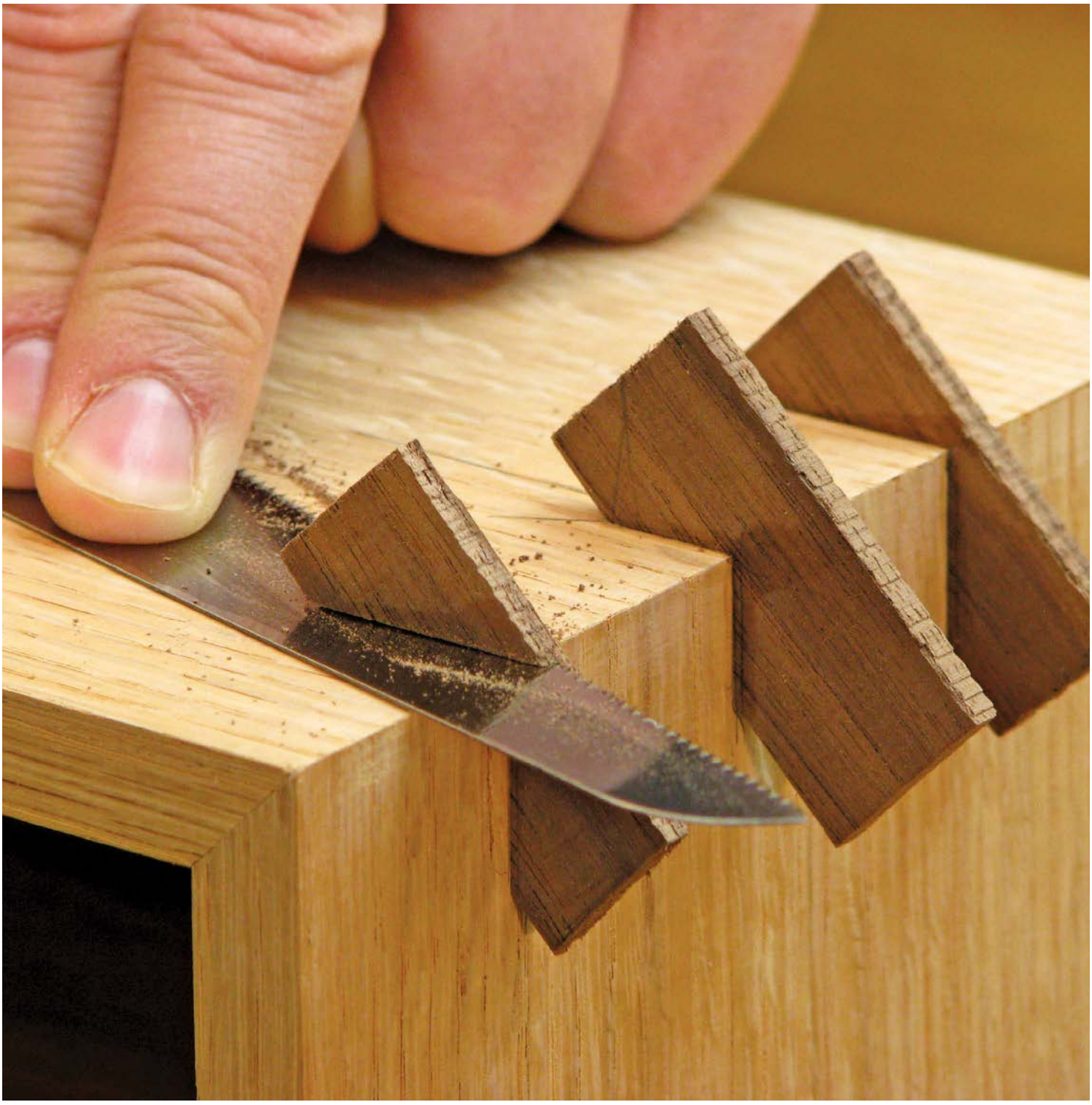
Furniture & cabinetmaking

DESIGN ▪ INSPIRATION ▪ PROJECTS ▪ TECHNIQUES ▪ TESTS ▪ NEWS ▪ EXCELLENCE



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Back in business
Henry Disston's legendary D8 gets the Bad Axe treatment

The collector's guide to...
European decorated planes

Panel Saws

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Planer-thicknessers/Planers/Thickn

A3 41

A3 31

A3 41 A

Saw Spindle Moulder

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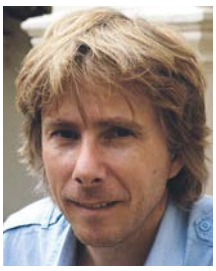


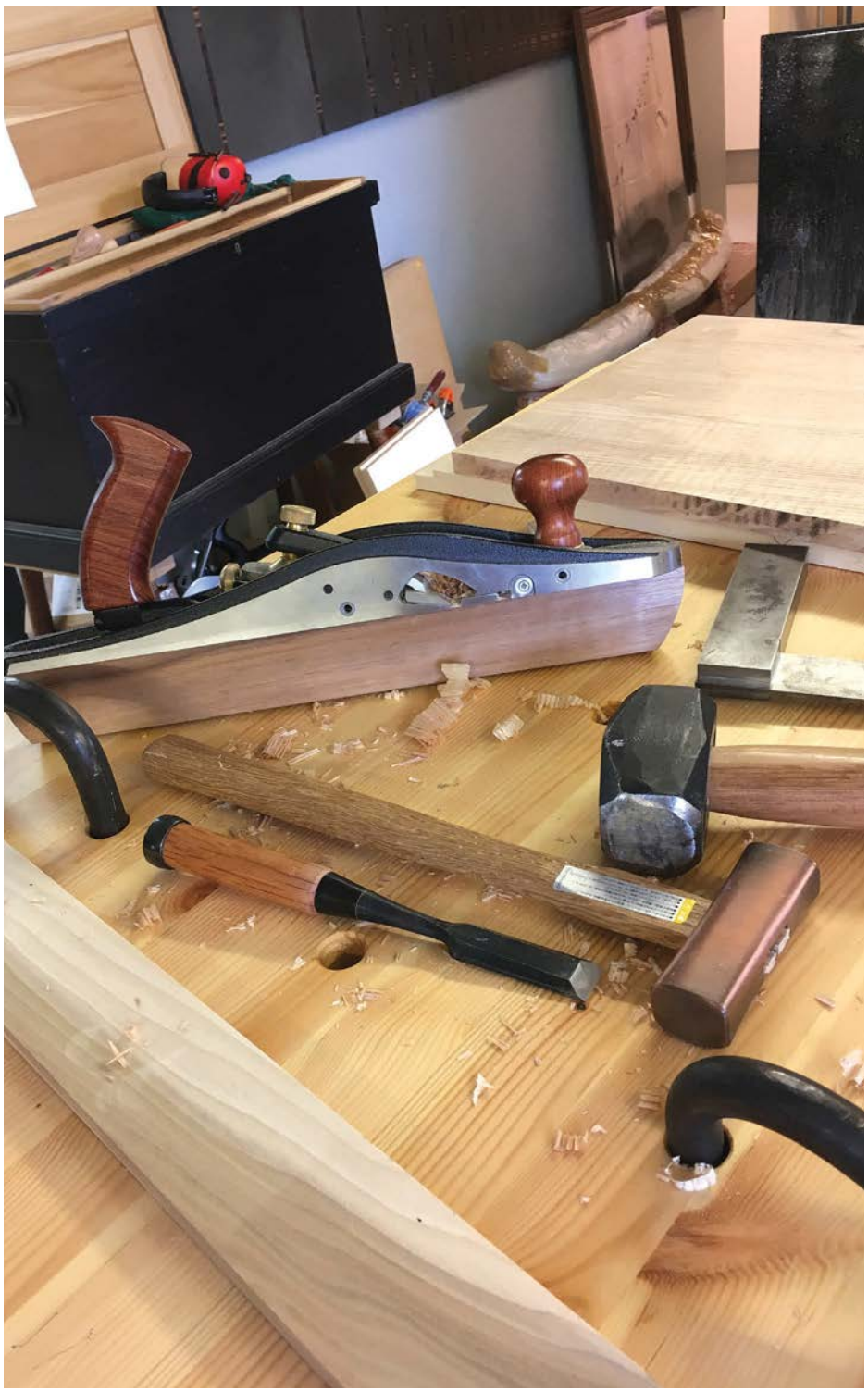
Welcome to...

...diversity

If I were to come out and say I wasn't a huge fan of technology it would give completely the wrong impression. A more accurate statement might read: 'I'm not always that impressed by what technology can do'. But even that's not strictly true either. There was a popular one liner circulating during the 2016 presidential campaign in America that went something like, 'Why do people take an instant dislike to Ted Cruz? Because it saves time'. Though it's probably attributed to a journalist somewhere, it's got all the hallmarks of a razor-sharp satirical stand-up routine. And in light of the seismic shift in the political centre of gravity of late, it's getting increasingly harder to differentiate between the two professions. Such was my reaction towards a new piece of technology a few weeks ago that it was hard to resist the urge to run said item through the bandsaw; a piece of technology, you won't be surprised to hear, I'm perfectly at ease with. I know what you're saying – old dogs, new tricks, but please, please don't try to pretend you haven't been there.

That we're all capable of such a knee-jerk reaction is something worth celebrating, as it is surely part of what binds us together. In this issue there's plenty that will divide opinion. Take the results of the Wood Awards for example on page 22. I guarantee you won't agree with every decision – and neither perhaps will everyone take to Howard Butler's coffee table (page 8) the way I did at Celebration of Craftsmanship & Design back in the summer. But do you know what, most judges couldn't tell their elbows from a hole in the ground if you ask me, unless of course I'm one of them, then in which case everyone else is wrong. Other items likely to excite and irritate in equal measure this month are, in no particular order, the collector's guide to European decorated planes (page 52), our review of the Felder K700s dimension saw (page 38) and a project that probably doesn't feature that often in many to-do lists (page 32). A little too eclectic perhaps? Naah. Just another day in the office for me.

Derek Jones
derekj@thegmcgroup.com



PHOTOGRAPH BY DEREK JONES/GMC PUBLICATIONS

Traditional woodworking technology

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Issue 267 February 2018

Don't forget there are plenty more articles and discussions to be found on the Woodworkers Institute & Forums
www.woodworkersinstitute.com

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.

Design & Inspiration

Your *F&C*

Projects & Techniques


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Meet the contributors

John Adamson

John began his publishing career as a graduate trainee at Cambridge University Press and afterwards worked in the Press's marketing department as European sales representative, then publicity manager and lastly as export sales director. He then served as head of publications and retailing at the National Portrait Gallery in London before setting up a small publishing house in Cambridge under his own name devoted primarily to highly illustrated books in the decorative arts. He is the publisher of David Russell's book *Antique Woodworking Tools*.
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Kieran Binnie

Kieran's passion for woodwork started at the end of law school when he enrolled at the Totnes School of Guitarmaking. His focus has since expanded to include furniture making as well as lutherie. Kieran writes a regular blog at www.overthewireless.com, and is currently researching and writing a book for Lost Art Press about Welsh Stick Chairmaker John Brown.
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Howard Butler

Howard trained for 22 years in the Cotswolds gaining a fully served apprenticeship and working with some of the most highly skilled craftsmen in the area. As a designer-maker, his aim is to push the boundaries to create desirable contemporary bespoke furniture while remaining faithful to his roots in traditional cabinetmaking.
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Philippa Lobb

Philippa graduated from Northumbria University, Newcastle in July 2017 after studying Three-Dimensional Design: Product and Furniture. After exhibiting the Akin Stool II at New Designers 2017, Philippa's work has received positive feedback. Since then she has continued to broaden her knowledge by working in various areas of the design industry.
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Ramon Valdez

Ramon works full-time as a production manager in his brother's cabinet, countertop and fixtures shop in New Mexico. As well as making gallery quality furniture in his spare time, he has taught marquetry classes at his local college. Ramon is the man to go to for the best time-saving tips and ingenious short cuts.
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Hendrik is a fine furniture designer/craftsman who provides private woodworking instruction and DVD courses. His business, Passion for Wood, is located near Toronto, Canada. Using only the highest quality materials, he uses time-tested joinery techniques to ensure that every piece he makes is of heirloom quality.
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If you'd like to propose an idea for an article drop me a line at: derekj@thegmcgroup.com

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PRINTED IN THE UK
Stephens and George Print Group

DISTRIBUTION Seymour Distribution Ltd
Tel: 020 7429 4000

Furniture & Cabinetmaking magazine (ISSN 1365-4292) is published every four weeks by Guild of Master Craftsman Publications Ltd

SUBSCRIPTION RATES (includes p&p)

	UK	Europe	Rest of World
12 issues	£51.00	£63.75	£71.40
24 issues	£102.00	£127.50	£142.80

US subscribers visit www.lightningpublications.com for subscription rates in USD $.

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Current subscribers will automatically receive a renewal notice (excludes direct debit subscribers).

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Dovetail coffee table

Howard Butler uses hand cut dovetails for a traditional joint with contemporary appeal

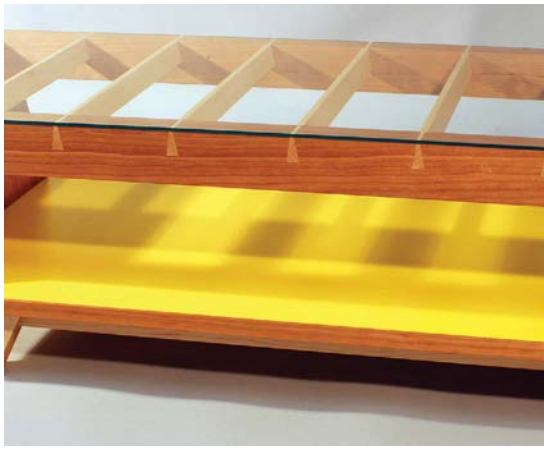
COURTESY OF HOWARD BUTLER – HB FURNITURE

My inspiration for this project came from mid-century furniture, I love the style from this era and the attitude some designers had towards the functionality of pieces. As clever and aesthetically pleasing as these pieces were, they were often mass-produced or made in large batches so often lacked quality in the making. I wanted to capture that style and combine it with traditional cabinetmaking techniques in a design that might appeal to a contemporary audience.

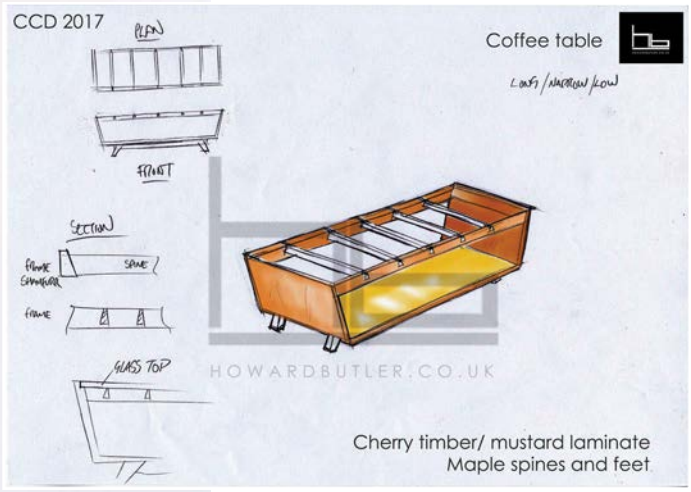
Design

The design stems from my fascination with hand-cut dovetails, which I chose to connect the spines that run across the table to the long sides; these were highlighted by using contrasting timbers: cherry and maple. The spines are not there just for show, they are an integral part of the construction and give some much needed support for the glass. After a few rounds of conceptual drawings I arrived at a design that I felt was ready for laying out in full scale onto an 8x4 sheet of 6mm MDF. I find that drawing each elevation in full scale helps to iron out issues like proportion and should I ever need a template, I have something to refer back to.

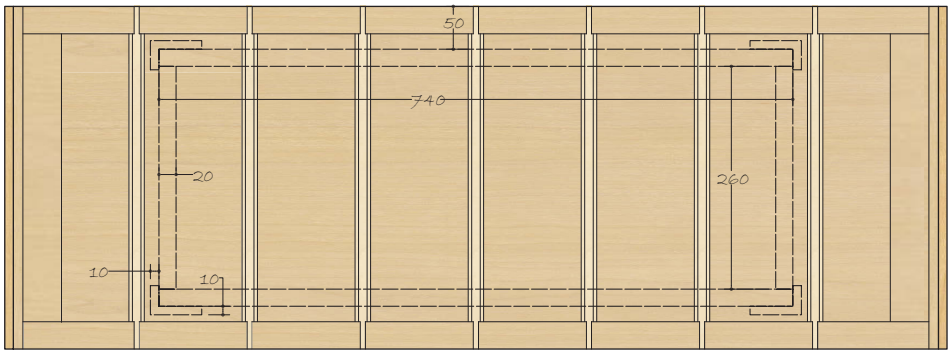
I chose cherry for its initial warm tone, knowing it will mature into a much deeper colour over time and contrast even more with the maple spines. I also knew this combination would draw attention to my hand-cut dovetails. The flash of colour on the bottom complements the cherry as it ages and when viewed from an angle creates strong lines against the inside walls of the ends. The maple feet are also angled, adding another layer of interest.



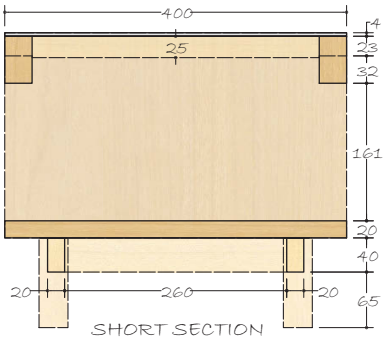
Shadows play an important part of the design



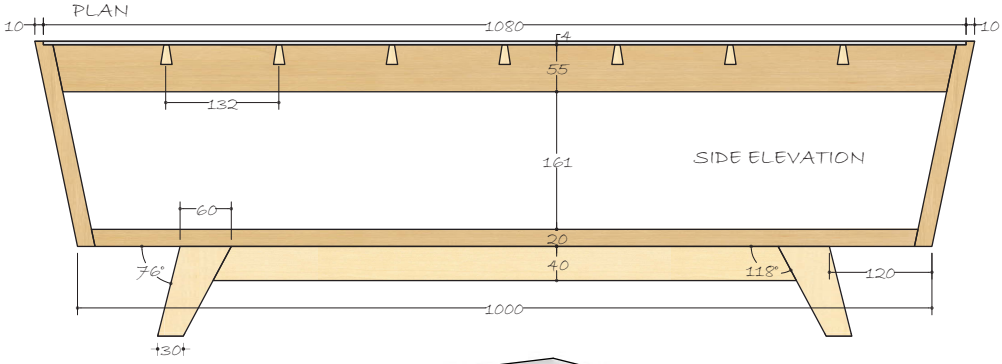
One of many conceptual drawings along the way to producing a full-size template



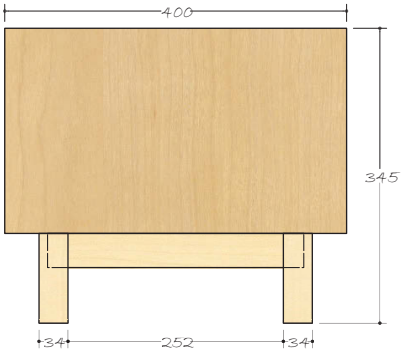
PLAN



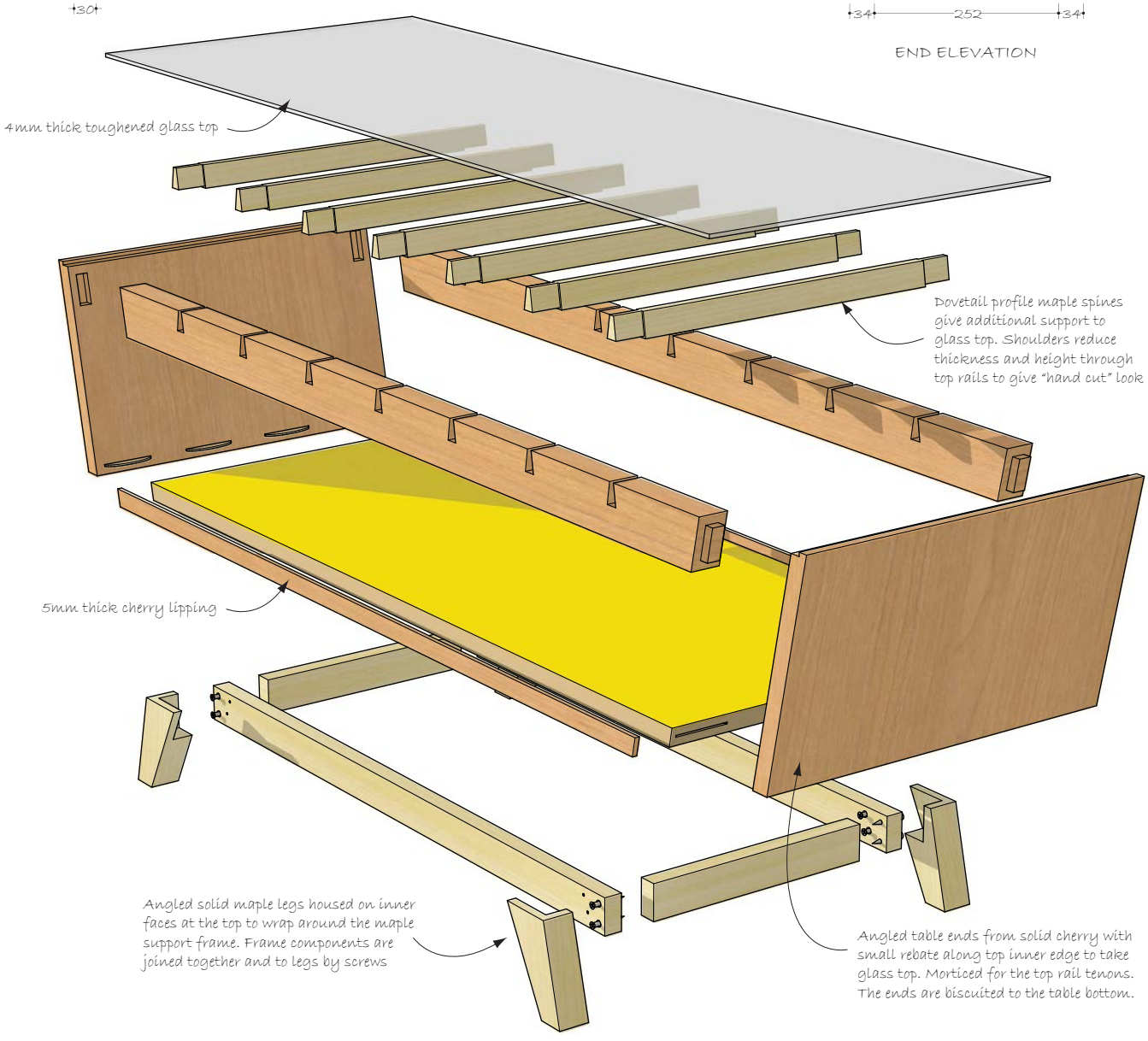
SHORT SECTION



SIDE ELEVATION



END ELEVATION



Dovetail spines

With the only detail on the table being the dovetail spines, getting them spaced evenly was essential. I dry assembled the table and placed the spines on the top rails to be sure that what looked good on my drawing and full size rod also looked right in practice.

