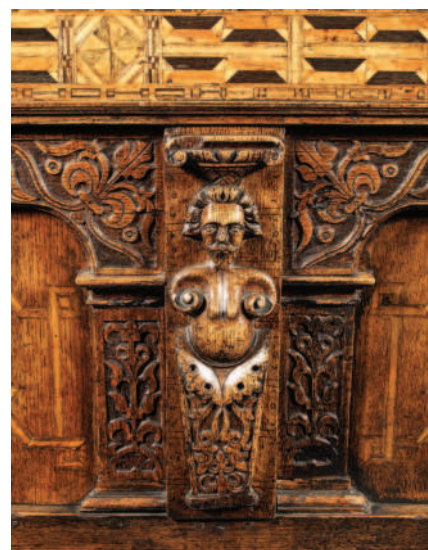
► **LOT 101 • £20,250**

A large 17th-century oak refectory table, formed of a plank top above a simple moulded frieze on six turned and block carved supports, which are united by stretchers. The table is 497cm long and 106cm wide. The massive length of this table recalls the medieval banqueting traditions of England whereby tables of this length were often arranged in pairs around a hearth.



► **LOT 42 • £10,837**

A late Elizabeth I carved oak and fruitwood marquetry coffer. The hinged top sits above a geometric inlaid marquetry frieze and three conformingly geometrically inlaid panels flanked by carved terms on stile supports.



PHOTOGRAPHS COURTESY OF BONHAMS



◄ **LOT 43 • £2,358**

A large 17th-century carved oak coffer with a panelled top, sides and front. The front is carved with a frieze of a radial pattern. The lunette and filled guilloche designs were popular decorative motifs in the 17th-century and were found in many different combinations on oak furniture.



▲ **LOT 85 • £7,012**

A 16th-century oak and fruitwood inlaid refectory table. It has turned bulbous legs which are joined by stretchers, and a geometric inlaid frieze.

► **LOT 52 • £7,012**

An assembled set of 10 Italian walnut and leather upholstered armchairs, dating from the 17th century and later. The chairs have embossed armorials on the backs, leather seats and pierced front stretchers.



▲ **LOT 76 • £1,912**

A 17th-century marriage coffer. It has a hinged arched top applied with studded leather, the centre has the initials HS and MA centred by a vase of flowers. The sides are fitted with bail handles and the interior is partly lined with blue velvet. This marriage coffer would have originally accompanied a bride to her new home, enclosing the items of her dowry. This chest can be identified as Spanish based on its domed lid shape, applied studded decoration and remnants of a leather surface.

▼ **LOT 40 • £1,020**

A 17th-century carved oak panel back stool. It has a solid seat above turned front legs, with a verdure tapestry seat pad.



MINI CABINET

MITCH PEACOCK BUILDS A
FUNCTIONING SCALE MODEL
OF A WHISKY CABINET





PHOTOGRAPHS BY MITCH PEACOCK

Bench.Talk.101 is a social woodworking group that was set up at the start of the Covid-19 pandemic to allow like-minded woodworkers the chance to meet up and talk shop live online, sharing knowledge and experience, and a lot of laughter. In November, this international group of woodworkers, who are still meeting each week on Zoom, decided to get together in person in London and raise some money for charity. Participants who couldn't join in person were also able to take part on a live video stream throughout the whole event. The goal was for everyone to make a dovetailed wall cabinet with raised panel door, using only hand tools.

Not thinking it likely that I would be able to participate in the charity build, due to a neck injury sustained over the summer, I decided to build a scale model of the challenge ahead of time, working at a pace I could manage.

Full working drawings for the challenge were not available in advance, so I worked from a cutting list and an artistic impression of the finished item. As a result, there are a few deviating details, but the mini cabinet makes a lovely baby brother to the full-size cabinet I did eventually build.

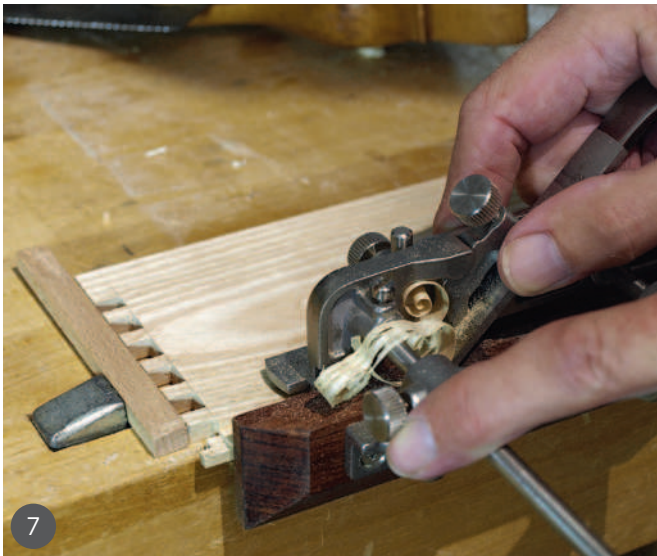
MAKING THE CABINET

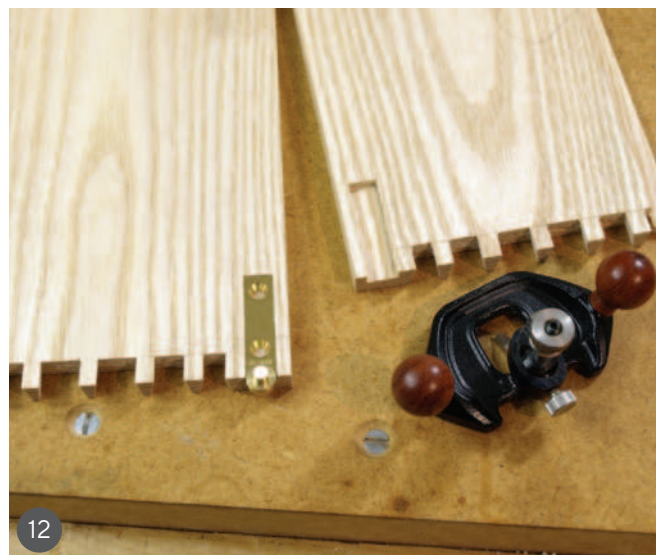
1 One detail I did know about the build was that the material to be used was ash, and indeed it was the small remnants that I had of it which dictated the scale I would build to, although the self-harvested, partially spalted English ash that I had in stock turned out to be quite different to work with than the kiln-dried American ash that was used in the charity build. I have long believed that kiln-dried lumber is best worked with power tools; the joy of sawing, planing and chopping that one experiences with air-dried wood just isn't replicated in the albeit more conveniently available alternative.