It was important to gauge whether items such as magazines or books, when placed on the bottom, would still be visible. Conversely, I also wanted the spines to impact against the yellow background should the owner prefer not to have items on display.

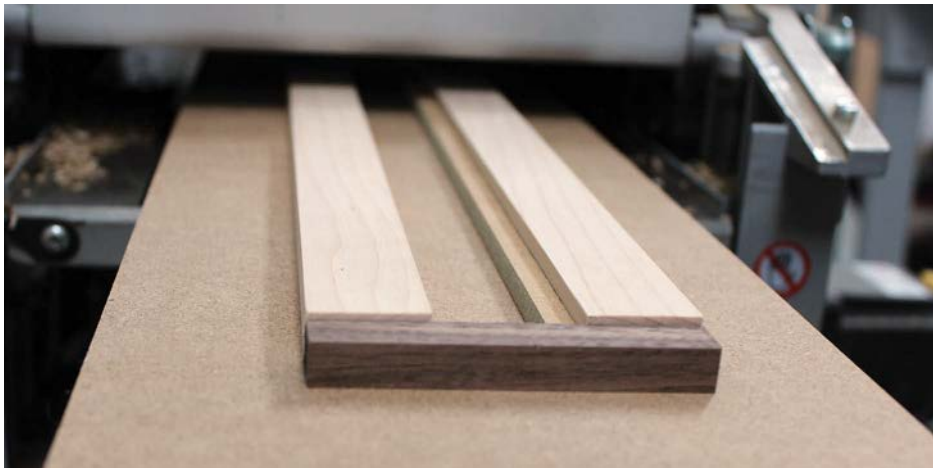
Confirming the spacing is right for the spines

Process

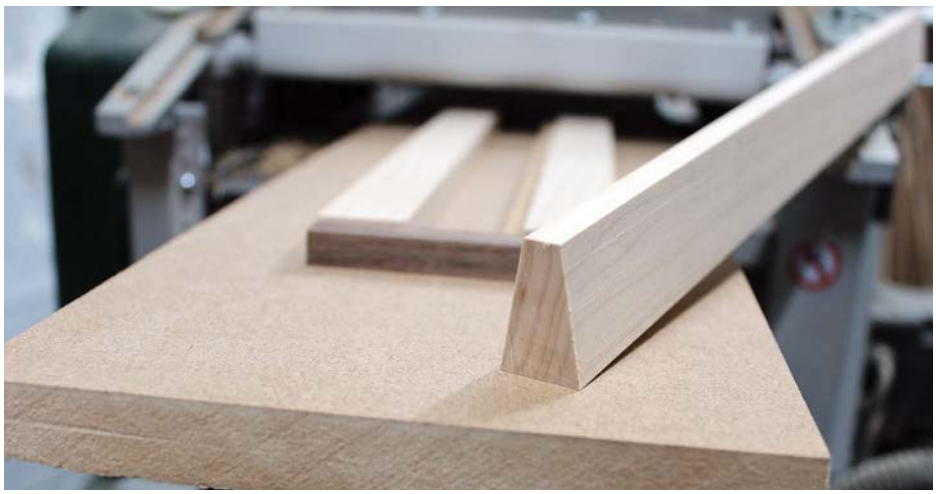
I machined the maple into square sections first then concentrated on making a jig in the form of a sled to run through my thicknesser to convert them into a dovetail shape. I created a cradle for the spines to sit inside, with tight fitting lateral supports down each side and stops at each end. The spines were all cut to the same length.

The components need to fit tight within the frame to prevent them from moving. The benefits are two-fold; to maintain a consistent angle and to leave as few machine marks as possible to remove by hand afterwards. Shims were machined to different heights and placed inside the cradle to raise the spine along one edge as it passes through the machine. One set are required for the first angle and another for the opposite side. It was important to make sure the dovetail was symmetrical.

The last thing to do to the spines was to add a shoulder to the same depth as the top rails of the table. I used a router table for this operation passing the components over the cutter with a 90° cross cut block; the length of shoulder determined by the main fence. The cross cut block does not need to run in a slot if it is cut at 90°. For accurate results make them as long as you can within reason and consider clamping the workpiece to the block. The shoulders on the spines have a dual role in that they add support to the joint and aid assembly, but more importantly they reduce the proportions of the dovetail so they have the appearance of a hand cut dovetail.



The cradle sled with a shim along one side



The finished dovetail shaped spine perfectly symmetrical

Cutting shoulders on the table router

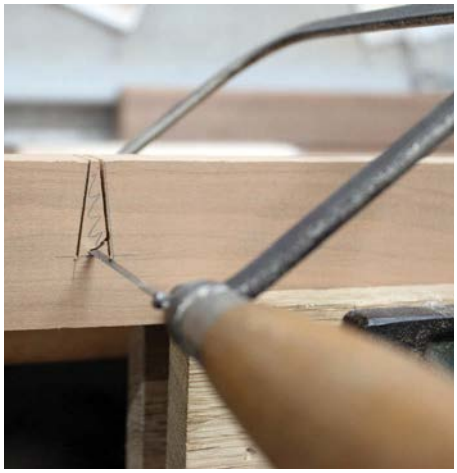
The shoulders are cut on three sides of the dovetail

Hand cut

I placed the spines on end and drew round them with a scalpel before highlighting the lines with a pencil. Now the part I enjoy, I get out my dovetail saw which fits my hand like a glove after 22 years of use, obviously it has been sharpened a few times. After sawing the sides of the tail I then use my coping saw to cut out the waste then give the socket a quick clean up with a sharp chisel. I never attempt a complete assembly of the dovetails before glueing up. The more times you try them the looser they become and you run the risk of rounding over any crisp edges.

The layout lines from the scalpel are defined with a pencil and dovetail marker

Cutting to the line



Removing waste from the socket

Details

The table is supported on a separate base comprised of a frame and legs made from maple. The angle of the legs reflect the sloping sides and ground the piece visibly to the floor without it looking blocky. The last step in the build before finishing was to add my maker's mark; an engraved brass nameplate. F&C

The maker's mark on an engraved brass nameplate

A partial dry fit

News&Events

Contribute to these pages by telling us about matters of interest to furniture makers. Call Derek Jones on 01273 402 843 or email derekj@thegmcgroup.com

Please accompany information with relevant, hi-res images wherever it is possible

Collection commissioned for Mackintosh anniversary

This year marks the 150th anniversary of the birth of Glasgow-born Charles Rennie Mackintosh, one of the most celebrated architects and designers of the late 18th and early 19th centuries. Working in collaboration with designer-maker partners based in Scotland, Edinburgh-based Craft Design House is commissioning a range of new work to reflect and celebrate Mackintosh's distinctive style.

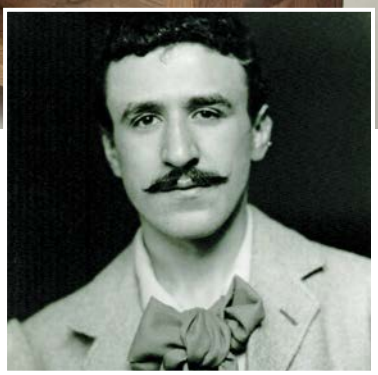
Born in 1868, Mackintosh trained at the Glasgow School of Art, where, along with his wife Margaret MacDonald, his sister Frances, and his brother-in-law Herbert McNair, they formed the core of the Glasgow Style Movement. Their legacy is quite literally built into the fabric of modern-day Glasgow, with buildings, interiors and artworks all testaments to their multi-disciplinary talent and vision.

Gillian Scott, Founder and CEO of Craft Design House, explains: 'This new Collective work will be selected from multiple disciplines; textile, ceramic, glass, furniture and jewellery as well as cross discipline collaborations. This exclusive range will be available in early 2018. To accompany products, digital and content narratives of the design inspiration and process is provided, reconnecting product with process and customer with creator. The Reflecting Mackintosh Collection will be available to museums, heritage and cultural centres to commission for their retail range, not only celebrating Charles Rennie Mackintosh but also the individual flair, talent and innovative thinking of modern designers and crafts people, creating a unique and precious souvenir for visitors to treasure.'

A new app will also accompany the launch of the Mackintosh collection, which will enable people to trail his life and work. The app, entitled Behind the Design, which will be available on both IoS and Android, is a location-based interactive, educational trail app which not only puts the venue on the map but also increases audience engagement and understanding of Mackintosh's work and influence.

PHOTOGRAPH COURTESY OF CRAFT DESIGN HOUSE

Craft Design House's new collection is inspired by Mackintosh's distinctive style



PHOTOGRAPH COURTESY OF WIKICOMMONS

Charles Rennie Mackintosh was born 150 years ago

Contact: Craft Design House
Web: www.craftdesignhouse.com

Tool news

ACM UK launches high-quality European bandsaw

ACM UK was set up four years ago by directors Phil Meyers, ex Sales Director of Record Power, and Lee Tamsett, the ex Works Manager of Startrite manufacture. They have concentrated the business on heavy duty and specialised bandsaws, but they have always known there was a niche market for a quality bandsaw in the semi-professional market.

As the dollar to pound exchange rate has come down and Chinese prices have gone up, they are now able to offer a high-quality genuine Italian built bandsaw to the UK market. For more information, see ACM's website.

Contact: ACM
Website: acm-uk.com

ACM supply high-quality bandsaws to the UK market

English oak wins UK Tree of the Year

The Gilwell Oak in Epping Forest has been named the UK's Tree of the Year and will now go on to represent the country at the European Tree of the Year competition.

Nominated by Caroline Pantling, Heritage Service Manager for the Scout Association, the Gilwell Oak sits at the heart of Gilwell Park in Epping, the home of the movement conceived by Robert Baden-Powell. He adopted the towering oak as a neat analogy in 1929 for not only the growth of the scouting movement worldwide, but also as a message to young Scouts that big things are possible from modest beginnings. The oak is also reputed to have provided shelter to the highwayman Dick Turpin as he waited to ambush stagecoaches passing through the forest. The tree will now benefit from a £1000 care award.

The Erskine House Tree in Belfast was named Northern Ireland's Tree of the Year; The Big Tree in Kirkwall, Orkney won for Scotland; and The Hollow Tree in Neath Port Talbot was Wales' Tree of the Year.

Contact: Woodland Trust
Web: www.woodlandtrust.org.uk

PHOTOGRAPH COURTESY OF THE WOODLAND TRUST

The Gilwell Oak is the UK's Tree of the Year

Events

Information correct at time of publication, check websites before planning your visit

EVENT OF THE MONTH

FFX Tool Show

The FFX Tool Show brings together all the biggest manufacturers to give you the best hands-on tool show for the professional and DIYer. Building on the success of previous events, there will be live tool demonstrations from industry experts, new product releases and the chance to compete in exclusive competitions from powerhouse brands.

When: 23–25 February
Where: Kent Event Centre, Detling, Maidstone ME14 3JF
Web: www.ffx.co.uk/tools/toolshow

PHOTOGRAPHS COURTESY OF FFX

Right: The biggest tool brands will be on show at the FFX Tool Show

Spring Fair

Spring Fair is the UK's No.1 trade show for gift and home products. It includes 14 trade sectors and showcases the best products, launches and inspiration that over 2500 UK and international exhibitors have to offer.

When: 4–8 February
Where: NEC, Halls, Marston Green, Birmingham B40 1NT
Web: www.springfair.com

Stockholm Furniture & Light Fair

New products, new materials, new knowledge, new trends and new environmental and technological solutions are all displayed at the Stockholm Furniture & Light Fair. Italian architect and designer Paola Navone is the Fair's Guest of Honour and has been commissioned to create an installation for the event. The Fair takes place during Stockholm Design Week, which includes over 100 design events at various venues around the city.

When: 6–10 February
Where: S-125 80 Stockholm Massvagen, Stockholm, Sweden
Web: www.stockholmfurniturelightfair.se

Ambiente

Ambiente offers a comprehensive overview of consumer goods in the categories of Dining, Giving and Living.

When: 9–13 February
Where: Messe Frankfurt, Frankfurt am Main, Germany
Web: ambiente.messefrankfurt.com

The London Fabric Show

Hosted by British Furniture Manufacturers, the London Fabric Show is designed for trade visitors wishing to choose fine and luxury fabrics from some of the most exclusive fabric producers and suppliers in Europe. Over 35 high-end companies from Belgium, Turkey, Italy, Spain, Portugal and the UK will show their new designs and collections in plains and patterns. Visitors will be able to choose from a wide selection of fabrics including jacquards, wools, tweeds, silks, velvets, cottons, linens and chenilles, together with the most up to date backing fabrics and FR coatings.

When: 26–27 February
Where: Chelsea Football Club, Stamford Bridge, Fulham Road, London SW6 1HS
Web: www.londonfabricshow.uk

London Design Week

This six-day event features an incredible line-up of 120 exhibitors and more than 100 immersive experiences, plus imaginative pop-ups, bespoke installations and tempting food and drink. This year, there is a wealth of opportunities to get the inside track from key influencers, established makers, luxury brands and emerging talent that captures a new spirit of individuality and creativity.

When: 4–9 March
Where: Design Centre, Chelsea Harbour, Lots Road, London SW10 0XE
Web: dcch.co.uk

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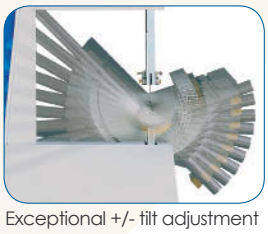
Basa 7.0

Basa 5.0

Basa 4.0



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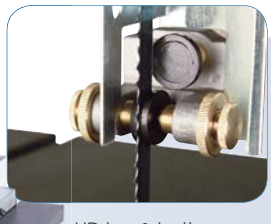

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Basa 4.0	375mm / 250mm	-22.5° to +45°	2.04 / 2.04	£1,162.50	£1,395.00
Basa 5.0	457mm / 305mm	-20° to +47°	3.8 / 4.9	£1,895.00	£2,274.00
Basa 7.0	600mm / 400mm	-15° to +47°	3.8 / 5.2	£2,795.00	£3,354.00

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Social media dashboard

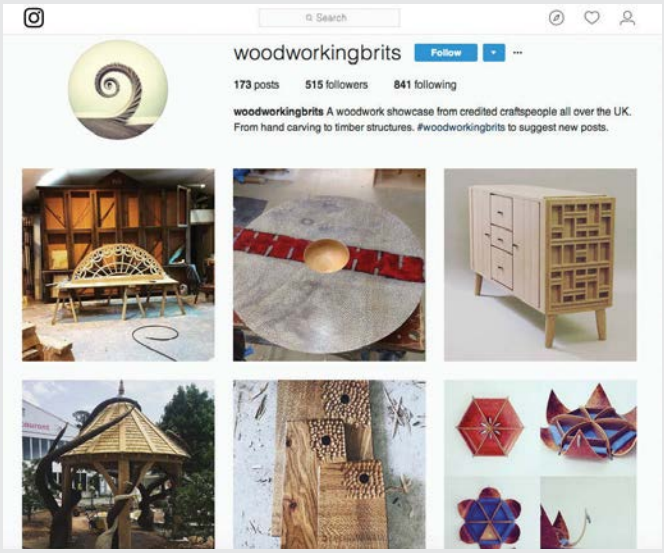
Bringing you a round-up of the best from the online world plus a selection of the latest projects from our readers

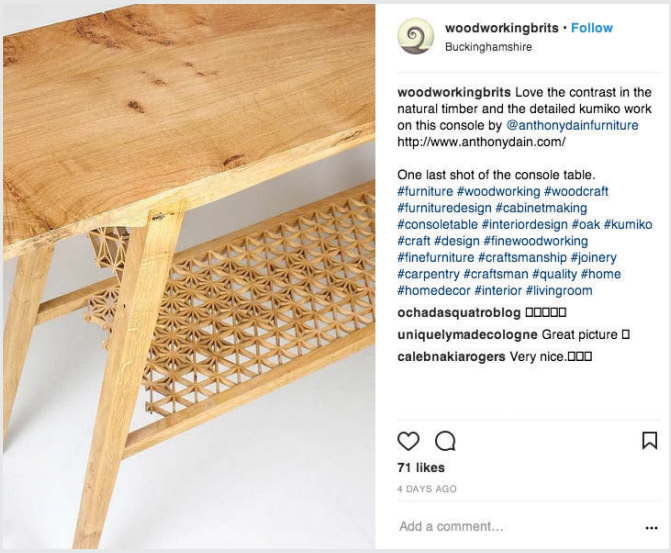
In this section of the magazine we bring together the best furniture and woodworking related content from social media. Here we'll recommend who to follow, where to comment and which online communities to join. We also feature projects we love, readers' letters, comments from the Woodworkers Institute forum and pictures of readers' work. If you'd like to see your furniture on these pages, email derekj@thegmcgroup.com

Instagram: Woodworking Brits

This Instagram account showcases all kinds of woodwork from craftspeople across the UK. You'll find stunning examples of turned bowls, furniture, buildings, boats and much more. You can also get involved and suggest items to include by using the hashtag #woodworkingbrits.

Address: woodworkingbrits

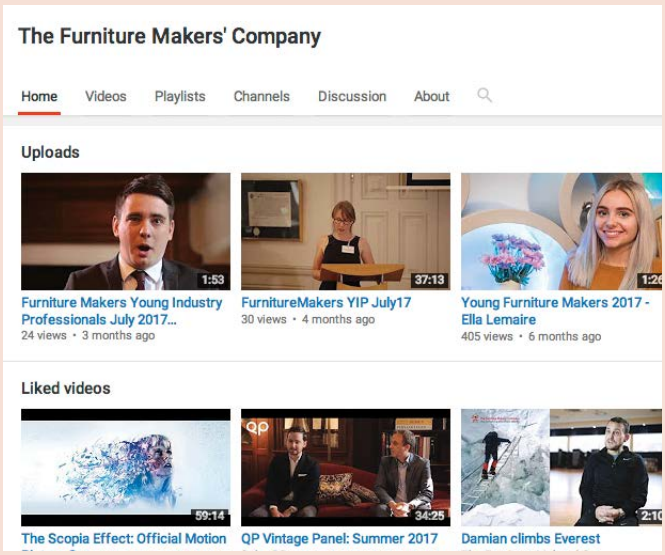




YouTube: The Furniture Makers' Company

Keep up to date with The Furniture Makers' Company's fundraising campaigns, news and events via their YouTube channel. Here you'll find videos from events such as the Young Furniture Makers Exhibition and clips from talks on topics affecting the furniture industry.

Address: www.youtube.com/channel/UCcZXA8T0QA25dJ5brUatoRA



Twitter: English Woodlands

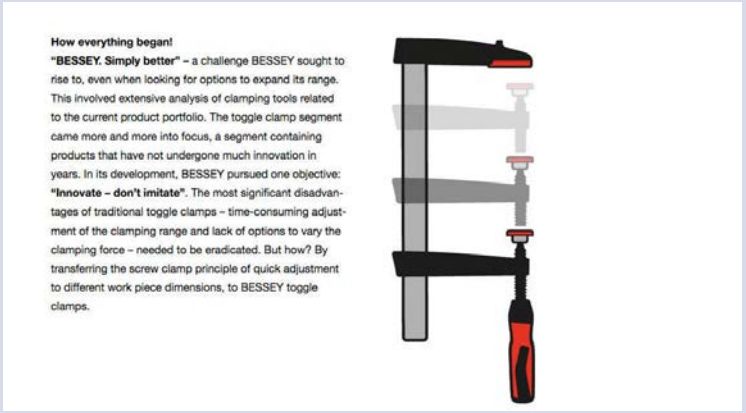
Based in West Sussex, English Woodlands are 'log buyers, log sawyers, woodworkers, wood thinkers, wood lovers, wood suppliers', and you can find out about all those things on their Twitter feed. There are plenty of timber photos to get you inspired, as well as updates on the latest forestry and crafts news.
Address: cockingsawmills

Website: BESSEY microsite

German clamping tool specialist BESSEY is providing an extensive range of information on self-adjusting toggle clamps on its new microsite, available in 12 languages. Designers, craftsmen and buyers can find technical details and facts about the unique range of accessories as well as excerpts from the history of the range.

BESSEY has launched the microsite to mark the 5th anniversary of its STC self-adjusting toggle clamp range. The microsite informs visitors about the benefits of these special-purpose toggle clamps, which can adapt automatically and in a continuously self-adjusting manner to workpieces of varying thicknesses. What's more, the microsite provides detailed descriptions of the horizontal, push/pull and vertical toggle clamps, which are equipped with self-adjusting mechanisms, covering all relevant information. These include, for example, images of the toggle clamps in practical use, brief descriptions with references to the base plate versions as well as technical data sheets and downloadable 3D CAD data. The variants that feature a horizontal base plate also include links that take the user straight to matching accessories.

In addition to the extensive product information and the history of self-adjusting toggle clamps, the microsite also includes additional links to a distributor search and the full range of BESSEY products.
Address: toggleclamp.bessey.de



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Wood Awards winners 2017

This month's gallery features the winning entries from the annual Wood Awards

The Wood Awards is the UK's premier competition for excellence in architecture and product design in the world's only naturally sustainable material. The Awards recognise, encourage and promote outstanding design, craftsmanship and installation using wood. The 2017 ceremony took place on 21 November at Carpenters' Hall in London and was hosted by Johanna Agerman Ross, Founder of *Disegno* magazine and Curator of Twentieth Century and Contemporary Furniture and Product Design at the V&A. The Awards are free to enter. For more information, visit: **woodawards.com**

PRIVATE: Hampshire Passivhaus by Ruth Butler Architects. Spruce CLT panels form the entire super structure, walls, floors and roof of this L-shaped dwelling. The spruce panels give a tactile and harmonious quality to the living spaces and bedrooms. Externally, the house is clad in Siberian larch rainscreen cladding, chosen for its straight grain, uniform texture and durability. The judges were impressed by the design, craftsmanship and attention to detail.

PRODUCTION MADE: Narin Chair. Designed by David Irwin, manufactured by Case Furniture. The Narin doesn't compromise on aesthetics or comfort despite the folding design. Its smooth, sweeping transition is accentuated through the solid timber turned legs into the formed backrest. The comfortable backrest acts as the pivot from where the back legs rotate. The seat and back are made of a high-grade birch ply with oak or walnut veneer while the rest of the chair is solid wood. The judges praised its elegant, distinctive, logical and comfortable design.

STUDENT DESIGNER: Rustic Stool 1.0. Designed and made by Mark Laban from Central Saint Martins. Rustic Stool 1.0 was developed through a process-driven approach to design engaging directly with the manufacturing technique itself: a 3-axis CNC router. Through manipulating the machine's software, unexpected and unconventional surfaces are created. American maple was used for its fine grain and delicate colouring and tonality. The judges commended this interesting typology that creates a new aesthetic.

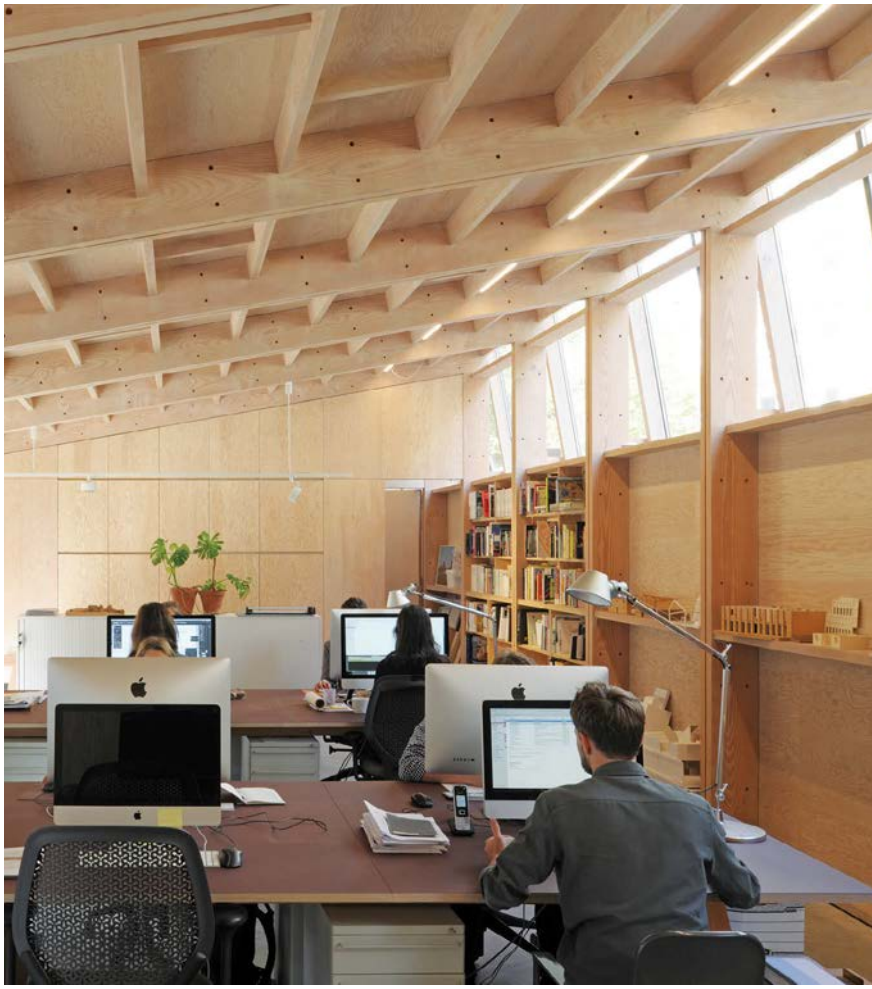
PEOPLE'S CHOICE: Hex Drinks Cabinet. Designed and made by Damian Robinson of Williams and Cleal Furniture School. The cabinet was inspired by a bees' nest found in Damian's garden. Woods used include British bog oak, fumed oak, English cherry, black walnut, tropical olive, teak and olive ash. The People's Choice award was voted for by visitors to the London Design Fair.

BESPOKE: Time and Texture Installation, designed and made by Eleanor Lakelin. These works form part of 'A Landscape of Objects', a site-specific exhibition set in the gardens of Forde Abbey, curated by Flow Gallery for Somerset Art Works. The installation is formed of three hollowed vessels on rusted plinths and four solid forms designed to show how natural elements erode and work away at materials. The judges were impressed by the control and expression of the material.

ARNOLD LAVER GOLD AWARD & INTERIORS: Coastal House, Devon, by 6a architects. The judges were seduced by this entry while visiting at the shortlisted builds. The interior of this house uses timber in several different ways to create a wonderful home that feels natural and unaffected. Originally raised on a plinth above a basement, the ground-floor has been lowered to the level of the ground. This has increased the size of the rooms and created tall, elongated openings to the outside. A series of oak beams make up the exposed primary structure. The internal spaces have been completely reconfigured. Three floors on the north end of the house connect to two floors on the south. Each space has a distinct volume and ceiling height, with the central stair offering clear views through the whole house. Tapered oak verticals are used as supports throughout, including primary drawing room columns, external veranda posts and the stair spindles.

COMMERCIAL & LEISURE: Rievaulx Abbey Visitor Centre & Museum by Simpson & Brown architects for English Heritage. The aim of this project was to upgrade the museum building to meet modern curatorial standards, encourage visitors into the ruins and improve facilities. A glulam spruce central hall has been inserted into the existing L-shaped timber visitor centre. Visually the new structural frame echoes the existing columns and arches of the abbey ruins.

EDUCATION & PUBLIC SECTOR: Maggie's Oldham by dRMM architects. Built in the grounds of NHS cancer hospitals, Maggie's Centres offer free practical and emotional support for people affected by cancer. Supported on slender columns, Maggie's Oldham floats above a garden framed by pine, birch and tulip poplar trees. From a central oasis, a tree grows up through the building, bringing nature inside. Maggie's Oldham is the first permanent building constructed from sustainable tulipwood CLT.



SMALL PROJECT: Feilden Fowles studio by Feilden Fowles Architects. Designed as a demountable structure, the studio is built of a Douglas fir timber frame clad with corrugated Onduline bitumen sheets. The materials are redolent of agricultural building forms, reinterpreted for its actual purpose to house an emerging team of architects. The judges praised how simple yet beautifully thought through the project is.

PHOTOGRAPHS BY DEREK JONES/GMC PUBLICATIONS

Chippendale International School of Furniture

Derek Jones visits the prestigious Scottish college

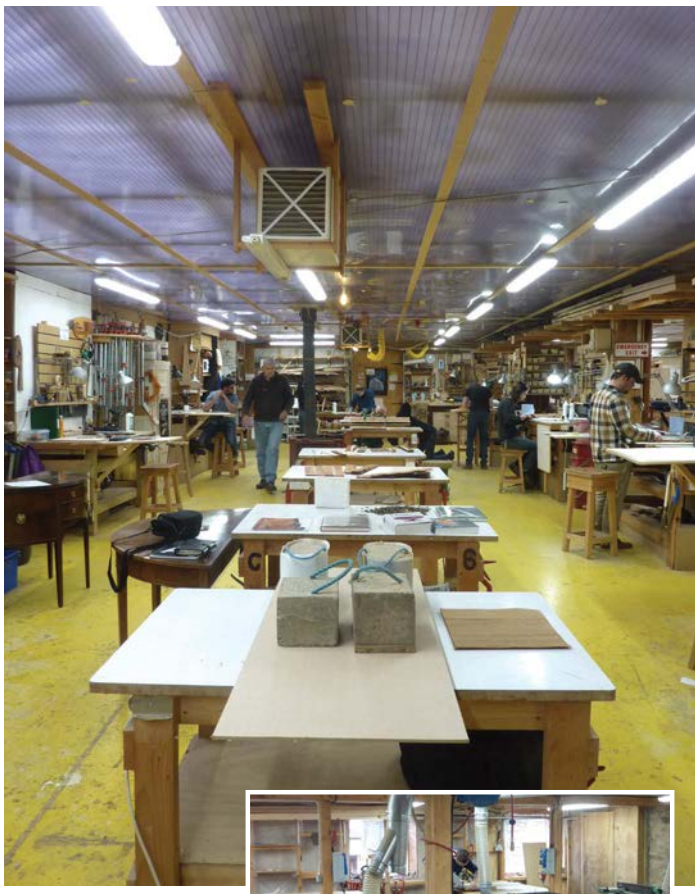
You've probably heard the expression that compares opinions to a certain part of the anatomy that we all have in common. It's not a particularly elegant notion but should you find yourself out of step with the general consensus it definitely takes the edge off things. Personally I'm not averse to a little alternative thinking even though my GMC-installed microchip tends to homogenise radical opinion within these pages. The full unexpurgated version is usually reserved for my nearest and dearest who responds with rolling eyes and an expression that says 'he's off again'.

One thing that a life in the furniture making business has taught me is that it's easy to become weighed down by the philosophical baggage of design and purpose. In my travels over the years to interview numerous designer-makers I've met those who prefer to operate on a higher plane of some sort and those that thrive on pumping product into the marketplace at a pace that would make your head spin. I should say I respect both and all the points in between. I can usually tell if they're happy with their lot, enthusiasm is hard to feign and impending misfortune even more so. Most creative people I meet spend their lives ricocheting between the two and for the most part thoroughly enjoying the experience. On a visit north of the border to interview Anselm Fraser at the Chippendale International School of Furniture I met a man who was completely at ease with the idea of either scenario and willing to convert all of life's little challenges into opportunities.

Dare to be different

When Anselm set up the School almost 30 years ago it was with the intention of training students to become commercially viable within the field of bespoke furniture. By anyone's standard that's a tall order as success can depend as much on one's ability to make as it does to market. Although the School does not equip students with the skills to make furniture in the style of their namesake it does instil a philosophy of market awareness. Anselm put it to me like this: 'We don't believe in teaching people to cut the perfect dovetail or to look for perfection in every detail, that's just not realistic. A year is such a short time to master that level of precision. We aim

As workshops go it's a quite space geared to studying



The main workshop is similar to a well stocked professional 'shop

The machine 'shop is well equipped with plenty of choice

to expose the students to as many options as we can to earn a living from making the minute they leave us.'

The driving force behind the School is undoubtedly Anselm. He's a great storyteller, his enthusiasm for sharing information is equally infectious and only surpassed by his 'can do' attitude and insatiable capacity for rewriting the odd rule or two. I'm reluctant to put this down to eccentricity alone, although this would be easier to explain. Instead I believe it's got more to do with creating an atmosphere that encourages students to experiment and be unique.

The main workshop is a place to think, work things out and absorb information, it's also where the tutors deliver most of their demonstrations. With the exception of a small bandsaw and chopsaw there are no machines allowed, not even power tools. There's even a separate room for sanding and one for finishing. Every inch of wall space is taken up by shelves; some with books, some with hardware and polishes and some with tools. It's hard to imagine there isn't at least one of everything ever made for a workshop in there. If that was impressive, the machine shop is one of the best equipped education facilities I've seen outside of a state-run college. In a series of connected outbuildings I counted three large table saws, a bench set up permanently for using a track saw, four planer-thicknessers and a number of large bandsaws. The 'shop is well extracted and one imagines that even at full tilt the waiting time to gain access to a machine would not hold you back. This area too is decked out with shelves on every wall, straining under the weight of neatly stacked and labelled boards. The School also has a good selection of locally sourced timber air-drying outside in front of the main entrance waiting to replenish the used stock.

Each student occupies their own space

Locally sourced timber drying in the open air

A student getting some one-to-one instruction from a visiting lecturer

The library doubles up as a lecture theatre

A global campus

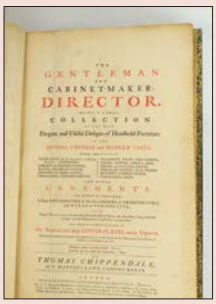
As we work our way around the various workshops and machine areas Anselm refers to the grounds as a campus and given the sprawling nature of the buildings he's right to do so, albeit not on a grand scale. I'd seen plenty of pictures of the school prior to my visit and none of them made me want to go there, which is a shame. Some workshops just don't look pretty in pictures and those that do don't always work well as workshops. The main workshop at Chippendale has a real buzz about it. The floor is canary yellow and the ceiling is clear corrugated plastic, partly for insulation but mainly to allow as much natural daylight through the roof lights in the eaves as possible. Daylight fluorescent tubes do a fine job at creating a natural ambience. A number of wood burning stoves strategically placed around the workshop make it unbelievably cosy and with a thick layer of snow outside I can't imagine a more welcoming retreat in the winter months. Each student has their own bench equipped with a fold-down drawing board positioned against a wall or partition with an assembly table close by. And despite the close proximity of the nearest neighbour each bay has an individual air about it. That's not entirely surprising given that the School attracts students from around the world. This year's intake include students from Germany, Trinidad and Tobago, Switzerland, the USA, India and the Falkland Islands – a first for the school.

As well as daily practical demonstrations the students also receive more formal lectures in the school lecture room and library. It's also a good place to come for some quiet time away from the busy workshop. As well as the obvious need to train students in how to use machines safely the course also covers veneering, wood technology, finishing and drawing. During their year-long stay at the School each student will cover a piece of restoration as part of their training. This is one area that leaves me wondering if that's such a good idea. Having repaired more badly repaired furniture than I care to remember I'm reluctant to overthink it too much. Anselm's take on this is along the lines of a taster buffet. If you've tried it and like it then, why not factor it into your business when you leave, and he's got a point. Come to think of it I did a good trade in repairing wonky chairs when I went out on my own, so perhaps I shouldn't be too critical. Looking back I don't recall anyone walking in with a genuine antique and in a startup situation it'll be the bread and butter work that gets you through the lean times. And anyway, if we saved every stick of furniture ever made there wouldn't be a need for furniture makers.

Thomas Chippendale

The name Thomas Chippendale is known the world over and is a by-word for quality and craftsmanship in furniture making. Chippendale set up his permanent premises in St Martin's Lane, London in 1755, from where he was able to service the aristocratic and wealthy residents of the expanding West End. What's not as well known, however, is that the London workshop was one of the most prolific enterprises of the 18th century, outputting far more than nearly all of its competitors in the same area. The secret to Chippendale's success came in the form of a catalogue containing hundreds of individual designs for items of furniture and entire suites that potential customers could browse and ultimately order from. Until its publication in 1754 there was nothing else like it and it quickly became the way to do business with two further updated versions being published before the rococo theme had burned out. *The Gentleman and Cabinet-Maker's Director*, to give it its full title was sold on subscription before it was published with each investor earning the right to have their name in print in a long line of credits. Many of the orders came from other cabinetmakers and carpenters from outside of London, presumably looking for inspiration and to keep in step with the latest fashions in interior furnishings. A copy of the *Director* when it first appeared would set you back just a little over £1. At the time a skilled craftsman would be earning around £12 per year so it represented quite a substantial investment for many of the subscribers.

Fast-forward a couple of centuries and not much has changed, we're still crowd funding, although design has moved on and catalogues are more virtual than vital.



The influential *Director*

Entrepreneurship

Whereas most independent teaching facilities attempt to steer their intake towards a career catering for the top end of the market, Chippendale take a different view, the basis of which stems from a rather more pragmatic and perhaps more realistic outlook. As Anselm sees it, at the top end of the market it's not inconceivable to charge

A Leigh jig gives small workshops a competitive edge

£25k for a dining table or £2000 for a chair. And with the majority of 'graduates' chasing these commissions the competition is understandably fierce, almost to the point where makers are working for peanuts just to get the work. The middle and lower ground, however, is not only a much larger market it's an expanding one as well with easier points of access to reach customers. At this level you're more likely to be working directly for your client and not through a designer or middleman taking a cut. For the savvy entrepreneur it represents easy pickings as two ex students of the school are happy to explain. In a separate workshop with access to all the machines Alan Nisbet and Andrew Cockerill chose to stay on for a year at the end of their course to establish their businesses in Anselm's incubation workshop. Using social media to promote their goods and an Etsy store to sell them, the two have generated sufficient orders in their first year to make the break and set up their own workshops when the time comes, effectively hitting the deck running. Now that's not entirely unheard of for mid-life career change students with some of life's expenses taken care of but for twenty somethings aiming for the first rung on the ladder it's pretty impressive.

My favourite success story from the School is a self-contained business operating on the campus. Ewan Ogilvie is also an ex-student who set up his own bespoke kitchen company at the end of his one-year course. Within a year he had acquired a reputation for making good quality cabinets and serves a growing demand for bespoke items in and around Edinburgh. The icing on the cake if you like, is that he now has two employees, both ex-students of the school. They're using every trick in the book to compete with larger manufactures and offer a bespoke service. The dovetails on the drawer fronts are machine cut and so are the finger joints at the back but they're still so much more appealing than the run of the mill alternatives and command a higher price.

Namesake

One of Anselm's many talents is rustling up a hearty lunch and as the only one at the table not driving later or in charge of a machine I might have caved in when offered a glass of red. I asked him about his choice of name for the school and he answered, 'Well, he's the most famous furniture maker of all time', inferring perhaps that all furniture making schools are missing a trick if they're not named after him. I wondered if in any way it might be misleading given that traditional cabinetmaking along the lines of Thomas Chippendale is not covered in any great detail at the school. To explain he grabbed a 1960s reprinted edition of Thomas Chippendale's *The Gentleman and Cabinet-makers Director* to illustrate that in fact this was his master stroke and not the furniture.