2 I selected the straightest grained and least spalted pieces from which to build the carcass and door frame. First resawing, and then planing to thickness, both tools and wood worked in harmony with each other.

3 Shooting the board ends square went equally well, producing curls of wispy end-grain shavings for very little effort.

4 Pretty soon I was sawing the final carcass side to length. It was great to have broken out my little old H. H. Swann and Son backsaw to prepare these small parts.





5 Small laps were planed into the edges of five thin boards. These boards would make up the cabinet back and be dry pinned, allowing for expansion and contraction. The charity build cabinet backs were made from 6mm tongue and groove boards, but at only 2.4mm I think I made the right choice for this cabinet.

6 The carcass was through dovetailed, with graduated tails and allowance to hide a rebate for the back.

7 The rebate was run with a small plough plane, which gave good visibility and easily handled the job.

8 Through and stopped grooves were cut in the door's stiles and rails respectively, for the floating panel that would be framed within them.

9 The door's panel was glued up from two book-matched slices of the most wonderfully spalted pieces of the ash, ripped from a thick board, planed to fit the door groove and jointed.

10 After bridle joints were prepared for the frame, and the door's panel was sized to fit, the parts were pre-finished prior to glue-up. Pre-finishing ensured the whole panel was covered, and avoided the possibility of the finish sticking the panel in the grooves.

11 Flushing the completed door joints removed the finish from the frame's faces, of course, but that would be easy to re-apply.

12 Before gluing the carcass, the knife hinges were mortised for them, and the pilot holes were bored. On such a small cabinet, these operations would be awkward to do after assembly.

13 Drawer box parts were held in a hand screw clamp, set in the bench vice, to bring them to a comfortable height to cut the dovetails.

14 Slips and a bottom completed the basic drawer parts, and the drawer was glued together in one shot, leaving the bottom free to slide in and out.



15 A drawer pull was fashioned in ebony, and fitted to the drawer front with a round tenon.

16 The ebony door pull and latch completed the build, and the whole cabinet was finished with a few coats of shellac.

17 No surprise that this whisky cabinet cannot hold even a half-bottle, so I shall be fitting it out as a jewellery box for my wife.

BENCH.TALK.101

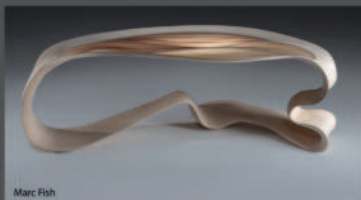
Anyone interested in hearing more about the Bench.Talk.101 group can find them on Instagram, Facebook and YouTube (where previous Zoom meeting talks can be viewed).

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ONE HAPPY MAKER

HANDMADE: BRITAIN'S BEST WOODWORKER FINALIST

RADHA SIVYER LOVES FURNITURE MAKING, CARVING,
TURNING, WOODWORKING AND, WELL, LIFE IN GENERAL

Radha Sivyer greets every question *F&C* asks him with a happy, beaming smile – and why not? His favourite hobby has become his career and even got him featured on a Channel 4 TV show now being shown all over the world.

Radha speaks to us from his workshop, on a family property of a couple of acres of land near Sevenoaks in Kent. The plot houses his grandad's old farmhouse, his own and his uncle's workshops and the mobile home where Radha is currently living. 'It's where my mum grew up, so my workshop is right where she used to be every day,' he says. 'This is what has enabled me to start up a woodworking business: being able not to worry too much about the initial workshop basics and focus on making things.'

Growing up in Wales and later in Watford, Radha was introduced to woodworking by his uncle Ganga Sivyer as a child. 'I have got two brothers, and he would bring us into his workshop and help us make wooden swords to fight with. We'd go outside and fight with them, break them and then go back and make another one. That is where my love of woodworking started,' he recalls. It was the same uncle who gave him his first lathe for Christmas 10 years ago and set him on the journey that has taken him to TV and beyond. He still uses that lathe in his workshop today, and his uncle remains his woodworking mentor.

After school Radha studied product design at the University of Middlesex. 'I would always try and incorporate some kind of making or woodworking into my course, whether my tutors liked it or not,' he laughs. He spent his sandwich year as an intern at bespoke cabinetry firm Kaizen Furniture Makers in Essex, and after he had graduated returned there to work as a junior cabinetmaker. It was while he was there that he was sent an Instagram link to apply to a new TV show which was then called *Good With Wood*, and was later renamed *Britain's Best Woodworker*, which was 'a whole controversy,' according to Radha.

He was one of some 500 amateur woodworkers and new professionals vying for a spot in the TV show. The heats took place during the 2020 Covid-19 lockdown, so meetings and interviews had to be held over Zoom and Radha had to film himself taking timed woodworking challenges. 'It was awesome going through the whole design and making process,' he says. One of the challenges was to make a bird box out of a long piece of ash in two-and-a-half hours, and film himself doing it. 'We were all sweating as it was a heatwave,' he recalls.

ON THE SMALL SCREEN

Radha made it to the final nine contestants who appeared in the show's first season and moved to the set location to be locked down in a Covid bubble for filming. 'It was an intense experience,' he says. 'We all really loved it – the competitors all lived next to each other, and even though it was a competition we would hang out together and give each other tips and tricks. We just weren't allowed to share what we would build next.'

His biggest challenge was working to the show's demanding deadlines. 'I like to work very slowly – I'm a slow maker,' he explains. 'I had to step it up to 200% faster than I would normally go! But I managed to sneak into the final, which was good.'