Seasoned timber waiting for a project

Can-do spirit

On my flight back to London to connect with a train to the south coast I was reminded how two people can see exactly the same thing yet react differently. My favourite regional airport to fly into is Edinburgh thanks mainly to the helpful and observant ground staff at London City Airport who, with bad weather and possible delays looming, thought nothing of putting me on an earlier flight to avoid both. My least favourite airport to fly out of also happens to be Edinburgh where the British Airways jobsworth ground staff weren't nearly as accommodating. More than a bit grumpy I sought refreshment and wondered what had happened to that can-do attitude I'd been getting used to? Neither Chippendales would be impressed.


An ex-student helping out in the bespoke kitchen workshop

Much like its principal, the Chippendale School is undoubtedly one of a kind and in some ways the complete antithesis of what you might imagine a furniture-making school to be like. Students of all ages and from all walks of life make the journey and no doubt thoroughly enjoy the experience. Anselm is after all an excellent host and Edinburgh is not too shabby either. My advice if you're contemplating a long course is to have a well defined vision of what you want to achieve at the end of your studies and that means doing your research at the beginning. F&C

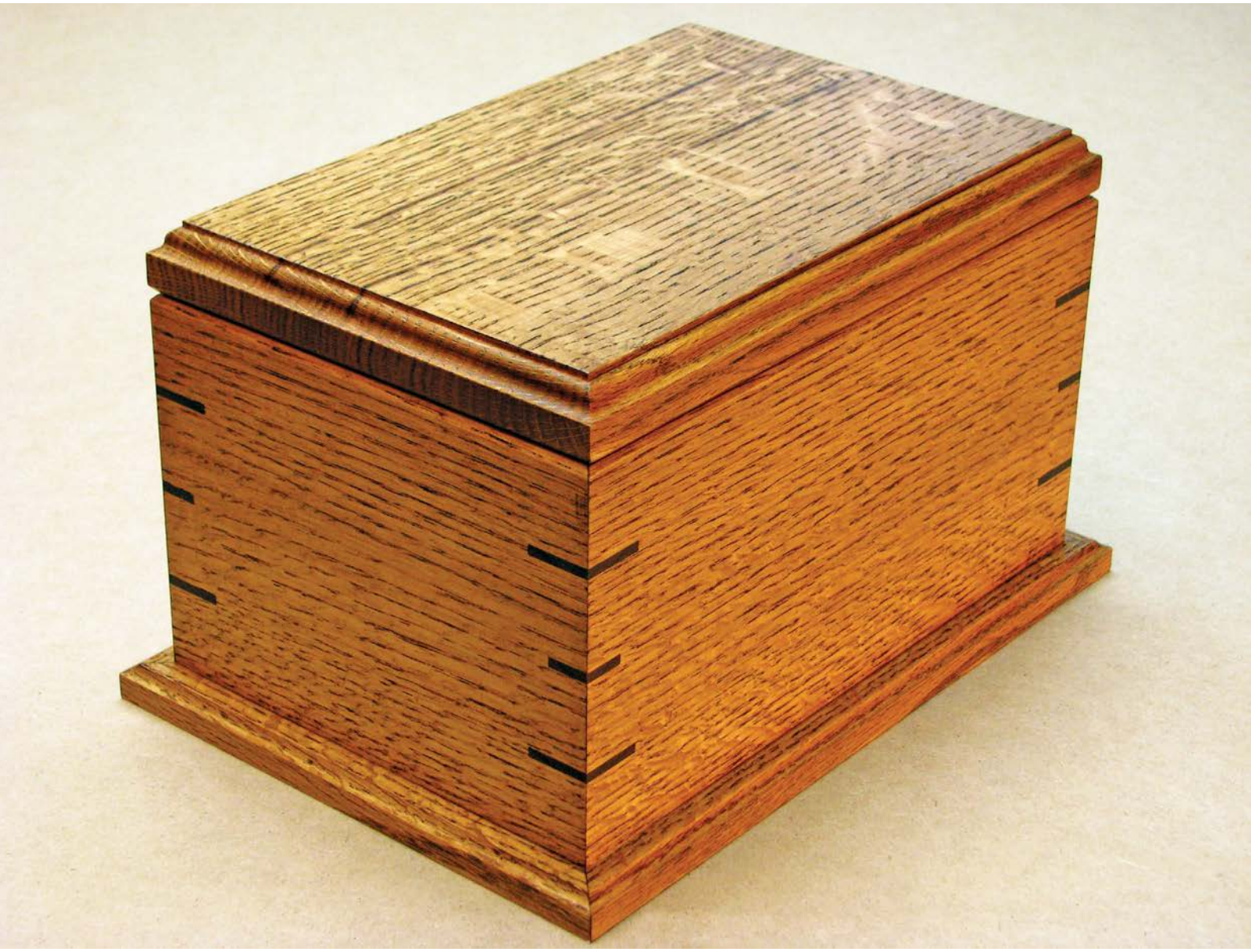
The Chippendale International School of Furniture
www.chippendaleschool.com


Finger joints and dovetails are a popular choice for bespoke customers


Kitchen cabinets lined up for finishing

A very personal project

Hendrik Varju builds an oak urn with deep family meaning



My father, also named Hendrik Varju, was born in Hungary in 1936. He survived the Hungarian Revolution in 1956, escaping the country to Austria, then Bristol in England and then Canada. Over 60 years later, at the age of 81, he is still here and I hope he will still be with us for a long time to come. After my mother's death in 2015, I started to think about my father's passing as well. Not that I expected it to happen imminently, but I knew my father wished to be cremated and I wanted to design and build an urn in which to bury his ashes. I knew I wouldn't have the strength to do it immediately after the shock of his passing, so I wanted to be prepared ahead of time. Fortunately, my father has never been afraid of talking about death. When I told him, uncomfortably, that I wanted to build an urn for him he said, 'Good idea. That'll save some money on the funeral.' In fact, when I built a brick-lined pit in my backyard to cook a Mexican dish known as 'cochinita pibil' (a Mexican pork dish wrapped in banana leaves and cooked underground – my mother was Mexican), I showed it to my father. He said, 'That's great. Now you can cremate my body yourself and save even more on the funeral!' Needless to say, I've decided against that suggestion.

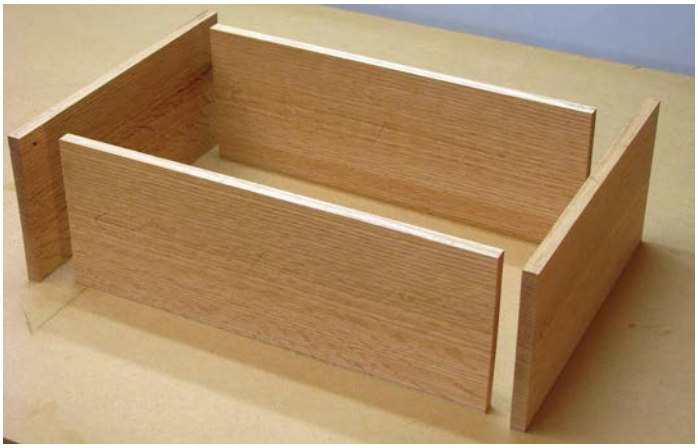
PHOTOGRAPHS BY HENDRIK VARJU

The design

My mother was buried in a casket and the cemetery will allow an urn with my father's ashes to be buried in the same plot. So it made sense to contact the cemetery first to confirm any special parameters. I was told the urn must be a maximum size of 12in in all directions but a minimum of 200 cubic inches in volume inside with the lid on. It was awkward to ask, but I wanted to know how much bigger it might need to be for a more 'generous' sized man. They said that 300 cubic inches would be very generous, but 200 would almost always be enough. I ended up with about 285 with outside box dimensions of 7in wide x 10½in long x 6¾in tall, not including the mouldings. I knew right away that I would build the urn as a box given that I'm not a turner. I chose quartersawn white oak for its weight and stability, with walnut splines for colour contrast. I thought mitred corners would be elegant but I needed to strengthen them so I incorporated splines, or slipfeathers, of two different sizes. The bottom is made of a piece of ¼in thick oak veneered plywood and I happened to have a pre-finished piece left over from another project. I added a mitred moulding to give some visual weight at the bottom. I also decided on a lid that just fit inside as opposed to using hinges. Hinges add complexity and I felt that simplicity was the best way to go.

The basic box

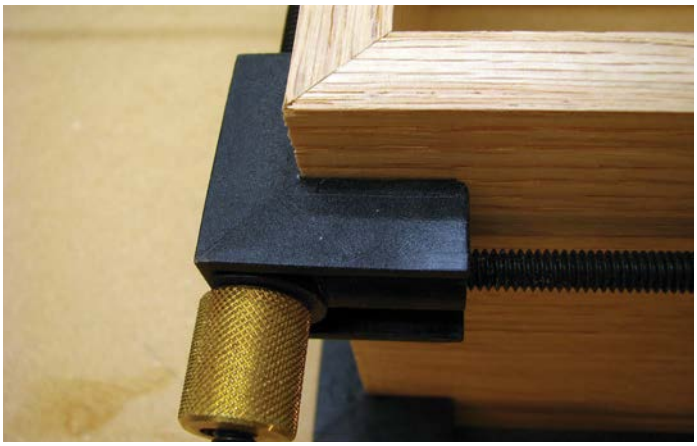
If you've cut box mitres before, you know that it's harder than it sounds. I used a Freud 50 tooth combination blade on my tablesaw because the angled cut is actually partially a rip. A common error is to use a 60 or 80 tooth crosscut blade, but it will often burn and you'll see some overcutting at the entry and exit points, resulting in a slightly curved cut. Try a combination blade if you never have and you'll see a marked improvement. I used a mitre gauge set at 90° with the blade angled to 45°. After a couple of test cuts, check to see that the resulting joint is 90° and tweak the blade if necessary. Errors will multiply by the time you cut 8 mitres to form 4 joints, so this needs to be quite accurate. If you have any error, it is best for the inside corner to be slightly gappy rather than the outside corner that is most visible. Once the mitres were cut, it was simple to cut a through groove for the plywood bottom. You can achieve this on a router table with a grooving tool or by hand with a plough plane. Then I sanded the inside of the box before assembly and glued the box sides together with the bottom trapped in the grooves. A little glue on the mitres is plenty to hold the box together temporarily until the slipfeathers can be added. Veritas 4-way speed clamps are the simplest way I know of to glue up a mitred box and they worked beautifully.



Four clean pieces of quartersawn white oak

Mitred and grooved for the base panel

Veritas box clamps make gluing up easy

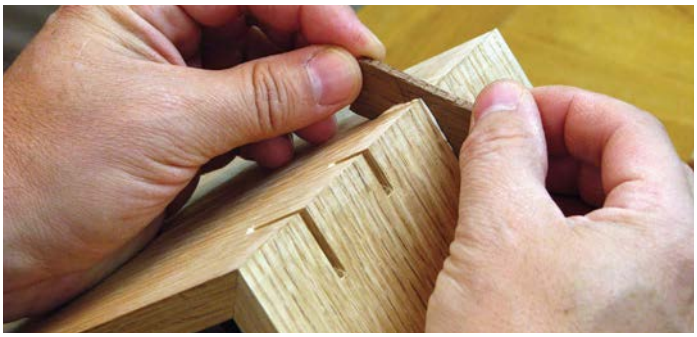


The corner blocks help with alignment

Slipfeathers

After the glue dried overnight, I cut grooves in the corners for the slipfeathers, also on the tablesaw. A rip blade works best and a sliding fence setup allows me to clamp the box at exactly 45° and then stand back while I slide the fence forward. Blade height is set about 1/16in below the inside corner of the box so that the slipfeather doesn't poke inside. I lowered the blade for the centre slipfeather so that it would be smaller. Notice that in laying out the spacing of the slipfeathers I accounted for the moulding detail that would be added later. When making the slipfeather material with planer and thicknesser, I aim for a fit just .001in thinner than the kerf size. After the glue dries, remove excess slipfeather material with a flush trim saw and use a hand plane to trim fully flush. Always plane with the grain of the slipfeather, which means from the corner of the box to the middle. I use a low angle block plane since the slipfeather is partially end grain, but be careful not to cut the surrounding material as the lower effective cutting angle is likely to cause tear-out if cutting against the grain. A little sandpaper can be used at the end if necessary.

Cutting the spline grooves on the tablesaw



Slipfeathers help to strengthen the corners of the box

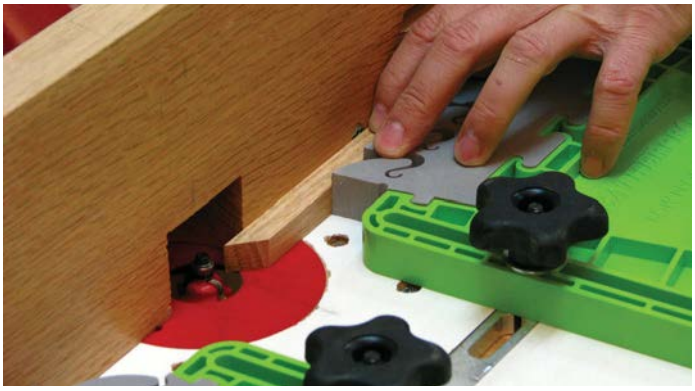
Clamping along the mitres helps to close any gaps

Trim the excess away with a flush cut saw

Plane smooth with a block plane in the direction of the grain

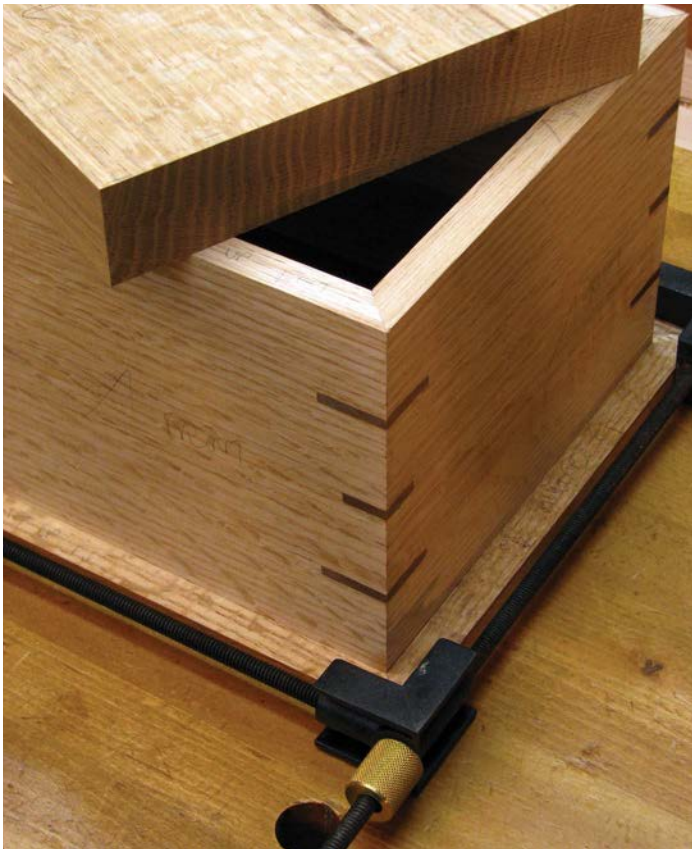
Mouldings

Next came simple mouldings just ½in square in profile. I cut the mitres on the tablesaw but this time with the blade vertical and the mitre gauge angled to 45°. Then over to the router table to add a decorative profile. Because the parts are small, use featherboards to hold the wood to the fence. You can also use a featherboard or pushstick to keep the wood tight on the table. Before glueing on the mouldings, remember to final sand the outside faces of the box because this will be harder to do afterwards. You can also sand the top edge of the mouldings. Then a tiny bead of glue along each moulding and a drop at each corner will do.



Featherboards apply firm pressure on small components

Account for the moulding when spacing the slipfeathers



No nails required

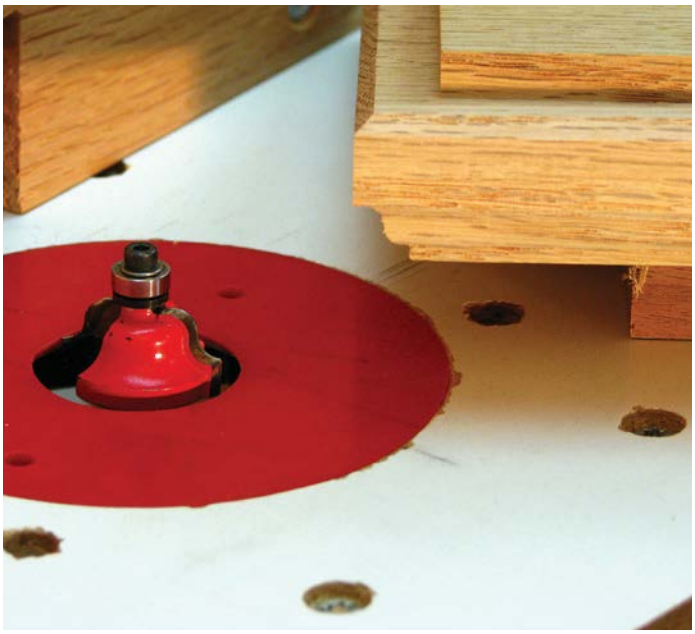
The lid

For the lid, I chose a quartersawn piece of wood. I milled it and cut it to the exact size as the outside of the box. Then I just needed to rout a rebate to fit the lid into the box. You'll notice that I chose a piece of wood that was unusually thick, but once part of the lid was inside the box and the top corners received an ogee profile, it looked well proportioned. The rebate is easily cut with a straight bit or rabetting bit; the larger the diameter the better to reduce tear-out. Make each rebate cut on the ends of the lid first, using a wide backer board to eliminate break-out on the exit point and also to help guide the lid safely along the fence. Then make the same cuts on the long edges of the lid. Keep cutting about 1/16in deeper per pass until you are happy with the overall depth. You must also customise the width of the rebate cuts so that the wood left in the middle of the lid will fit inside of the box. Aim for a fit which is just a bit loose to account for expansion of the lid from front to back in humid weather. After the rebate and ogee profile, I also routed a small chamfer on the underside of the lid and at the top of the box, which gives a nice line of separation between them.

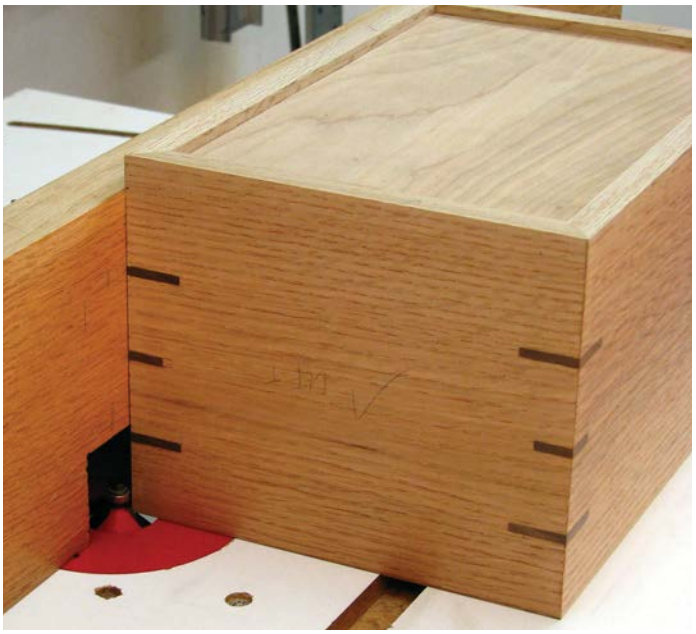
Cut the rebate on the underside of the lid starting with the ends

LEFT: Machine a small chamfer to the edge of the rebate

BELOW: The underside of the lid



An ogee profile is routed into the top edge of the lid



A chamfer matching the one on the underside of the lid is applied to the top of the box

Sanding and final steps

After completing the lid, there was more sanding to be done on the mouldings, the bottom, the top edges of the box and the lid on both sides and edges, I also added my signature on the bottom. My father and I have the exact same name so the signature identifies the maker and the person for whom the urn was made.

While the urn looked great with the lighter coloured white oak and darker walnut slipfeathers, I felt that a darker colour would be more appropriate.

I added colour by using black walnut tinted Watco Danish oil, which is a 'stain and finish in one' product that colours with asphaltum. I stained all areas except I used a natural (unpigmented) Danish oil mixture on the bottom panel so as not to obscure the signature. Because the black walnut tone was quite cool, I added 25% cherry Danish oil to warm it up a little, which equates to one part cherry to three parts black walnut. I then took that mixture and added 25% satin varnish resulting in a one-part oil-based satin varnish to three parts Danish oil mix. Five coats of this is usually enough, and it's as easy as can be; wipe on a generous amount and then wipe off the excess with a rag, rubbing in the direction of the grain. I also wet sand the surface with 600 grit wet/dry sandpaper while applying the last coat, which makes the surface silky smooth. Three or four weeks later, one coat of paste wax applied through a rag and then buffed off with another rag and the urn really feels spectacular.

The urn looked a little too light

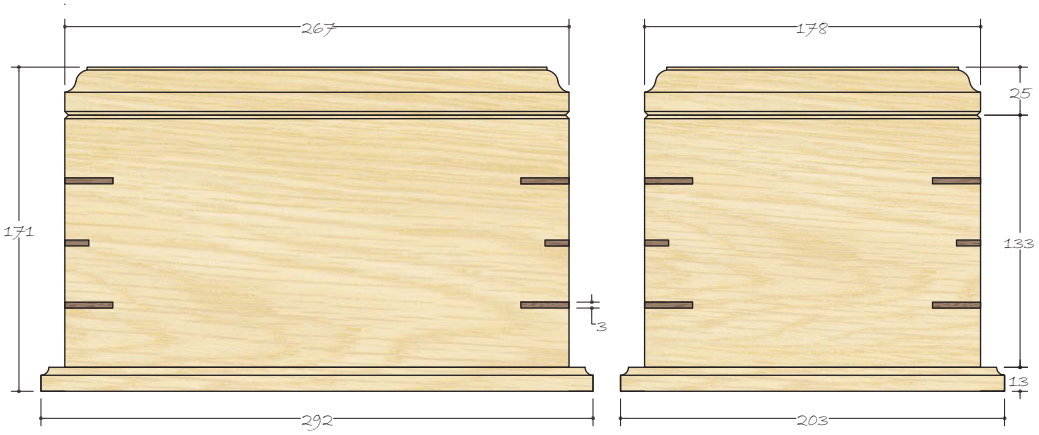
A black walnut Danish oil warmed the colour

Presenting the urn

When I completed the urn, I invited my father to my workshop to see it and take a few pictures of us together with the urn. Admittedly, I was a bit nervous about it. While my father has not shown any fear in talking about death, it still doesn't feel like a 'proper' conversation. Still, I now feel a sense of relief knowing that the urn is done and ready for whenever it might be needed. My father's initial reaction was to say, 'Really? I'm going to fit in there?' I showed him how heavy the super thick lid is and he was surprised at its heft. I told him that given all he has survived in his life so far, I was afraid he might try to get out if the lid weren't heavy enough! He laughed.

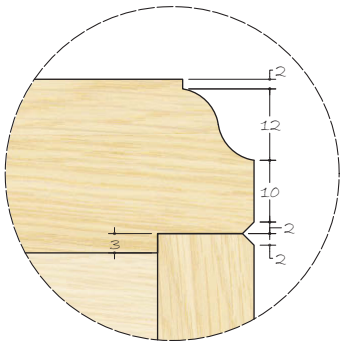
While I could have purchased an urn fairly inexpensively when needed, it has great meaning to me that this project represents the last thing I can do for my father. This is the only project I've ever built that will be buried and will disappear forever yet it is so much more meaningful than most knowing that my father can finally rest in peace when he is ready. F&C

Hendrik Varju Senior and Junior

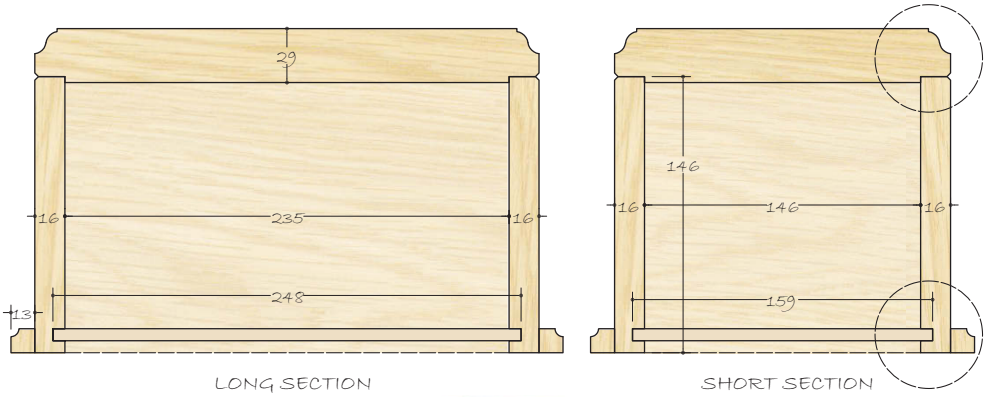


FRONT ELEVATION

END ELEVATION

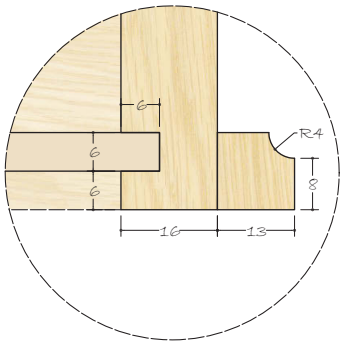


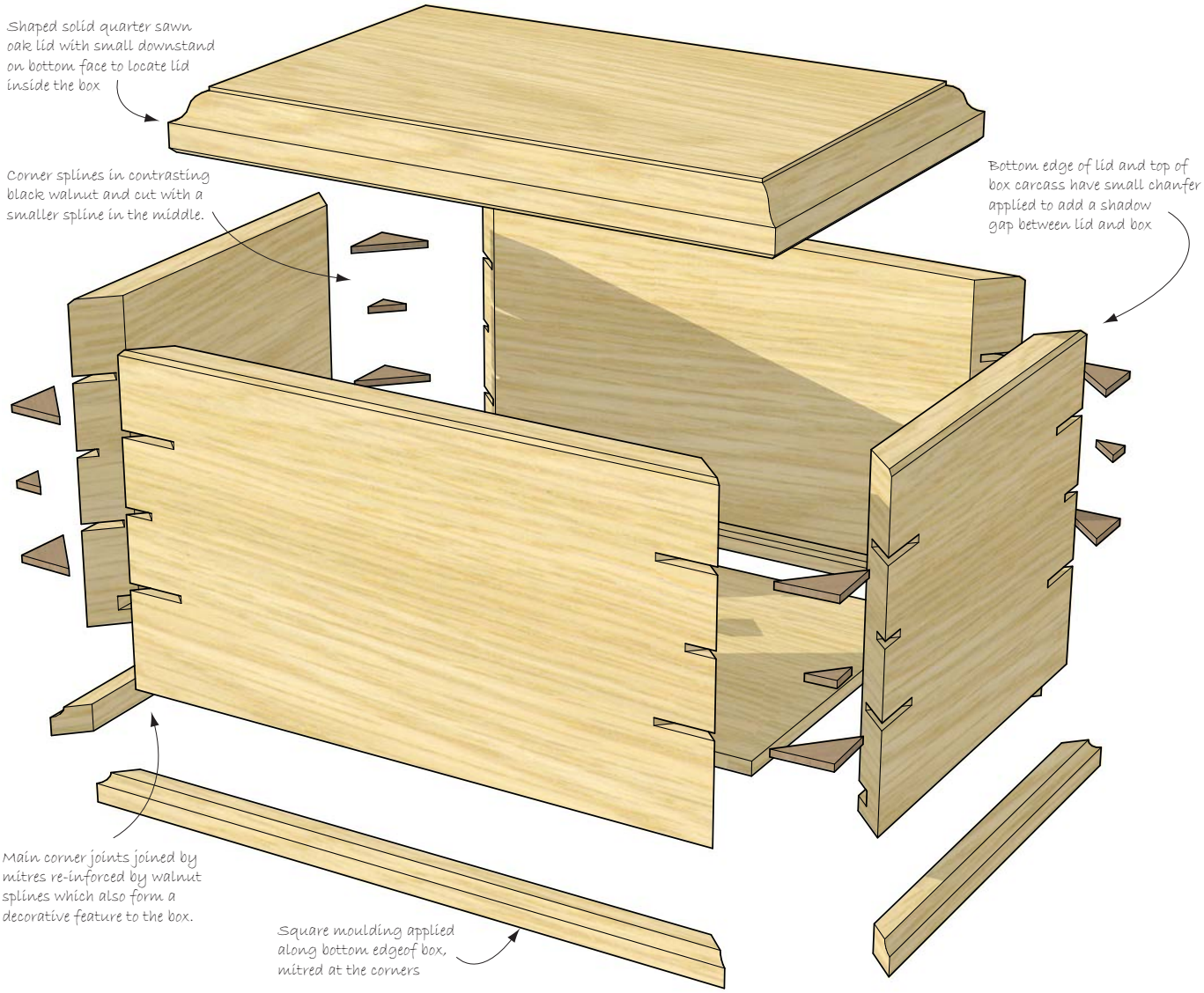
SECTION DETAILS



LONG SECTION

SHORT SECTION





On test: Felder K700s sliding tablesaw

Can you really get by without all the whistles and bells? Absolutely, especially when the basic model is this good

The numbers

Rip capacity from fence: 800mm or optional 1250mm
Maximum height capacity with 315mm blade: 104mm
Motor: 400v (standard) 230v (no extra cost option)
Power: 5.5, 7.5 or 10 HP
Sliding table: 2.5, 2.8, 3.2 or 3.7m
Crosscut fence: 1.3–3.2m, depending on outrigger size
Working height: 890m
Standard weight: 740kg
Price: from £7000 plus vat

PHOTOGRAPHS BY DEREK JONES/GMC PUBLICATIONS

I've been using woodworking machines much longer than I've been writing about them and over the years I've seen a steady stream of technology creep into the basic functions of entry level machines that were once only found on high spec models, and there's nothing unusual about that. But technical upgrades can also come at a price over and above that which is quoted on the order form as the majority of 'issues' pertaining to faults and breakdowns are more likely to be related to automated functions.

To put it bluntly, technology isn't always what it's cracked up to be when it's done on the cheap. Again, nothing unusual about that but it's incredible how often we get sucked into an upgrade only to find we'd have been better off with a standard model.

If what you're after is a rock solid platform that does all the basics really well, albeit manually, where should you start looking? Well, my advice is to start your search somewhere in the middle of the glossy catalogue.

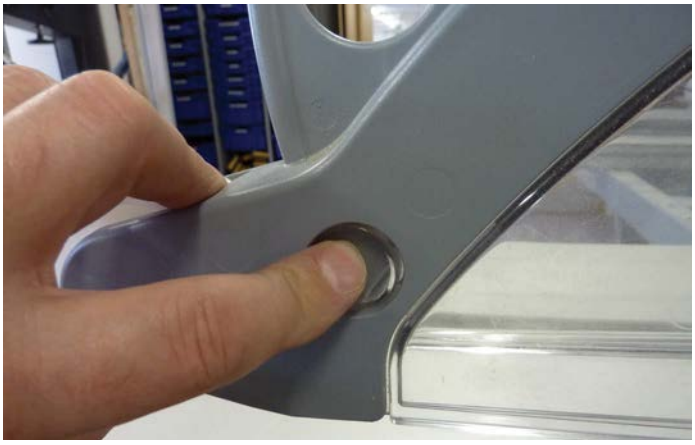
Felder's K700s is one such machine and one that I've been using now for almost a year. It doesn't come with any automated features like motorised blade tilt or rise and fall and there aren't any digital displays either. Instead you have to rely on printed scales to set up a cut and a certain amount of manual labour to make some adjustments. I liken it to a fly-by-wire experience or racing a car around a track without the traction control enabled; a little more work but so much better for the soul in the long run.

Cranking it up

The tilt scale on the K700s is calibrated at 0.5° increments with 22.5° marked on the dial for convenience. A full revolution is roughly 2° so to get all the way over to 45° you'll need to wind the wheel about 20 times. It takes about 10 seconds. Lean the blade over any further than about 20° (about three seconds) and you'll need to replace the standard guard for the larger one. It's dead easy to do and no less hassle to make the change back again. It makes a huge difference to your work flow when things like this work smoothly and they do. Talking of which the beam that supports the entire crown guard assembly is also easy to adjust. Crown guards aren't just there to obstruct access to the blade, they play a crucial role in collecting dust as well, which is in the interest of the saw as much as the user. Assuming you have adequate extraction in place you can lower the guard so the nylon wheels just touch the workpiece and achieve excellent results. The system extends below the table as well as the saw blade is completely enclosed in a ported solid cast-steel aggregate; a design that also helps to mitigate vibration.

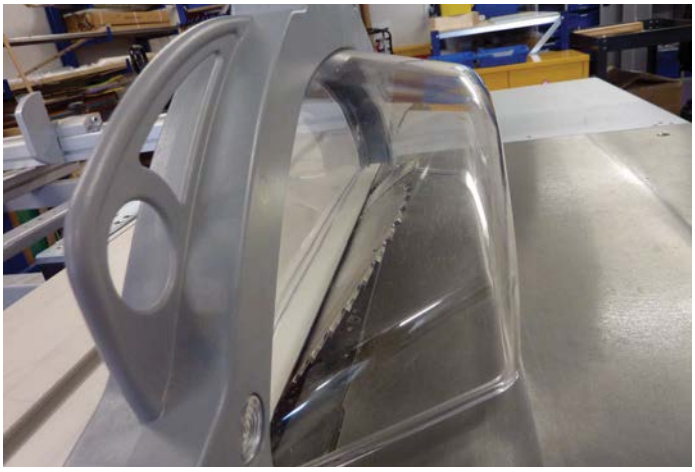
The other, more frequently made adjustment to the blade position is height and on the K700s that again is a manual operation. A combination of wheel and lever is used to make changes to the main blade and the scoring blade on a shared spindle. The scoring blade is slightly more fiddly to adjust but that's generally something that all makes of machine have in common. If that's a deal breaker, you might want to consider taking up crochet instead! In terms of force required to make these adjustments, the rise and fall is much lighter than the tilt. Perhaps what makes the controls easier to use is having the lateral adjustments for the scoring blade accessed through the cast table top.

Old-school dial and wheels are so much better for the soul



Push buttons hold the clear guards in place

The guard can be lowered all the way down to the surface of the table



Tilt cuts are completely covered

Height adjuster for the main blade and scoring blade

Access all areas

Access to the central spindle for blade changes is achieved by sliding the carriage past the lock position, forward to gain access to the main blade and backwards for the scoring blade. With the cover plate open you now have good access to the riving knife and the tracks in which the main body of the blade housing and motor tilt. At first glance you might think that these surfaces require some maintenance but the Felder 'Easy Glide' system is a zero-tolerance, maintenance-free design composed of a synthetic material that is impervious to dust. Tried and tested in the aerospace industry, it requires no lubrication and comes with a six-year guarantee. At the back of the machine a panel can be removed with a torx-like driver to gain access to the inside for cleaning. At the front of the cabinet there's another panel behind which lies all the electrical connections with a label that basically says 'keep out'. Unless you're a trained engineer do as it says. Felder use a slightly different locking nut than other makes to secure their blades on the spindle. A small hex screw has to be loosened against a much larger nut. It's counterintuitive at first but means the gorillas in your 'shop won't be able to tighten things up so tight that everyone else runs the risk of skinning several knuckles in the process of undoing it. The arbor itself is electronically balanced and driven by a Poly-V belt resulting in what Felder claim is an 'almost perfect transmission of power to the blade'.

Great access to the chamber for changing blades

The small hex screw helps to avoid over tightening

Slide the carriage forward to gain access to the scoring blade

Access inside the machine is good for general maintenance

Interface

The K700s has all the features you need from a dimension saw; the ability to cut in front or behind the crosscut fence, with telescopic stops up to 2600mm with mitre function via an outrigger that can be positioned along the sliding carriage. The telescopic arm uses eight bearing guide rollers to achieve a smooth action regardless of weight. Felder offer an accessory with pin stops for common angles to simplify this function. The corresponding component is Felder's X-Roll technology for delivering a smooth running action for the carriage where barrel bearings are positioned to run on hardened guides. The system comes with a 10-year guarantee. It also has a solid but easily adjusted parallel fence for rip cuts. It's no coincidence that these tend to be over-engineered to be of any use and as a consequence can be heavy and therefore hard to manoeuvre. The weight of the fence on the K700s glides back and forth on a nylon wheel so it's a cinch to move. The aluminium extruded section can be moved to facilitate cutting of thin material and can be positioned to allow safer ripping. The fine adjust does precisely that. The numerical scale is attached to the main part of the table and will need calibrating every so often. It's a lot easier to do than it sounds and should only take a few minutes. Incidentally, if you use blades of varying thicknesses either by choice or as a result of several sharpenings, you'll need to carry this out each time on the scales either side of the blade.

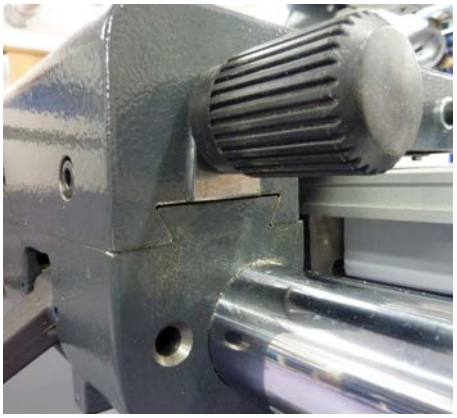
On the crosscut slide the scale is angled towards the operator for ease of use. The viewing windows are slightly magnified, which helps as long as they're not caked in dust.

All the knobs, levers and wheels on the K700s are nicely finished and robust; a general feeling of quality and attention to detail that's repeated throughout the machine.

In terms of performance, the spec required for a machine like this should be driven by the type of work you're engaged in. If the bulk of your work is processing sheet goods the K700s will churn out components all day long without breaking a sweat. If on the other hand you need to convert thicker stock from solid timber then select from the range of motors and it will happily perform like a tablesaw for ripping as well. F&C

The standard outrigger will support a 2.6m long board

Hefty support for the parallel fence



Fine adjuster on the parallel fence

Loosen a thumb screw to recalibrate the fence scale

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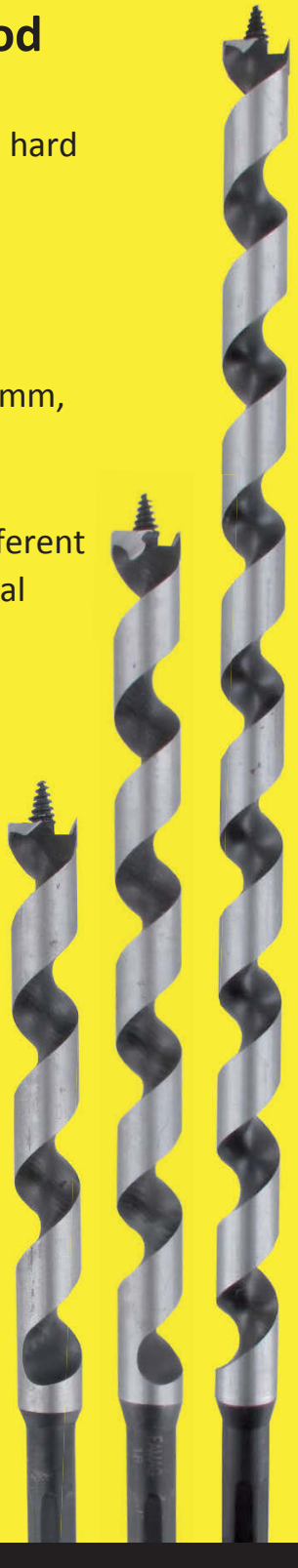

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Making the Akin Stool II

Philippa Lobb takes us through the manufacture of a bar stool that champions wood joints and traditional craftsmanship

PHOTOGRAPH COURTESY OF PHILIPPA LOBB

The Akin Stool II is a further development of the original Akin Stool, which was the product of my final project at Northumbria University. This project was an analysis into the design and manufacture of bar stools while looking into their ergonomics and styles. The aim was to create a stool that would fit the needs of the user as well as championing the craftsmanship of hard wood. When given the opportunity to make enhancements on the Akin Stool using user feedback, the Akin Stool II was then produced. It incorporated new features such as the contouring of the seat, adding extra comfort for the user.

To get an understanding of the features and dimensions needed to create a bar stool, I analysed similar products and then prototyped and tested my ideas. I also talked to several interior designers to gain an insight into what the market is looking for.

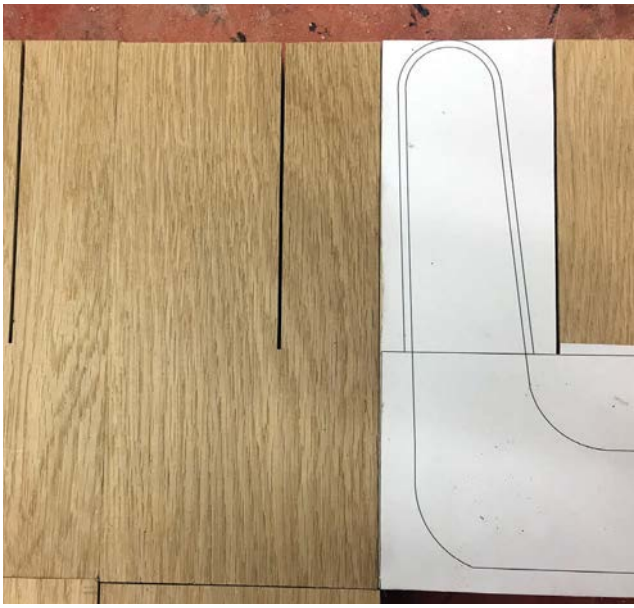
The final stool took inspiration from several designs, including the Hamper sofa by Ezio Riva and Arturo Montanelli, which has a beamed structure. Made from nine solid oak beams, the Akin Stool II is constructed with finger joints that give a comfortable, mid-height backrest, as well as displaying traditional craftsmanship.