His favourite round was when he had to make a drinks cabinet, for which he chose tambour doors and tapering legs, with carvings and gold leaf. 'Somehow I managed to get it all done in the time constraint – by that round I had found the balance,' he says. The trickiest piece was a 'chair of the future', for which Radha chose to make a meditation chair. 'Meditation is really picking up, and it's a big part of my life. But one of my challenges is sitting on the ground, which I can't because I have a bad hip. So I designed a meditation chair with a slightly raised seat on rockers and pitched that to Channel 4. They loved the idea but asked how I could spice it up. I decided to cast the whole back in resin. Resin takes 48 hours to cast, and we had 50 hours' working time in total. That would give me two hours to cut it out of its moulding, polish it up and fit it to the chair,' he recalls.

'I went into the challenge and started off doing the resin. I spent about six hours creating the back rest with everything that is involved in resin casting. It was set up in a tent outside, and knowing that the temperature would drop in the night, I put a little heater under the design and covered over the top. About an hour later my cameraman came up to me, saying: "Radha, check this out, it's smoking." By putting a heater under it and covering it over the top I had turned it into an oven and destroyed the back rest. I was six hours into the challenge and I had no back rest, and on top of that they had told us it was a double elimination round. I decided to go back to my original idea and somehow kind of managed to get it to fit together. I fitted the last joint and the time was up – there was no time to test it out.' When judge Helen Welch sat in the chair Radha found he had put the rockers in the wrong place and they needed to be removed – but because he



had worked with traditional joinery and enhanced dovetails he made it through to the next round – ‘by the skin of my teeth’, he says. Generally Radha made the most of the TV show, taking the opportunity to try out skills he might not have been able to do off his own back, thanks to Channel 4 footing the bills for materials.

CONFIDENCE BOOST

After reaching the show’s final, Radha handed in his notice and launched his own business. ‘The TV show gave me the confidence to say: I’m good enough to be able to do this on my own,’ he explains. He is very grateful to Kaizen Furniture for giving him time off to go on the TV show and supporting his decision to leave. ‘I have a lot of love for that company for not holding me back,’ he says.

But when he did launch his business things didn’t go quite as planned: he had been hoping to win clients off the back of the TV show, but its release was delayed so he had to find clients without a budget for advertising. He says: ‘I ended up staying afloat and paying my rent. The things I made on my own, independently, managed to pay my bills – yes, I have done it!’ He started out making things for friends and family, including shrines and ornaments for members of his Hare Krishna community. Instagram posts and stories spread the word, and also helped him to fend off would-be clients looking for odd-job men and asking him if he could put fences up for them.

Radha worked purely on commission for this first year in business, but now in his second year has challenged himself to learn a new complex piece of joinery every week, to make sure he keeps his initial passion for woodworking alive. He started out with simple Japanese joints and will continue on to more ornate ones. He says: ‘I’m holding on to the love of woodworking. People told me, never make your hobby your work – you’ll end up hating it. I can’t hate my favourite thing in the world – I love woodworking!’

Japanese joinery and Japanese aesthetics in general inspire Radha, as well as Indian architecture, but above all he wants to make beloved heirloom pieces that will last and be handed down through generations. That is one of the reasons he has a particular focus on hand tools. ‘As much as possible I try to stick with traditional tooling,’ he explains. ‘I will use power tools in my everyday work because some things need to get done faster, but I typically try to stick with hand tools and traditional joining techniques, just because I’m still very fresh at woodworking and I want to establish the foundations of good woodworking before I start veering into quicker techniques. I avoid certain tools for that reason, because I don’t want to take the fast route every time.

HOLDING ON TO HERITAGE

‘I want to make heirloom quality furniture,’ he adds. ‘There is real value in making something long-lasting rather than churning something out for immediate use. I continue to strive for that, making sure everything I make has that stamp of quality behind it so that it can be passed on.’

Woodworking heritage is also close to Radha’s heart. Some heritage skills are being forgotten, and in his final project for his university course he made a piece combining hand-tooled wood and machine-worked acrylic, in a bid to preserve traditional Japanese joinery for future generations. ‘I wanted to translate these joints on to a CNC router to make sure we hold on to the understanding of how the joints work,’ he explains. ‘I ended up with a cabinet half made by hand with kumiko through tenons and eight different traditional joining techniques, and the other half in acrylic using the same joints translated through to a CNC router.’

His tip for *F&C* readers who would like to try out traditional Japanese joinery is to just go for it. ‘It is so easy to look at something and just feel overwhelmed by a project. The truth is you just have to start chiselling or sawing and make mistakes. If you are too scared to start to make mistakes you will never progress. My Japanese joints are not all perfect by any stretch of the imagination, that is why I invest time in the process,’ he says.

Having taught himself via YouTube rather than taking any formal woodworking training, Radha says his favourite projects are those which challenge him. ‘I recently finished a really fine piece of carving for a client who wanted it for a meditation room. It was an ancient Vedic symbol that incorporated a lot of new techniques, with hand-carving merging with a CNC router – I was really pushing myself,’ he says. He also loves ‘jumping on the lathe’ to incorporate turning into his projects, and is currently working on a Japanese cabinet with full-length kumiko doors with hand-cut joinery.

Looking forward, he doesn’t see himself too far from where he is now. ‘For me the end goal was that I would consider myself successful if I can continue to sustain myself and my family through woodworking. So I’m going to attain it. It is feeling good,’ he says. And what does he do in his spare time? ‘I make more woodworking joints! It sounds crazy, but it’s something I continue to do – to hold on to that passion of woodworking.’

@radhasivyer

Handmade: Britain’s Best Woodworker is available on channel4.com in the UK and is available in other countries under the name *Good With Wood*



PHOTOGRAPH BY PLIMSOLL PRODUCTIONS/CHANNEL 4



PHOTOGRAPHS BY RADHA SIVYER, UNLESS OTHERWISE STATED



FUMING TIMBER

ALAN HOLTHAM EXPLAINS A SIMPLE WAY TO CHANGE WOOD'S COLOUR

Fuming is a very simple technique for darkening timbers that contain tannic acid, using ammonia as the fuming agent. Oak is the usual candidate, but chestnut and walnut can also be darkened successfully using the same technique. Because the process involves a chemical reaction within the timber rather than just a surface coating like a stain, the finished effect is much more even and mimics the appearance of timber that has darkened naturally through ageing.