Preparing the finger joints

The oak was firstly planed, thicknessed and cut into the seven identical sizes for the seat and the seven identical pieces for the backrest, which would then be joined to create the finger joints. Sticking a printed out 1:1 scale CAD drawing onto one of each of the seven identical pieces gave me a template to follow. The bandsaw guard was set and another jig was set up on the bandsaw table using a straight rectangular piece of wood and a G clamp. Setting up the guard and jig meant that once the first piece of wood was cut using the template the others could be cut to the same size restrictions, making them all uniform.

Planing and thicknessing the oak for the backrest

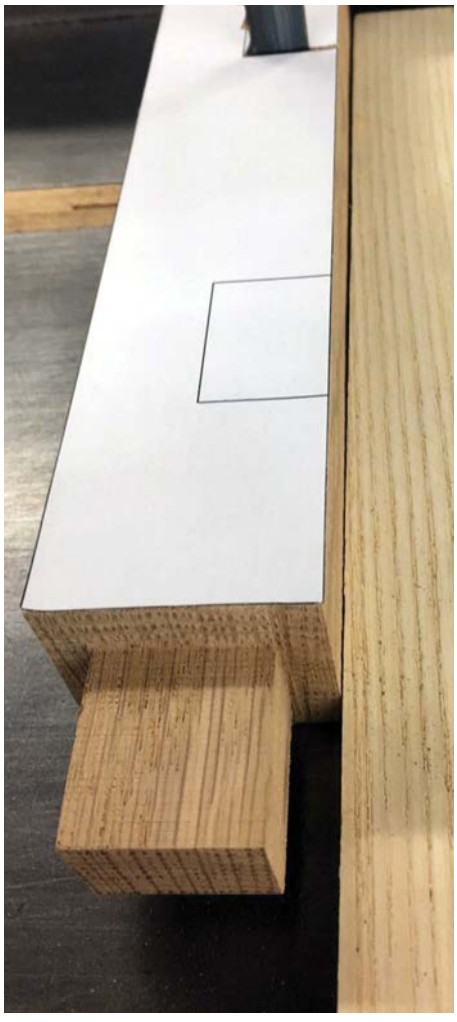
Setting up the guard and jig on the bandsaw



Each piece could be cut to a uniform size

Cutting the gaps for the lap joints under the beams

While cutting the finger joints on the bandsaw, the same jig and guards were also used for the lap joints on the base of the beams. The waste material could not all be removed on the bandsaw due to the blade not being able to access it. Therefore, as much as possible was removed by cutting into the waste material at angles between the guidelines cut with precision using the guard and jig. Once this was done, the remaining small triangle was removed using a chisel. A piece of scrap pine was placed as a base under the beam to be chiselled down onto it, this avoided 'breakout' of the grain as it was forced down under pressure. This process was also applied to the other two simple rectangular beams that made up the final seat. They attached to the back legs and therefore did not incorporate finger joints, instead there was a tenon on one end which connected to the back leg. The two beams that were at each end of the seat did not have their lap joints cut in this way, as the slats underneath were not visible from the sides. The waste material from these lap joints was instead removed using the mortise drill and then neatened using a chisel.



RIGHT TOP: Cutting the lap joints
RIGHT BOTTOM: Removing the waste
FAR RIGHT: Cutting the beams for the seat

Interlocking and glueing the finger joints

The joints were made up of three fingers of the same width. The seven backrest pieces have the two fingers on the outside with the gap in the middle; this was achieved by cutting the guidelines on the bandsaw and then chiselling the centre piece away to form the gap. The seat pieces have one finger in the centre, which was created by removing the outside pieces on the bandsaw. Making sure these joints fitted together snuggly with no visible gaps required a lot of patience and accuracy. The joints were glued using PVA and left to dry while clamped in vices, extra clamps were used so that pressure was applied equally and evenly.

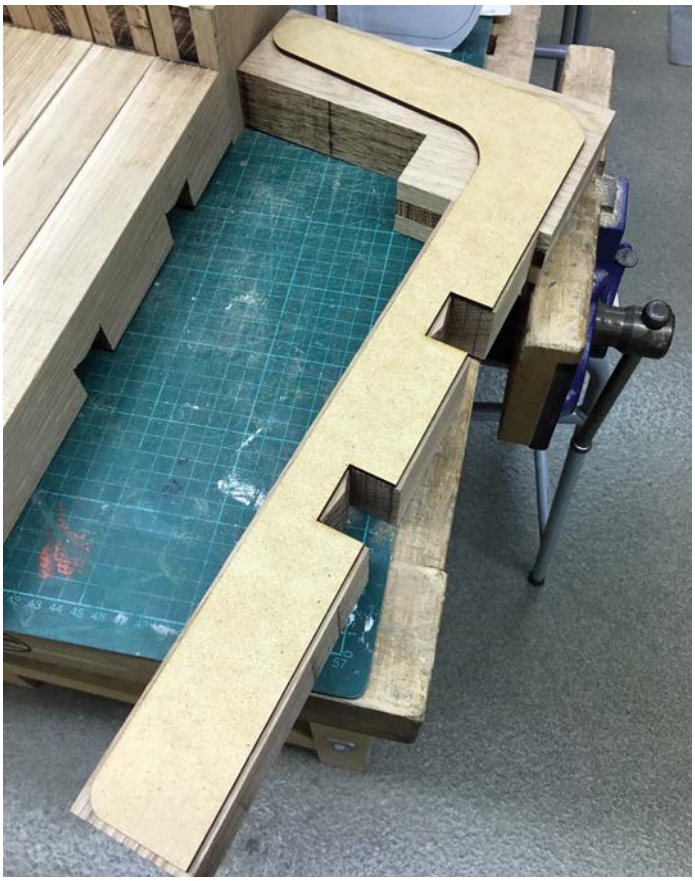
Fitting the joints took a lot of precision and patience

Chiselling to form a gap in a backrest piece

Extra clamps were used to apply pressure evenly

Final shaping of the seat beams

A 1:1 scale side view of the seat beams was laser cut from a sheet of MDF and used as a template. Using double-sided tape, it was stuck to each glued joint and one by one cut around using the bandsaw and then sanded on the bobbin and belt sanders so that each beam was an accurate replica of the template. Cutting each beam separately also gave me the opportunity to add the recessed contours of the seat into each beam, which would give extra comfort to the sitter. The two end beams were separated from the rest during this process. They were shaped in the same way but they do not have a recess cut into them. These two beams also attached to the two front legs and therefore were shorter and had tenons cut into the ends of them to form the joints that would connect them to the front legs.



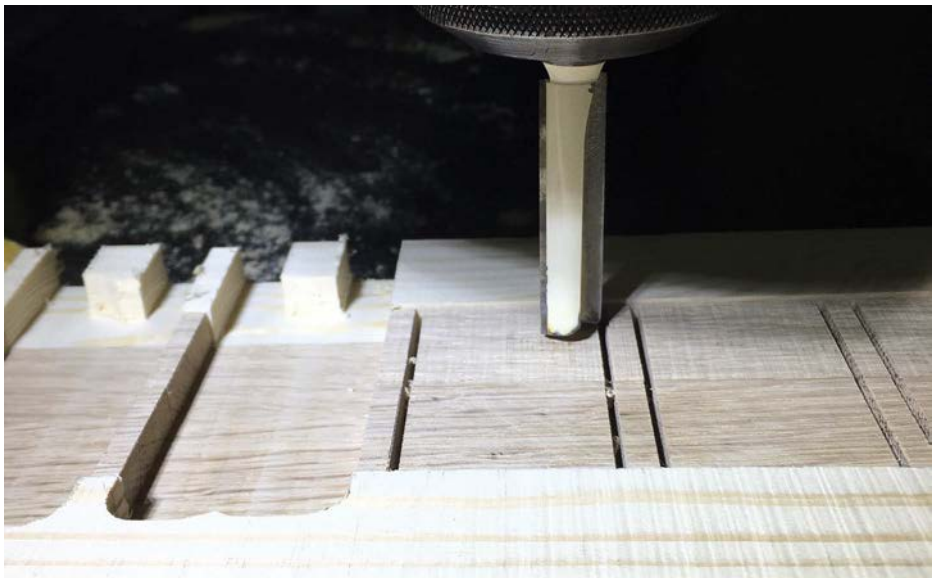
The MDF template was attached to each beam …

… so that each one was an accurate replica

Making the slats and attaching the beams

The nine beams that form the seat are held together by being lap jointed onto two supporting pieces of wood that run horizontally underneath. These pieces of wood also keep the beams evenly separated using manufactured spacers. The over-head router was used to machine the beam width into the supports at identical intervals and the raised sections left were used as spacers to keep the beams uniformly separated. The pieces were clamped between two pieces of pine to avoid break-out, which could have also caused the thinner, more fragile pieces to break away.

The beams are separated by spacers



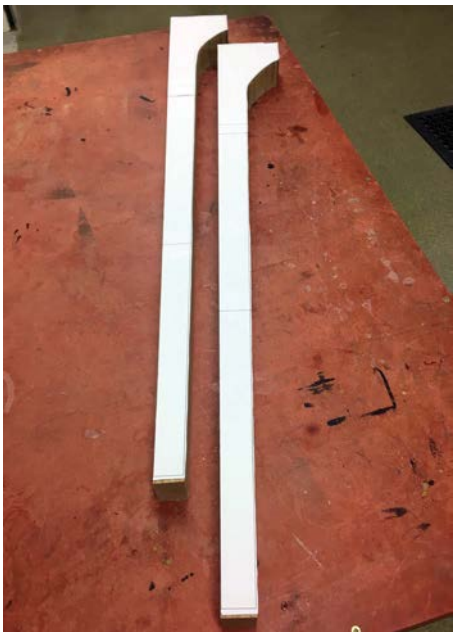
Routing the beams

Shaping the legs and connecting the footrests

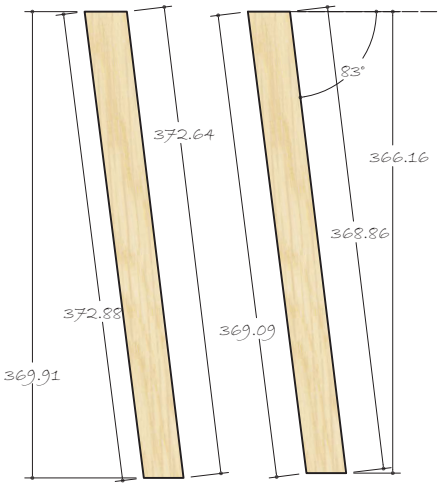
Before cutting the legs, the mortise was created using the mortise drill. This was done first so that the edge that was being drilled into and the edge that was rested on the drill table were parallel creating a hole drilled at 90°. Therefore, when the tenon was inserted the seat beam joining onto the back leg would be parallel to the floor. The front and back legs were straightforward shapes to produce, as a template was printed and glued onto the wood and then cut around on the bandsaw. To make sure the pairs were the same, double-sided tape was used to temporarily glue them together while they were sanded and shaped.

As for the footrests, the overall length, width and height were easily cut on the tablesaw; the angles, however, were more complicated as the side footrests had compound angles at each end. These compound angles were firstly worked out using CAD drawings. Once a detailed sketch was done, the angles were then created on the disc sander, as the guard on the table could be rotated to form one angle, while the table could also be tilted to form another. Once set to the correct angles, the wood was quickly and easily sanded into shape.

Drilling the mortises



The legs were taped together to ensure they were identical

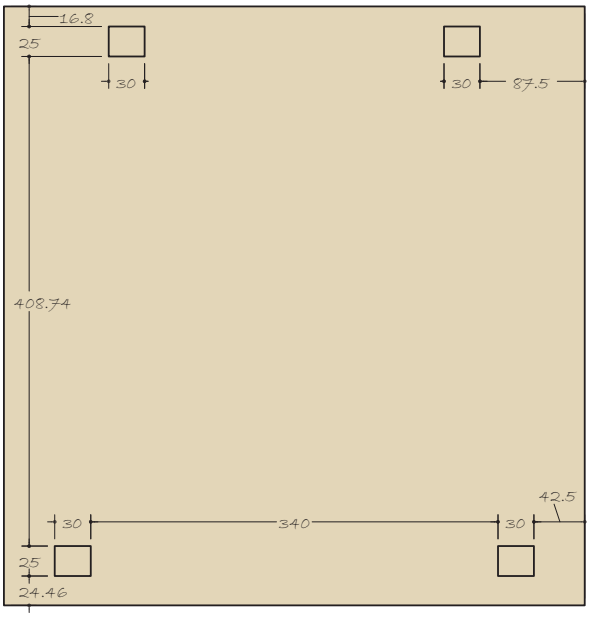


Plans of the footrests

Glueing the stool together

When glueing the final stool together, the fewer pieces to glue at once, the easier the task. Therefore, the process had to be done in stages. Firstly, the five middle beams of the seat were glued and clamped onto the two slats that hold the central seat together. The front legs were attached to the seat beams using Domino joints and liberally glued. It was important to make sure they were the correct beams as the end beams had a different design. The back legs were then glued to their adjoining beams by connecting the mortise and tenon joints. These three sections then had to be joined together while the footrests were in their correct position held in place using 10mm dowel. This was a tricky process that required many pairs of hands. A handy tool used, however, was a floor template, which was measured using the CAD drawings of the base of the stool. The template showed where the feet of the stool should sit and had pieces of scrap pine drilled around these areas to hold the legs in place. This meant that once the stool was put together it would not move or skew out of place.

Glueing the central seat



The floor template

Finishing

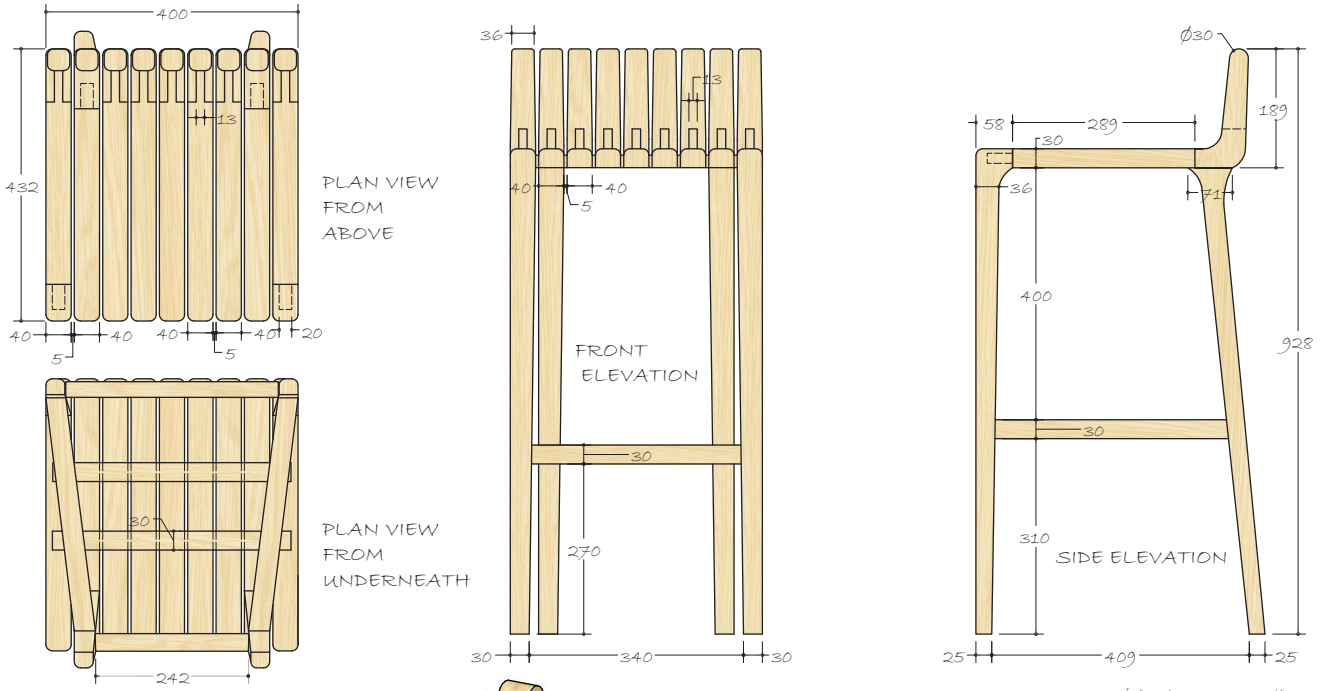
The stool was left over night to allow the glue to dry and the clamps were removed in the morning. A lot of hand sanding was done before glueing as the pieces, being separate, were easier to handle. However, final sanding was done with finer glass paper to create a smooth finish with no sharp edges. An electric hand sander was used to smooth the gradient on the seat contour especially on the two outside beams as they did not have a contour cut to begin with on the bandsaw. Once the wood was smooth and all imperfections removed, the finish was applied. In this case it was natural beeswax to enhance the oak grain without changing its colour or texture, this worked especially well on the finger joints.

Beeswax gave an excellent finish

Leaving a rectangle around the finger joint area

A large rectangle was left around the curve of both finger joint pieces for a couple of reasons. Firstly, it was easier to match up a finger joint to straight edges rather than curved ones. Secondly, it gave a larger surface area for clamping once the glue was applied, meaning more pressure could be put on the interlocking pieces to ensure they stayed together and glued firm. Although more waste material was produced, it was worth it to make sure the seven curves were as identical as possible and therefore lined up accurately. F&C

The extra waste made it easier to get identical curves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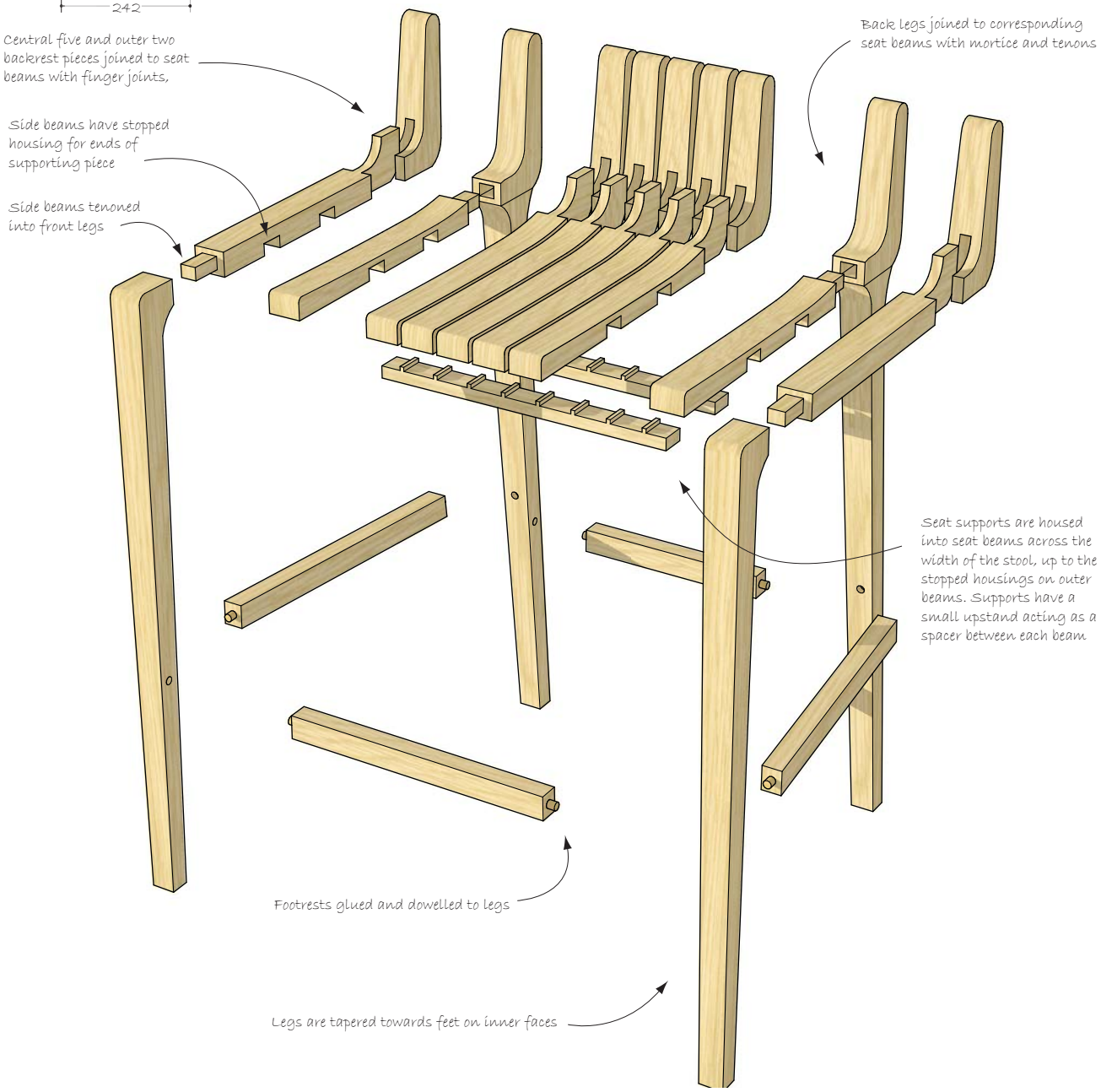
Central five and outer two backrest pieces joined to seat beams with finger joints,
Side beams have stopped housing for ends of supporting piece
Side beams tenoned into front legs
Back legs joined to corresponding seat beams with mortice and tenons
Seat supports are housed into seat beams across the width of the stool, up to the stopped housings on outer beams. Supports have a small upstand acting as a spacer between each beam
Footrests glued and dowelled to legs
Legs are tapered towards feet on inner faces

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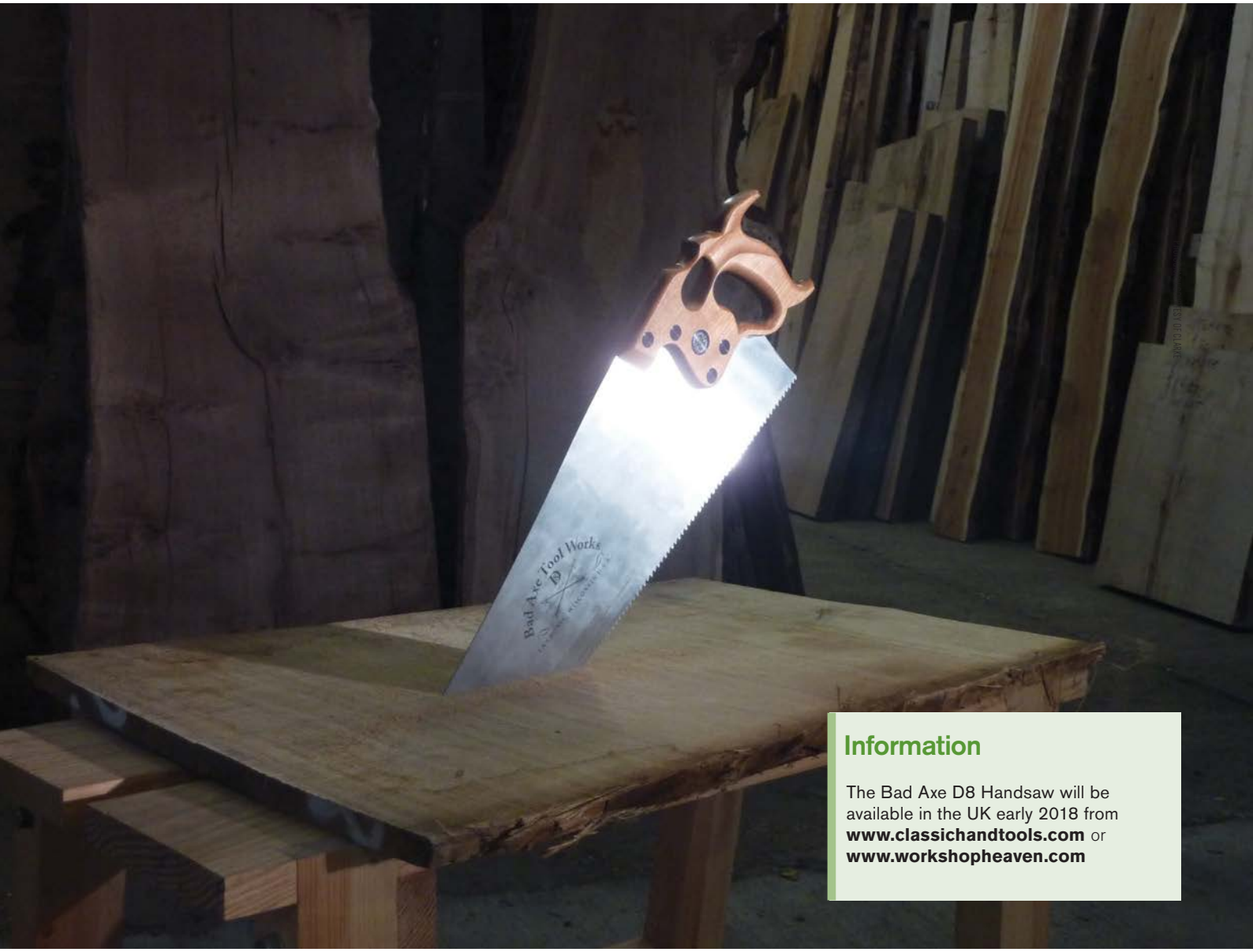
Bad Axe D8 Handsaw

When it comes to handsaws there's one name that stands head and shoulders above the competition; Henry Disston. Derek Jones takes a look at a contemporary version of an old classic to see if things can be made like they used to



PHOTOGRAPHS BY DEREK JONES/GMC PUBLICATIONS

Information

The Bad Axe D8 Handsaw will be available in the UK early 2018 from **www.classichandtools.com** or **www.workshopheaven.com**

Nothing, I'm telling you, nothing comes remotely close to the joy of using a brand-new saw for the first time. OK perhaps a new Ferrari but unless it's a California it's pretty useless down at the timber yard. I'm referring of course to the latest saws from Bad Axe Tool Works that are based more or less on the classic Henry Disston D8. It's no understatement to suggest that throughout the 19th century the original D8s had a hand in building the entire infrastructure of the United States. In a world without corded tools let alone cordless ones, second only perhaps to a tape measure, the D8 was the essential site tool. And though it may not have been the best saw on the market, it was undoubtedly the best-selling and up there with the Colt 45 and Model T Ford as icons of unprecedented industrial achievement.

By the end of the 1800s saw manufacturing had reached its peak on both sides of the Atlantic. The techniques required for producing a range of premium steels suitable for making saws were common knowledge, and the finer points of setting and sharpening them were no great secret either. But time and technology wait for no man and in the space of two short generations two centuries worth of knowledge was eventually replaced, forgotten or simply no longer in demand. However, intelligent design and exceptional craftsmanship are qualities that endure and the name Henry Disston remains as a benchmark for some of the finest saws ever made. Fitting then that Mark Harrell should look to the great man himself for inspiration to expand his catalogue.

What makes a good saw

Let's look first of all at the features that make a good handsaw; namely plate thickness, toothline consistency and ergonomics. In the process of sawing it's not uncommon to generate sufficient heat at the cutting edge to effect how the saw behaves. With metal, when there's heat involved you can pretty much guarantee expansion and with that comes a certain amount of distortion; both unwelcome features in a handsaw as they eventually combine to jamb the saw in its tracks. So as neither is impossible to avoid completely the trick is to find a way to reduce one and in so doing mitigate the other. The saw maker will do this in two ways. The first and cheapest option is to create a 'set' on the teeth that cut a kerf much wider than the thickness of the plate so the saw doesn't rub against the inside walls of the kerf. The downside with this is that the saw is able to wander freely in the kerf and even off course. The second and much harder to do is to remove a tiny amount of material from the blade so that it becomes fractionally thinner as it gets deeper in the kerf. The key word here is fractionally because we're talking about minute amounts of material.

To understand this process a little better imagine a ribbon of saw plate material perhaps 1.5mm thick. Draw a line from the top left corner to the bottom right one. Now remove a consistent and equal amount of material from both faces of the plate from the top edge down to the line. The result is a graduating taper. Sheffield's finest saw makers in the 18th century achieved almost super-human levels of dexterity that enabled them to do this by hand with grinding wheels. By the mid 19th century and with the onset of mass production, machines had taken over. The knowledge was still there but the skill to accomplish it by hand was lost.

The 9tpi crosscut will charge through wide boards


The Simmonds let in pattern has the sawplate set into the handle


A thumb grip is an optional extra at no extra cost

Not on the high street

Today if you want to buy a saw with that level of precision you won't find one on the high street. In fact until a couple of years ago you wouldn't find one at all. But as we're becoming re-acquainted with our hand tool heritage some fine examples are available. The most recent being the Bad Axe D8s. Like all Bad Axe saws these are almost infinitely customisable if you want to supply your own piece of timber for the handle and have it sized, but off the peg American hickory is what you'll get. Maple, walnut and cherry are also options. The Bad Axe D8 handles are a hybrid of the traditional 1887-1896 Disston-pattern closed handle and the pre 1928 Simonds let-in mounting pattern. You can't exactly ignore the thumb-hole grip that's available on both rip and crosscut versions of the saw either. This feature was introduced to rip saws to give the user more purchase and presumably a sawing advantage by interlocking thumbs with fingers through the hole and back again like a boa constrictor. Call me an old cynic if you like but I've got my reservations as to whether this really makes a lot of difference. Let's not forget that in the past tool makers were some of the most debauched marketeers that ever existed. Have a look in your tool chest if you don't believe me. It could be that I don't rip the equivalent of a half-marathon in timber every day to make an informed opinion. Either way, Bad Axe will add this detail to either saw and even for left-handed woodworkers on request.

What's far less subjective is the business end of the saw and by that I mean the toothline and geometry of the teeth. Bad Axe offer the saws in two lengths, 24 and 26in with a choice of rip or crosscut. The configuration and length are interchangeable with an uplift of $20 (from $375) for the 26in. The shorter plate is designed for lighter work with 9ppi for crosscut and 6ppi for rip. The longer plate has 8ppi for the crosscut and 5.5ppi for the rip. Like any Bad Axe saw I've used these both operate with the minimum of user interference, the most common cause of inaccurate sawing. For the saw geeks out there you'll be wanting to know about the steel and the taper. The plates are hammer tensioned 1095 Spring steel with a Rockwell hardness of 49-52 ground from .04 at the toothline up to .028 at the spine on the heel end, and .035 at the toe end. Achieving this without loss of temper to the steel has taken three years to perfect. The result is a rigid plate able to withstand the forces required to chomp through hard wood with relative ease. For soft wood users you can request more set to the teeth.

Verdict

The bottom line is these saws don't come cheap and incidentally neither do other ones similarly placed in the market, so what do you get for your money? Well, to answer that you need to do some work first of all with a plastic handled hard point saw from the builder's merchants. These saws tend to be fast cutting and versatile in most materials but start to struggle when the going gets a little heavy mainly because they're very light. The Bad Axe D8s are also fast cutting but handle the thick stuff a lot better because they're heavier and the force you put in is transferred more efficiently to the toothline. When a hard point saw loses its edge it's only good for playing tunes on whereas a premium saw can be sharpened dozens maybe even a hundred times. Is it a fair comparison? Probably not but in years to come when your D8 is like an extension of your arm and a pleasure to use you can walk past the cardboard container of pink and purple handled cheepos safe in the knowledge that you're better than that. And why? Because you're worth it of course F&C


Still an essential piece of kit in the 21st century

The plane and the ornate: the making of a European tradition

John Adamson shares his guide to collecting decorated planes

PHOTOGRAPH COURTESY OF THE DANIEL BOUCARD COLLECTION

This 4in luthier's plane in boxwood was made in France and has a tote in the shape of a grinning lizard's head

Lizard heads for totes; sea-monsters for handles; human figures reclining along the tops of stocks: these are just some of the startling features we can find carved on some early handmade wooden planes within certain Western cultures. Other early wooden planes may have their surfaces blazoned with symbols, others embellished with swirls, notches or other abstract adornment. Antique planes made out of other materials may likewise have decoration: on a metallic plane it might be an intricate pattern etched into the surface; on a bone plane there might be a scrimshaw drawing or two.

Form and function

From the prettiness of the beech flecking on a stock to the depth of colour in a rosewood infill; from the elegant shaping of threads on the wooden stems of a plough plane to the deftness in the dovetailing of the sole of a metal jointer, surely a plane, you might argue, has enough design qualities to please the eye of the worker or even the collector? Planes are for constant use at the workbench. Why would a tool-maker have wanted to add ornamental features to them, features that contributed nothing to their primary function and at times may even have made them less functional?

Between the woodworker and the material being worked there is a never-ending dialogue in which the woodworking tool is the mode of communication. This has nothing to do with the chatter of a poorly adjusted plane iron, but it has much to do, for example, with the cadenced utterances of a plane in the hands of a craftsman. It is here that the language of function is paramount, and both worker and collector can experience true delight in witnessing the extent to which the form of the tool has been determined by function – and, on many

PHOTOGRAPH COURTESY OF THE DANIEL BOUCARD COLLECTION

The tote on this 8¾in 19th-century French smoother from the Haute-Loire is in the shape of a woman's head with her hair streaming back, almost foreshadowing the *Victory* radiator-cap mascot by René Lalique of 1928

occasions, in beholding something that is beautiful as if by accident.

Hence the huge appeal to many woodworkers and collectors of the precision engineering of, say, a Norris plane. Its design features are as streamlined as those of the bows of an ocean liner slicing through the waves, yet it is astonishingly straightforward in aspect – and can be stunningly stylish too. We can see that all the design energy has been channelled into making a tool that aspires to the heights of usefulness and ergonomic perfection. In short, before us is a plane that befits its purpose remarkably well, one that was made by its makers to the best of their ability.

In the English plane-making tradition it seems that, broadly speaking, it has been ever thus. Functionality has been the enduring primary concern as well as muse in an indefatigable quest for technical advancement. Ultimately, the driving force behind making better tools has been to yield greater efficiency in the workshop. America's approach to plane-making went down a similar dynamic path with a comparable degree of pragmatism.

In late 19th-century America, there was, however, a momentary predilection for cast low-relief foliate decoration on metallic planes. Could this unexpected use of ornament give us a clue as to what might lie behind the time-honoured, predominantly continental-European custom for making planes (and other hand tools) that are decorated in some way? Of course, it should not be forgotten that this was a tradition running alongside the continental manufacturing of unadorned planes, which followed a trajectory of technical progress and inventiveness as impressive as that in the Anglo-Saxon world. This ran from the simplicity of design, say, of the wooden long planes described by Félibien, one of the earliest chroniclers of tools in the Western tradition, in his book *Principes de l'architecture* of 1676, to the mechanical sophistication, say, of metallic planes by Ignace Chardoillet in Alsace or Johann Weiss & Sohn in Vienna.

The parallel course of plane manufacture by hand, and especially those done in the highly decorated tradition, may perhaps have been an ongoing reaction against the tide of technological change. Increasing use of automation and of labour-saving devices may have been seen less as an advantage and more as a threat; indeed, one that might lower the standards of workmanship and jeopardise craftsmanship itself.

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

In his book *Woodworking Tools*, Philip Walker suggests this late 16th-century German smoothing plane of 5½in in length is one of a large series of similarly decorated tools probably made for royal or aristocratic amateurs. In a wonderful display of the metalworker's consummate skill, the etched foliate design is to be found everywhere on the stock, even on the sole and forward tote

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Although heavily worn, the scrimshaw drawings on this early miniature block plane in horn, possibly made in Italy or Germany, are still just legible. One side of the stock depicts a castellated gatehouse (as shown), and the other a hunting-piece with a horse and rider and fleeing stag

Ornament adds nothing to the usefulness of the object on which it is placed. Whether or not it renders that object more aesthetically pleasing, it can add layers of meaning. Reverting to that short-lived passion for ornament among American tool-makers, let us look for a minute at a cast-iron fillister plane, one for instance from the Stanley works, adorned with foliate relief on its stock and fence. We can easily detect here what is undoubtedly a tinge of triumphancy. The firm was entitled to be exultant. Given the plane's date, this mass-produced casting of what is both an effective and decorative tool was patently a breakthrough in technological prowess. But at the same time, by employing intricate ornament, the plane harks back to the days before mass-production when as a matter of course precious goods were often ornate and craftsmen made their own tools, sometimes personalising them with decoration of some kind. And this triumphancy in the manufacturer is instilled in the user of the tool as an intangible sense of pride, where the adornment enhances the very specialness of the plane and makes it tantamount to a work of art. Admittedly, as a selling ploy all this works at a subconscious level, but it is clever nonetheless.

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

This skew-mouth fillister by Stanley Rule & Level Co. of New Britain, Connecticut, in japanned and polished cast iron with rosewood handle, epitomises the short-lived passion among American plane-makers for elaborate foliate decoration in the late 19th century

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

This typical Dutch smoothing plane (*blokschaaf*) in beech, dated 1779, bears the unknown maker's mark of BL. Although the whirligig pattern on the wedge and the ornate mouth were carved by hand, the decoration is a feature of a plane almost certainly made commercially and not the whim of a craftsman who made it for his own use

Going back a further hundred years, say, to late 18th-century Amsterdam or Rotterdam, commercially produced planes, no doubt turned out on some rudimentary in-line process of manufacture, were, as a matter of course, gracefully carved around the escapement and on the top of the toe in accordance with a few standardised patterns. Again, this ornamentation recalls the best in craftsman-made planes of former times, and by association of ideas the same aspirations for quality are implied.

Early decorated tools

So far, we have only looked at instances of commercially produced planes whose designs cunningly recall the virtues of bygone handcraftsmanship. Taking up one of the challenges facing collectors and tool historians, let us examine the early hand-made decorated tools themselves. Can we determine what other languages they spoke to their makers and their owners – and might also speak to us?

Out of the usefulness of hand planes I believe there grew in the minds of their makers another idea of overarching significance. In good hands, a well-wrought plane was perceived as a device by means of which astonishing results could be achieved, and thus one which had early on attained special status in the craftsman's mind. It had, figuratively speaking, become almost talismanic.

It is here, I think, that an important part was played by decoration. By that I mean both the ornamental shaping of elements of a plane and the application of patterns to its surface. To my mind, these 'embellishments' are bound up in some way with the notion of the plane as talismanic. Central to the woodworker's livelihood, the plane had for some workers to be personalised; it had to reflect some aspect of its owner, perhaps his standing in the workshop or community or within his guild, or allude in some way to his work as craftsman.

Many, if not most, European decorated planes that come on the market were made by the craftsmen who used them, and a good deal of them were made in Austria, France, Germany, Scandinavia and Switzerland.

Rococo and classical features come together on this 28¾in trying-plane, dated 1780. Thought to be of French origin, the plane has been carved from a single block of evergreen or holm oak. Its workmanship verges on the artistic in its scrolled tote, in the sea-monster rear grip, as well as in the scalloping and ogees around the throat and mouth

PHOTOGRAPHS BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

The dog's head carving on the forward tote lends charm to this 18th-century German smoothing plane (*Schlichthobel*) in holm oak, with 6⅝in sole. The cast-steel iron is stamped 'IOH*GOTTL* / RM / REMS [...] / GUSSTAHL [cast steel]', with part of the name of what is likely to be the town of Remscheid rusted away

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

This 19th-century cast-iron smoothing plane, with hardwood infill ending in a tote in the shape of a bearded man's head, is one of the relatively few early decorated English planes known

PHOTOGRAPH COURTESY OF THE DANIEL BOUCARD COLLECTION

This French wheelwright's plane in holm oak of 7¾in in length for shaving spokes has a dog's head tote with triple studded collar. On one side of the plane is gouged a wheel beside a crossed axe and adze, and on the other (shown here) a wheel beside the square-and-compass symbol of the Compagnons

PHOTOGRAPH COURTESY OF THE DANIEL BOUCARD COLLECTION

Few were made in England, but the restrained use of a pierced shield and inverted heart on the cap irons of some Scottish infill planes in the late 19th and early 20th centuries is a recurrent characteristic feature, though by then many planes were being made on a production line by specialised plane-makers for sale to craftsmen and not by the craftsmen themselves.

Guilds grew up in many European countries to regulate various trades and provide a degree of protection to craftsmen. Among the most successful and influential was the French *compagnonnage* or system of guilds of highly skilled craftsmen whose members, the Compagnons, long made use of a range of pictorial symbols each with a set meaning. Some of these, like the interlocking square and compasses can be seen on wooden planes of all periods.

Other symbols, such as IHS or a heart surmounted by a small cross, recur on planes. These have strong Christian connotations. Whether they were used to denote the strength of the craftsman's own faith or reflected his belief in divine inspiration in the creative process it is hard to say.

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

In a show of thrift as much as of pride, the craftsman who made this 25¾in trying-plane from a solid block (or *monoxyle* as the French call it) of reject fruitwood, was able to indulge his carving skills: gouge cuts, helices, a heart surmounted with a cross within a sunburst, whirligig patterns, the tree of life and a striking button in the shape of a flower

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

The sides of this 25in 19th-century Austrian trying-plane are adorned with a leaf-and-scroll frieze in shallow relief, while the top of the stock is engraved with four carved dog roses (now very worn). The plane iron is adjusted vertically by a threaded bolt in two nuts affixed to a cap iron

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

This elegant 7 1/16in compass plane with typical punchwork decoration of Austria or southern Germany has two rows of V-gouge marks along the sides above unusual chamfering along its length

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

With its scrolled grips, petal and foliate carving and ogee base, this router (*Grundhobel*) in walnut, has the monumentality of southern German baroque decoration, although it is a mere 5⅞in tall

Some patterns are abstract and may only echo the prevailing vernacular vocabulary of ornament and style belonging to the region or era in which the craftsman worked. This would certainly seem to be the case for some planes made in the wooded mountain regions of Austria, France, Germany and Switzerland.