SAFETY: WORKING WITH AMMONIA

The ammonia needs to be a strong solution if it is to work quickly. Ask at your local pharmacy for '80:80 ammonia', which is actually a 26% solution. Household ammonia will do but the process will be very much slower.

Do take care when handling ammonia. The fumes are extremely unpleasant and irritating, so read the

printed warning sheet and wear suitable safety gear and protective clothing. As an added precaution, I do all my fuming outside in an open carport so there is plenty of air circulation. Never do fuming in a confined space.

THE FUMING TECHNIQUE

1 Fume the finished piece as a whole rather than the raw timber, but do remove any metal fittings or they will cause a black stain in the surrounding timber. You will need to build a temporary fume tent of some sort, and this can be as simple as a framework of softwood offcuts nailed and glued together.

2 Cover the tent in thick black plastic – damp-proofing membrane from a builder's merchant is ideal. The plastic has to be black to exclude any light, otherwise you may get unwanted variations in colour caused by the effect of daylight. Staple the plastic to the

framework and seal any joints with gaffer tape to make it completely airtight.

3 I tested my ammonia solution on a variety of different pieces to gauge the effect and see if the reaction varied between species or material type. The test pieces consisted of a piece of European oak floorboard, a thick piece of solid American oak, a piece of figured quartersawn European oak, a piece of English oak with a band of sapwood and a piece of oak-veneered MDF. Each piece was crosscut to give a comparison piece to check the results against at the end of the process.

4 The workpieces are placed inside the tent along with at least two jars of ammonia to generate plenty of fumes.

5 Always use glass or ceramic jars or dishes, never metal. Seal the tent opening thoroughly with tape and then leave it to fume.



6 The longer you leave it the darker the colour will be. There are no rules here, you will just have to keep checking progress, but with ammonia of this strength 24 hours will give a warm, medium-dark colour. It's important to note that the chemical reaction will continue for some time after the wood is removed from the fumes so it will go on darkening; if the final colour is critical you will have to anticipate the speed of change and take it out in good time.

7 This is the striking effect of 36 hours' fuming on the samples.

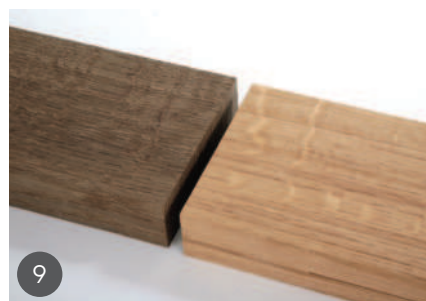
8 The floorboard and European oak have darkened considerably.

9 The quartersawn piece has also darkened, but the figuring is now not so prominent.

10 The piece with sapwood has darkened in the heartwood area, but the sap has remained very pale.

11 Interestingly the very thin veneer on the MDF panel has also changed colour to a richer brown but the grain is still well visible.

12 To check how far the colour penetrated, I planed 3mm off the American oak sample, and this removed the bulk of the colour. Any cracks or splits in the end-grain areas are obviously more porous so the staining is consequently much deeper.



You stand, surrounded by your land, the soil you've turned and ploughed. The earth's been fed and watered, and received sunshine and rain. And yet it doesn't matter how many offerings you've made to the gods of creativity – nothing has grown. Nothing of value has been produced.

If you're a creative person, a furniture maker, artist, musician, writer or in any other way led by a creative force, you might have experienced at least one arid spell in your life, a time when you were unable to produce the work you love. It might have been because of external circumstances or for no apparent reason at all. Whatever the cause of a creative drought, seeing your fertile soil turn to dust is common to many, and both struggling and famous artists have felt despair at the onset of the dry season.

When you're struggling for inspiration, you might dread the inevitable question: 'What are you working on at the moment?' It's an enquiry that ascribes an innate worth to productivity, and it's embarrassing if the answer is 'Nothing'. It seems there's no point being creative if you haven't always got something to show for it.

Yet there's another perspective to be had on the barren spell. Let's start by rising above the land, and getting a bird's-eye view of the acreage below. Perhaps it will be possible to see that rather than cause for despair, your empty fields are in fact a necessary part of the process. In fact, the land that grows nothing represents a time of necessary rest that treats each creative life with the respect and care it deserves.

BENEFITS OF FALLOW TIMES

Fallowing is a traditional agricultural method used by farmers, whereby an area of land is left unsown for a season or more. Nothing is planted on the earth, which enables it to regain

its nutrients and biodiversity, allowing pests and diseases to be dealt with naturally. In the long term, this keeps the land abundant and alive, because it hasn't been over-farmed.

In more recent times, however, the agricultural fallow period has come to be seen as economically unviable, with no income being generated by empty soil. And though many farmers are now finding alternative and sustainable means of land-based revenues, for a long time they were compelled to keep planting crops on the same patch of earth to earn enough to live.

NATURAL PART OF CREATIVE LIFE

But left-alone land is part of the process of growth, not an inconvenience to be waited out, and the fallow period is just as essential to a healthy creative life. Like our planet, we need times of recuperation. Viewing creativity as based entirely on productivity is missing the point. Dormant times might appear frustrating, but they're a vital link in the chain.

The earth needs tending to and caring for. Treating our planet as a one-way production line has proven unsustainable. And treating our creativity the same way will have the same results. As Julia Cameron writes in her book, *The Artist's Way*: 'Listening to the siren song of more, we are deaf to the still small voice waiting in our soul to whisper, "You're enough".'

GETTING PAST SELF-DOUBT

The imposed fallow can feel frustrating. Sometimes, the pressure of the pen or the tools in your hand stalls production before it's started – a process often known as writer's or artist's block. At other times, the more material demands of life get in the way. In either case, if you're unable to make your art, you might start questioning whether you're really destined to be creative at all.

TO EVERYTHING THERE IS A SEASON

PRODUCTIVITY IS OFTEN PRIZED ABOVE ALL ELSE, BUT, AS **STEPHANIE LAM** DISCOVERS, THERE IS VALUE IN BEING CREATIVELY FALLOW

Others have regarded the fallow period as an indulgence, or even an avoidance tactic. In his memoir, *On Writing*, the super-prolific Stephen King wonders, of authors who produced very few books in their lifetimes: 'What did they do the rest of their time? Knit afghans? Organise church bazaars?' He adds: 'If God gives you something you can do, why in God's name wouldn't you do it?' Intentional or not, this view suggests that you ought to dedicate your life, if not your entire soul, to being creatively productive.

However, while creative workaholism might produce short-term rewards, it doesn't always serve in the long run, especially if you're constantly harvesting work that doesn't come from the heart. In fact, if you're doing it with little joy, and you feel a disconnect between yourself and everything you produce, you might come to realise that a forced passion is just another route to impoverished soil. Everyone is different, and it can be useful to remember that those who can dedicate themselves to endless production without any inner backlash – as King seems able to – are the outliers, not the norm.

It might be that you see yourself as the farmer of your land, in control of the crops you yield. However, in reality, you're not the farmer – you're the land itself. Most people both fall into, and require, non-productive times to achieve the rich inner life that, ultimately, gives them the greatest harvests. And if you don't leave your land fallow, it will become fallow regardless, as anyone who's experienced creative burnout will know too well.

AN OPPORTUNITY TO EXPLORE

Whenever it comes, and however long it lasts, it's essential that a fallow period is not only acknowledged, but accepted, and perhaps even embraced. Just as fallow land often becomes repopulated by wildlife, a creatively fallow period can open

you up to sources of inspiration that feed your creativity. And if you're stuck in an unhelpful cycle, then extended time out could give you perspective on your chosen field. Perhaps you'll explore an entirely new path – creativity can take many different forms.

Empty land is also symbolic of a time for reflection. Regardless of what comes out of it, every mind needs a wilderness in which to roam now and then.

EMBRACE THE EMPTINESS

Recognise that it's not always under your control. Forcing yourself to be constantly productive can lead to depletion. You can't regulate how long your land will need to remain dormant, so take the long view. Accept that now is not the time for production and that extended time out needn't spell the end of your career or creativity.

Acknowledge that you're always creating, even if you're not producing. Allow time for reflection. Stimulate yourself by embracing new experiences, whatever they might be – everything has potential to inspire. Also, absorb other people's creative output. Books, films, art, music... They will feed you, even if they're not entirely to your taste.

Stop comparing yourself with others. The way creativity works in each person is different, so don't compare your time out with anyone else's. Your process is for you primarily, so embrace it when it comes. It's part and parcel of the creative life.

Try something totally different. If creating is your job, experiment with a new form in your spare time. Broaden your definition of creativity; think cooking or home decoration, perhaps. Choose an outlet that's all passion and no pressure. Then you can embrace both the sunny periods of growth and the fallow times when they occur.



SPECULATION

GERMÁN PERAIRE ENJOYS THE FREEDOM OF A NON-COMMISSIONED PROJECT AND BUILDS A UNIQUE SLANT-TOP TEA-MAKING STATION

Despite not being commissioned by a paying client, speculative pieces are crucial in the development of professional work: they lend themselves to playful research and are good examples for showing prospective clients the direction you want to take in your designs. In addition, one gets to be an amateur again (the wildest fantasy for many professionals) and you'll get your dream furniture as a perk.

BEGIN WITH FUNCTIONALITY

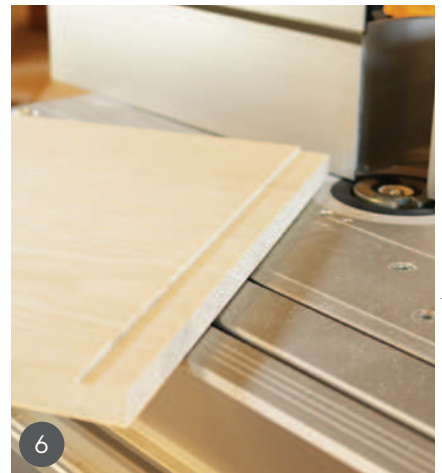
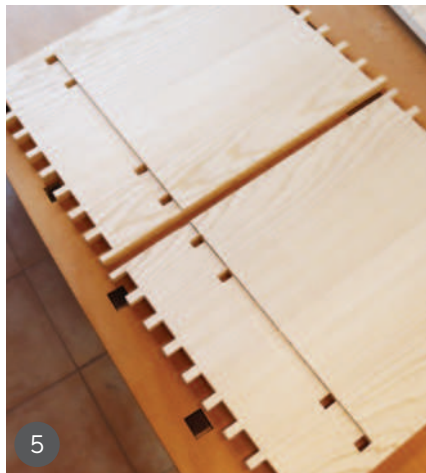
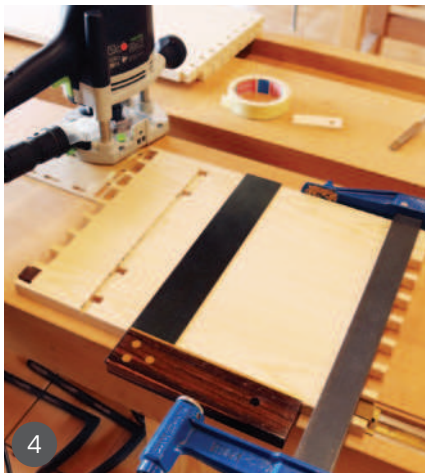
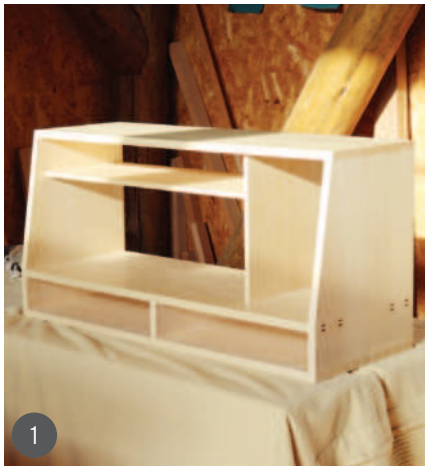
I enjoy gathering herbs in central Catalonia's countryside which I use to prepare infusions for my friends and family, so I thought that this specific function could be a nice starting point for my side project. It would also be an appealing example of how some extra time and care can lift a piece: choosing the right

combination of timbers, a custom frame-and-panel back, thin drawer sides fitted with slips or reclaimed violin keys as pulls are some of the features a discerning client might be happy to pay for.

BUILDING THE CARCASS

At the design stage, I decided that the carcass would be dovetailed at the corners and would have a main shelf joined to either side with four through wedged tenons. This shelf separates the two outer drawers from the compartment behind the slant top. This compartment is fitted with only a vertical partition and a shelf, arranged asymmetrically for a contemporary look. The small internal drawers were added later, with a little carcass of their own screwed to the partitions. The chosen material was an exceptionally clear European white ash.





PHOTOGRAPHS BY GERMÁN PERAIRE

1 The asymmetric arrangement of the shelves in the carcass gives the piece a contemporary look 2 & 3 Making the dovetails was the first part of the process 4 A square and clamp were used to guide the router while making the housing 5 The completed housing and through mortises 6 The shoulder on the rebate creates a seamless inside corner 7 A walnut spacer block was used to mark the mortises and tenons 8 & 9 The walnut wedges are all the same width as the tenons 10 The slopes on the sides were cut on the bandsaw 11 The saw marks were refined on both components at the same time to make sure the slopes were identical 12 The internal components were glued first ... 13 ... followed by the sides ... 14 ... and then the dovetails and drawer partition 15 The components for the drawer carcass were built ... 16 ... and screwed in place in the carcass 17 The back is made from white ash and cypress

The dovetailing process was tackled first, leaving space to cut the side's slanted edges later on. With the dovetails completed, I turned my attention to the main shelf with its housing and through mortises. I prefer to cut the mortises before routing the housing, as it makes for easier marking and chisel work. To guide the router I used a large square secured in place with a clamp. It might not seem very sensible to guide the machine against such a thin square edge, but I never had any issue with that (a thicker roofing square or a shop-made wooden square would be nice alternatives). Please note that this housing is stopped only at the show side and it doesn't need to be more than 3mm deep.

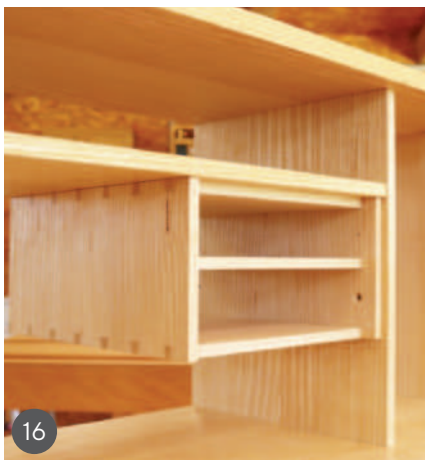
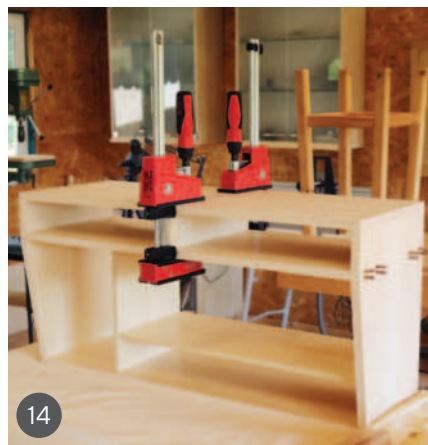
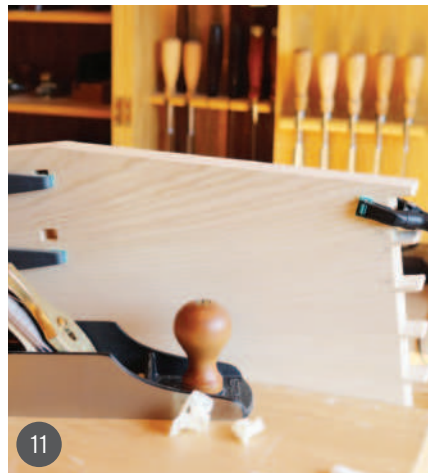
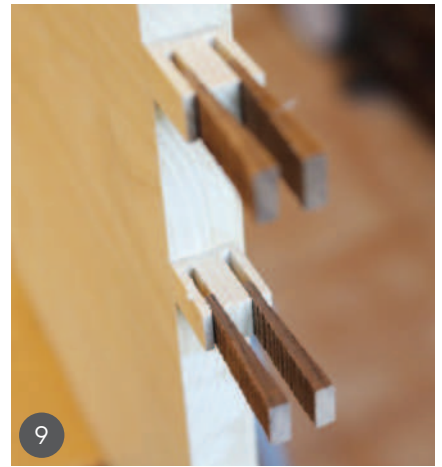
The tenon board was rebated on the show side until it fitted the housing tightly. This rebate creates a shoulder that will disguise any bruises in the joint, making for a seamless inside corner of the cabinet. Both the mortises and the tenons were marked using a spacer block that represents the tenon width.

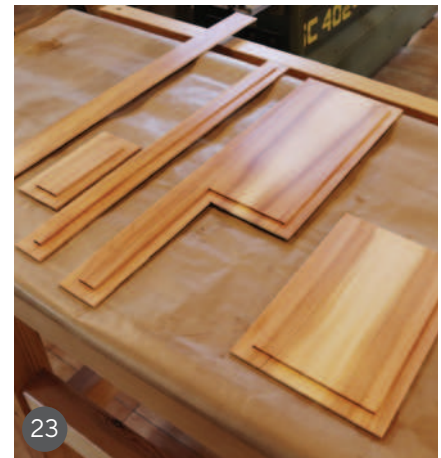
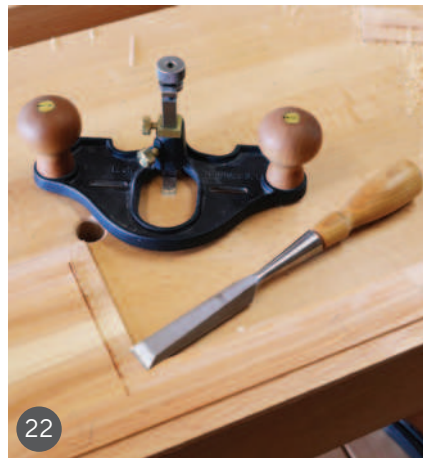
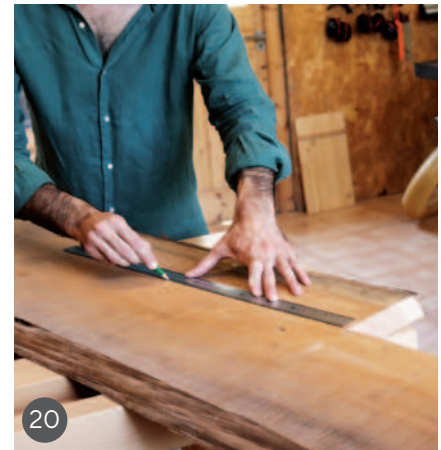
This same block is the stock where the walnut wedges came from later on. This way, all the wedges automatically match the tenon width, which is quite efficient. All the other components were joined with dominoes.

To make the slope in the sides of the carcass I first screwed them together at the waste area, then cut them at the bandsaw and refined the saw marks on both components at the same time. This is an effortless way to achieve an identical slope on either side.

Once all the joinery was completed and the inner surfaces finished with shellac, everything was ready for glue-up. Being a rather complex glue-up, it was done in three different stages: first the internal components, then the sides and finally the dovetails with the drawer partition. In every stage, the whole assembly was put together but the glue was only applied to the relevant joints, to make sure that nothing was glued out of alignment.

The tiny drawer carcass was then built and screwed in place.





18 The back frame was built first, with bridled corners and dominoes as the internal joints 19 Next, the grooves for the panels were routed 20 The cypress planks were selected and book-matched to make the panels 21 & 22 The P-shaped panel had to be cut using a laminate trimmer, chisel and router plane 23 Bees-carnauba wax was applied as the finish 24 The P-shaped panel was glued up in several steps using clamping cauls 25 & 26 The rest of the panel could be glued in just two stages 27 American olive ash was used for the door and drawers 28 The door's bridle joint adds an interesting detail 29 The door was hinged with the knuckles at the outside arris 30 Top-quality cast-brass stays were used on the door 31 The drawer fronts were veneered with 4mm stock 32-34 Small, satisfying design details on the drawers include sloping sides and the moulding on the flush slips

AN ECHOING FRAME-AND-PANEL BACK

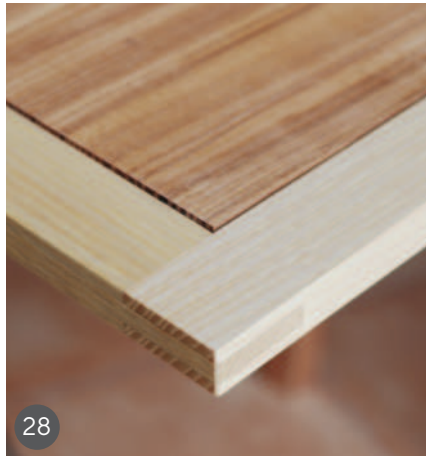
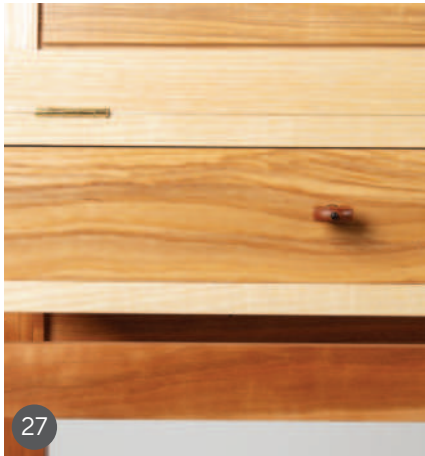
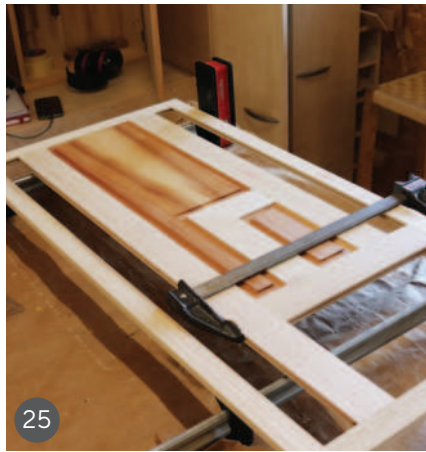
I chose to make the back in a frame-and-panel form, echoing the fittings. This is a time-consuming approach, but it 'fills' the space and enhances its geometry, and more so when using contrasting timbers. The frame was made from European white ash, like the carcass, and the panels were made from some lovely Mediterranean cypress, which has a pleasing fresh scent.

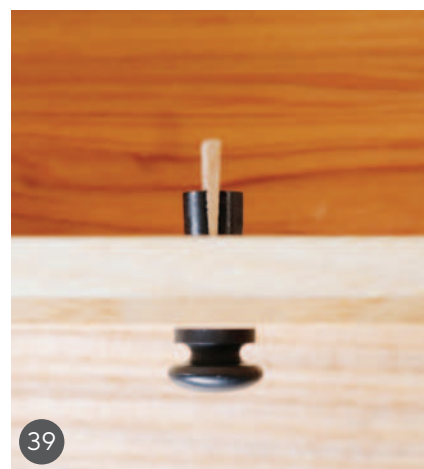
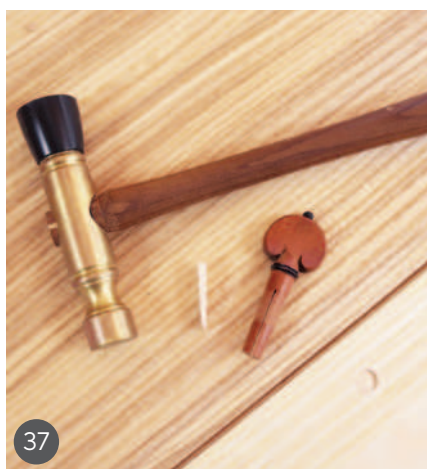
As usual, the first step was building the frame, which is bridled at the corners and 'dominoed' in the internal joints. With the joinery done, I routed the grooves for the panels, making sure they were stopped to avoid interfering with the dominoes. The stock for the panels was carefully selected (a large, knot-free cypress plank is a rare thing and should be used sparingly) and book-matched. The larger panel was a bit of a challenge, as it has an unusual 'P' shape which wouldn't allow me to cut the rebates at the router table. I resorted to my useful laminate trimmer and took the finishing cuts with a

sharp chisel and router plane. A few coats of my bees-carnauba wax were the right finish here, as wax won't interfere with the natural scent of the wood, in the long run.

Gluing the components was also done in steps, beginning with the small central panel. This one has a mitre which was closed by using 45° clamping cauls temporarily held in place with cyanoacrylate. As the pencil line indicates, the clamping pressure was applied right on centre and at a right angle to the joint. The rest of the panel was glued in two stages, paying attention to close all shoulders.

A few tips on frame-and-panel backs: I don't think it is necessary to make the frame more than 10mm thick, and panels this size can well be a mere 6mm. I like to leave the panels slightly below the frame level to flush the joints comfortably after glue-up. If the back is darker than the rest of the cabinet, it will add a feeling of depth and gravity, while the opposite situation will flood the inside with lightness.





- 35 I added my branding to each drawer back 36 The drawer bottoms are made from book-matched cypress
 37 Tapered violin pegs and end buttons were used for the drawer pulls 38 A violin maker's reamer was used to make the hole for the drawer pull
 39 The pulls were secured using a contrasting wedge, which was left visible

DOOR AND DRAWERS IN TWO KINDS OF ASH

As a contrasting timber to the European white ash, I chose American olive ash. This way I made a point of how variable a wood species can be and how every individual log has its own character.

The door was bridle jointed, which can easily be done at the bandsaw with a kerf offset spacer. I like this joint as a detail to be found when opening the cabinet. I hinged the door with the knuckles at the outside arris: this way it can be inset in the carcass and the installation is rather straightforward. On the other hand, it won't stay flush with the inside when fully open, as would be required on a traditional slant-top desk. In turn, valuable china will never roll onto the floor, as it is protected by the step! The cast-brass stays were the best I could find. They are available at Rockler.com.

All the drawers were constructed using through dovetails and the fronts were then veneered with 4mm stock, which was carefully arranged for grain continuity. I am particularly fond of thoroughly made drawers and I love to look for detail in them: how the back is offset by 3mm to let the air escape, the slope on the sides to ease entry or a tiny moulding on flush slips are some

features that I enjoy both as a cabinetmaker and as an observer. In addition to that, I like to brand every drawer on the inside, at the centre of the back component. The bottoms were made from book-matched cypress, the same as the cabinet back, and the grain flows uninterrupted from one drawer bottom to its neighbour, just like the fronts.

I inherited lots of violin pegs and end buttons from my father (he used to fix musical instruments for a living) and I've got a habit of using them as pulls. These are tapered to a very shallow angle and a violin maker's reamer is used to produce an equally tapered hole. I like to leave the pegs poking through the other side, showing the contrasting wedge that secures them in place.

THE CHERRY STAND

I find that cabinets-on-stand usually have lots of visual 'weight' on the cabinet itself, the stand being too light. If there is plenty of weight above the centre of mass, the piece tends to rattle every time a drawer is opened. To compensate for this, both aesthetically and structurally, some of the rails were lowered down to create a distinct area of interest that displays a removable box in matching



40 & 41 A removable box was made from contrasting timbers
42 The box's mortise and tenon joints were wedged or pinned with walnut

timbers. Its light curves create a rhythm that harmonises with the rest of the piece, and all the mortise-and-tenon joints are pinned or wedged in walnut. To arrive at this design I made several drawings and two full-size mock-ups in pine, which I stained to simulate the look of cherry. The box is securely located by four dowels, which also act as feet when it is removed. The carcass is located on the stand by virtue of four dowels as well, and it is detachable for transportation. The dowel holes at the back are elongated to cope with hygroscopic movements.

FINAL THOUGHTS

This piece has presided in my living room for about two years now. All my visitors are delighted to engage with it and I still enjoy its presence. However, summer sunlight has taken its toll and the great contrast between the two kinds of ash has yellowed off quite a bit, making the piece less striking. Since the veneers are quite thick, I will eventually remove the outer layer and apply a UV shield (Pegmacolor Holzschutz). In addition to that, I probably will refinish it with water-based, colourless matt varnish, which is tough protection but it looks like the wood is left bare.





PHOTOGRAPH BY MARK PEACOCK

ANGLED GROOVE JOINT

MARK PEACOCK EXPLAINS THE JOINT DESIGN BEHIND THE
DEER RIVER CRAFTSMAN ZOZ MODERN LOUNGE CHAIR

This joint is an angled groove joint or quarter lap. The method is the same as a half lap, but it is only performed on one piece, where the groove remains at half depth. The joint is glued and reinforced with wood screws and plugged with decorative contrasting plugs, which are glued and flush cut.

The joint has great strength, even without fasteners, and prevents racking or pivoting where the leg pieces intersect. Most joints like this are at right angles, but the strength remains the same, and can be stronger as the angles on each side are different, and act as a wedge when the two sections are slotted together.

The key tip for making this joint is to use a track saw for the relief cuts before refining with a plane or router.

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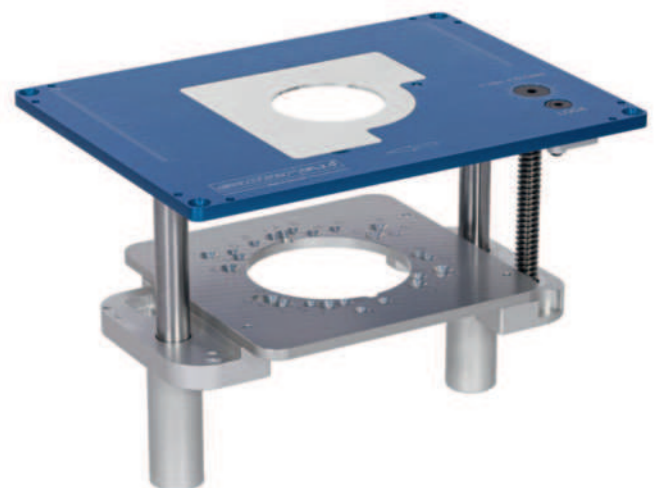
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