The specific meaning of carvings found on some planes is hard to fathom or at best can only be guesswork. Anthropomorphic and zoomorphic carving is often highly subjective if not idiosyncratic, though some carvings can have mythological or Biblical allusions and thereby convey known meanings of a universal nature. Even then we cannot rule out any personal intentions the plane-maker might also have had.

By and large, the carvings found on early decorated planes enter the realms of folk art, frequently betraying the fact that they were the work of untrained sculptors. To our eyes, the carving is sometimes in poor taste, if not uncouth, and could hardly be said to beautify the plane on which it is found. Clearly, its purpose was not always aesthetic. Be that as it may, the fine cherry-wood long plane from Italy with its forward tote in the shape of the bust of a man wearing a ruff and its toe in that of a ram's head would seem to be the work of a skilled and well-trained sculptor. It is almost as though the plane were a piece of fine furniture.

If one of the defining constituents of civilisation is craftsmanship then one of the indispensable voices of craftsmanship in wood is the hand plane. The language of its function is enough for us to understand the special status bestowed on it by woodworkers down the ages. But planes adorned with carvings and designs say more: they speak for themselves not just of the craftsman's pride in his work but of his reverence for his stock-in-trade. F&C

PHOTOGRAPHS BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

There is irony in the iconography of this 10½in-wide cooper's croze plough plane of Austrian origin in hornbeam and fruitwood. Neptune, the god of the sea, wielding his trident and clutching a fish, has been carved in low relief on a woodworking tool made in a land-locked land. This compass plough plane would have been used to cut the groove (croze) at the ends of the staves to take the head of a cask. RIGHT: View showing the ornate escapement

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Of French origin, this 23¼in late 18th-century trying-plane (*varlope*) is cut from a length of knotted boxwood that would have been of little use for furniture-making. The female nude figure is carved in high relief and the rear grip assumes the form of the elongated back of a wolf-hound

PHOTOGRAPHS COURTESY OF THE DANIEL BOUCARD COLLECTION

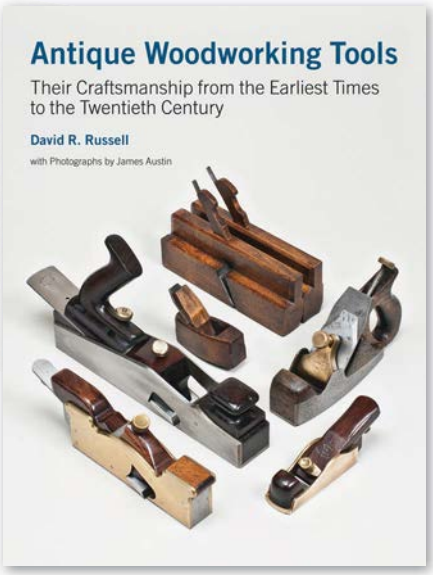
Clearly the work of a skilled carver, this 18th-century Italian plane in cherry-wood stretches to 47¼in in length. Both the ram's head at the toe and tote in the shape of a bust figure wearing a neck ruff have been finely executed. Between the iron and the unusual rear grip the IHS monogram with the three nails of the Cross beneath has been carved on the stock INSET: Detail of the carved ram's head forming the toe of the plane

Tips for collectors

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

While this French twin-handle smoothing plane (or *galère*) in stained fruitwood is mid-19th century in style, it shows remarkably little sign of wear. The carving of the gentleman's head towards the toe and of the shield with a cross below a mantle surmounted with a fleur-de-lis is well done, but is it truly of the period or a more recent creation? The toe has been crudely distressed with hammer marks, whereas it would normally be the heel that is tapped to release the plane iron

1 Watch out for later carving added as an 'enhancement' of its aesthetic appeal and so of its perceived worth
2 Bear in mind that decoration is not always applied for aesthetic purposes but nevertheless might be of interest on the grounds of its symbolism
3 Beware of over-cleaning; there is history in the patina
4 Jonathan Green-Plumb gives the background to and a thorough analysis of a range of decorated tools from the woodworking and allied trades in his book *Early European Tools* (Stobart Davies Ltd, 2012, ISBN 978-0-85442-117-6)



If you're enjoying our series on tool collecting you will find more examples of the items featured so far in *Antique Woodworking Tools: Their Craftsmanship from the Earliest Times to the Twentieth Century* (ISBN 978-1-898565-05-5). For more information see www.antiquewoodworkingtools.co.uk

UNDER THE HAMMER:

The Mid-C

We look at works by Swiss designer Pierre Jeanneret

The Mid-C: Contemporary Art + Design sale was held in Bonhams' auction rooms in Los Angeles. The sale included examples of fine art from the 20th century as well as mid-century glassware and furniture, including several pieces by Pierre Jeanneret.

Pierre Jeanneret (1896–1967) was a Swiss architect and furniture designer. For around 20 years he collaborated with his cousin, Charles Edouard Jeanneret, better known as Le Corbusier. One of their joint projects was the city of Chandigarh, which was built as the new capital of the Punjab following the partition of India in 1947. Jeanneret was responsible for the design of the city's mass housing, as well as much of the design of the Panjab University. After the project was completed, Jeanneret stayed on in the city and was named its Chief Architect. His former home is now a museum dedicated to his work.

PHOTOGRAPHS COURTESY OF BONHAMS

£9406

Pair of teak and leather Committee Chairs made ca. 1953–54 by Jeanneret for the High Court in Chandigarh, India. The High Court is based within the Chandigarh Capitol Complex which was designed by Le Corbusier in the early 1950s

£3292

Pair of teak high stools made ca. 1965–66 made by Jeanneret for the Scientific Block of Panjab University in Chandigarh

£6584

Office Table made ca. 1957–58 by Jeanneret. The table is made from sissoo, cedar and black leather

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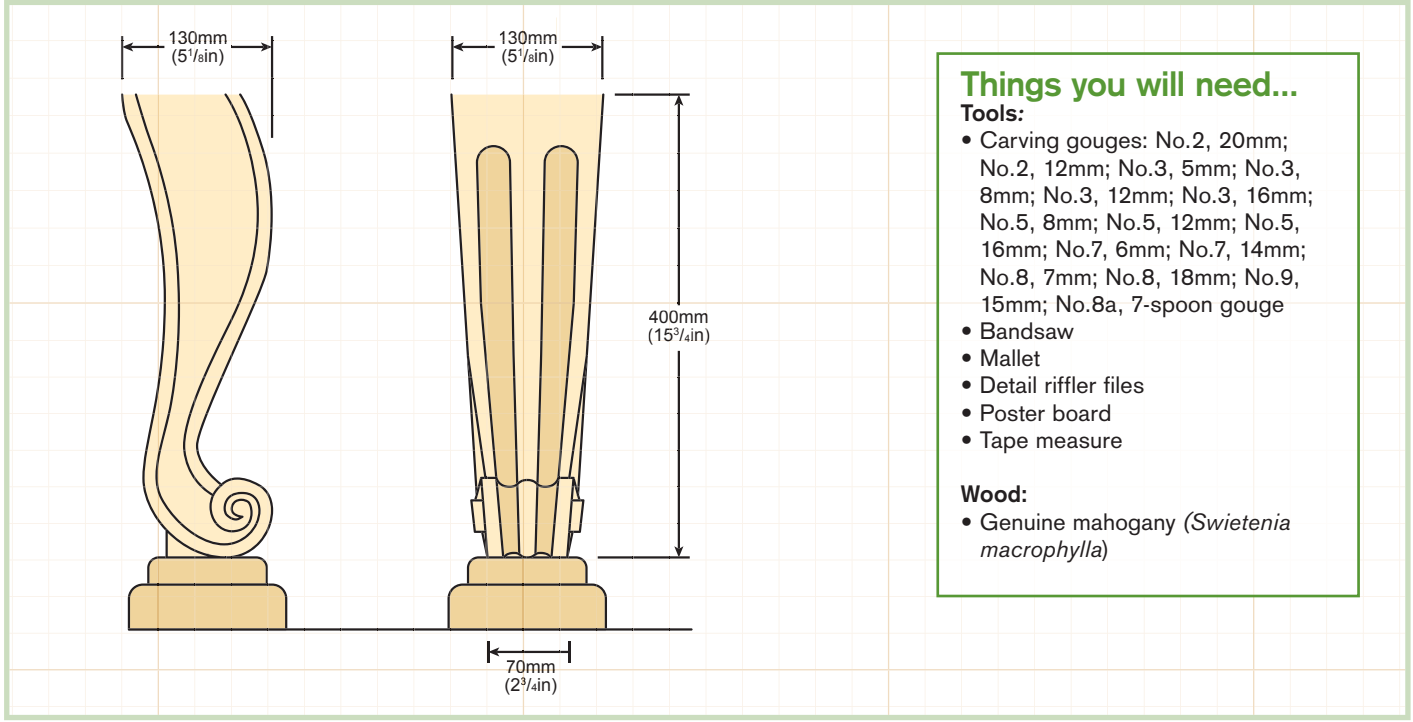
Carving scrolls

Dennis Zongker explains how to carve decorative scrolls on table legs

Carving scrolls into furniture is a technique that has been around for many centuries because of its simplistic beauty and accurate clean lines blending together several different radiuses. Scrolls can be incorporated into any style of furniture from a complicated baroque chair to a simple, modern-style table.

When designing this end table I wanted the upper section of the legs to resemble a griffin, a mythical creature which is part lion and part eagle. On the lower section of the leg I wanted a simple form to complement and balance the entire leg.

PHOTOGRAPHS BY DENNIS ZONGKER



Things you will need...

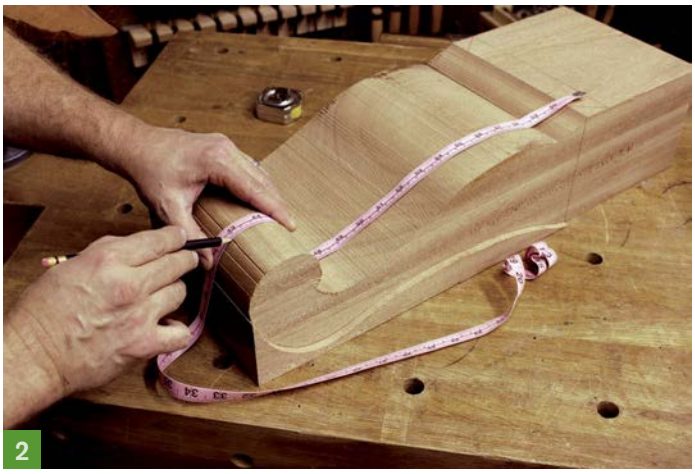
Tools:

- Carving gouges: No.2, 20mm; No.2, 12mm; No.3, 5mm; No.3, 8mm; No.3, 12mm; No.3, 16mm; No.5, 8mm; No.5, 12mm; No.5, 16mm; No.7, 6mm; No.7, 14mm; No.8, 7mm; No.8, 18mm; No.9, 15mm; No.8a, 7-spoon gouge
- Bandsaw
- Mallet
- Detail riffler files
- Poster board
- Tape measure

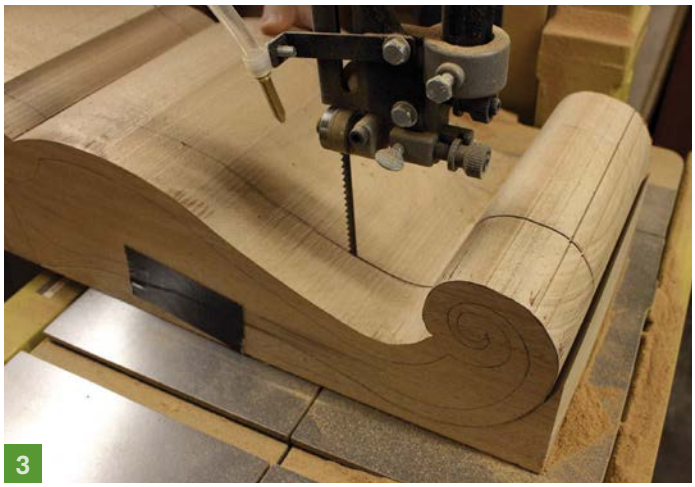
Wood:

- Genuine mahogany *(Swietenia macrophylla)*

After gluing up the block of wood, make a drawing template out of poster board, which is a thicker piece of paper for the pencil to follow when transferring it to the wood. Using a template is an important step as it will ensure that all four table legs will match up to each other. Using a bandsaw, cut out the side profile by following the outside edge of your pencil line.

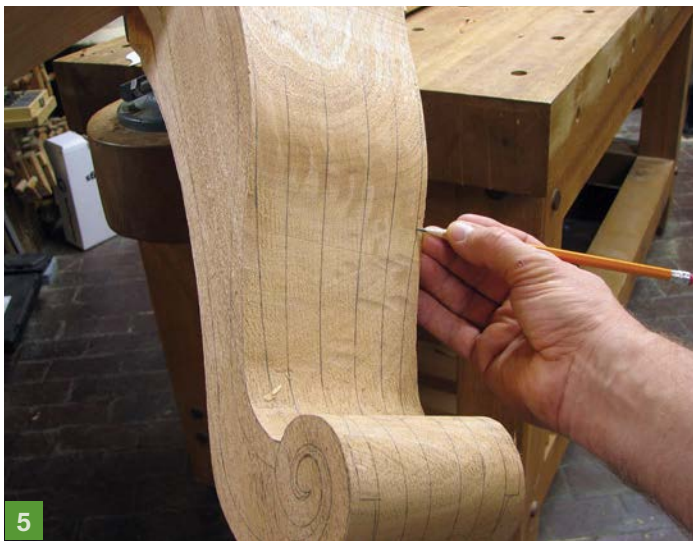


Once the side profile has been cut out place the back cutout piece onto your bench, then sit the table leg on top in order to draw in the two outside edges. Use a seamstress tape measure and pencil to make sure that both sides are equal distance with the lower scrolled foot smaller in width than the upper section where the flutes end.



Then tape the cut off bottom to the leg so that it rests flat and steady while you are cutting. Cut the taper off the front on both sides with a bandsaw.

Next, use the drawing template to redraw in the side profile carving lines.

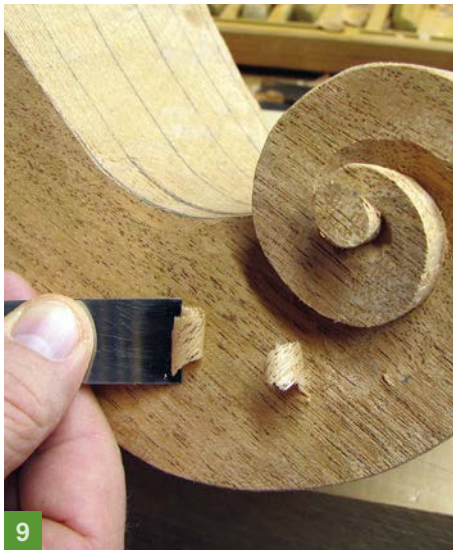


For drawing in the front flutes I use a pencil and freehand the carving lines. Follow the same angle on the outside edge of the leg. Make sure that the lower section of the foot has tighter, closer lines, then gradually draw it bigger towards the upper section.

Starting at the centre of the scroll, stab cut with your carving knives at a straight 90° angle and work your way to the end of the scroll using a variety of different carving knives. Make sure you use a mallet and tap your knife lightly approximately 455mm deep into the wood.

Use a No.3, 12mm fishtail carving knife to relief cut up to the stab cut. Keep repeating these two steps, 'stab and relief' cutting, leaving the centre of the scroll as the highest point and carving deeper as you move outwards around the scroll.

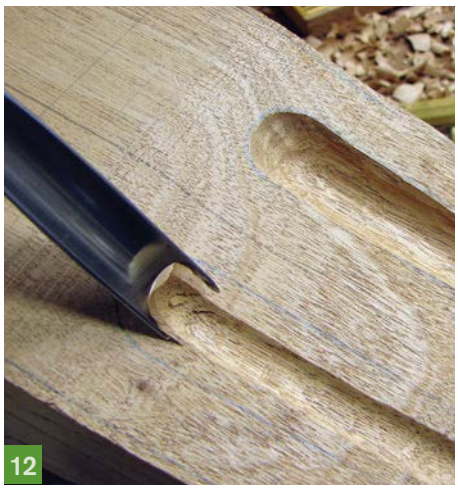
Match up your carving knives to the scroll. Carve in a reveal around the edge that will blend with the side of the scroll.



Use a No.2, 20mm carving gouge to flatten up to the end of the scroll.

Use a No.8, 18mm carving gouge to carve the flutes into the face of the leg and lower scroll section. Follow the pencil lines and go deeper into the flutes towards the upper section of the leg and gradually carve shallower towards the lower scroll.

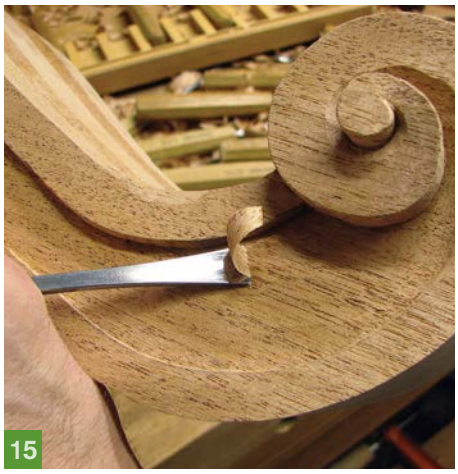
To carve into the smaller inside flutes on top of the scroll, use a No.8a/7 spoon gouge.



Use a No.9, 15mm gouge for carving the deep and wide section at the very top of the flutes. When carving this wider area you will need to slowly shave and blend the thinner mid-section of the flutes together.

On both sides of the table leg there is a centre recess with 11mm wide edges that follow the front and back edges up to the scroll and follow into the scroll. The depth of the recess is approximately 4.75mm deep. Start off by stab cutting the border lines using three different gouges – No.2, 35mm, No.2, 20mm and No.2, 12mm – and use a mallet to cut into the wood around 3mm deep.

Use No.2, 20mm and No.3, 20mm gouges to remove the centre recessed wood. The goal is to have a flat recess, so the flatter the gouge the better the results.



Repeat steps 13 and 14 to get the right depth of 4.75mm. Use a No.3, 12mm gouge to clean and flatten next to the scroll.

The last couple of carving steps are to radius the corners of the flutes to blend with the other edges. Use No.5, 8mm, No.3, 8mm, No.5, 12mm and No.3, 12mm gouges upside down at different areas to arch the edges to where they will flow together.

Around the tighter radius of the scroll, use a No.5, 12mm to blend the concave and convex arches so that they also flow together.

Use an assortment of detail riffler files to clean up all the carving gouge marks. This is a great way to smooth the carving and also gives the project crisper details.

After all the carving marks are cleaned up, sand the carving with a 150-grit sponge block. I only sand enough to smooth and blend the wood evenly; this way I don't remove any detail but leave the carving looking clean and crisp. F&C

Tricks of the trade... Roubo bench extension

Ramon Valdez has a solution for clamping longer boards

With the ever-growing popularity of the Roubo bench, I thought I'd share a new addition that I made for mine recently. My bench is about 84in long and the clamping capacity is about 6ft. Occasionally, I need to clamp longer boards. Funny thing is, no matter how long the clamping capacity is, it seems to end up just short of those projects with longer timber! I did, however, easily add 18 more inches by building my 'Roubo bench extension'. Here's my solution.

I made a 'block' of sorts that houses a few more bench-dog holes, or let's just call them dog houses! I used Baltic birch plywood for its stability and ease of use. This block or extension goes to the left side of my bench, in line with the existing bench dog holes and utilises the front vice to clamp it firmly in place.

To start, I used two layers of ½in Baltic plywood for the part that extends onto the front of the bench. These are 36in long and the width (height) matches my bench, which is 4in thick. These front pieces have two ¾in dowels protruding from the back side, but now I'm getting ahead of myself. More on the dowels a bit later. I used three more layers (two ¾in and one ½in) to create the space or distance from the front of the bench to the start of the bench dog holes. Incidentally, I cut all my parts a tad big, assembled the unit, then cut it to length and height (4in in my case)

Creating the dog houses was easy. I even got lucky with two layers of ½in plywood being equal (actually slightly larger) to the width of my bubinga (*Guibourtia demeusei*) bench dogs. As I was creating the space for the bench dog holes, I cut the cavities with a 2° angle to match the angle of the existing dog holes. This angle leans towards the end vice and helps with the holding power. These cavities were simple to make, since I was able to create the configuration as I stacked the layers, cutting the required angles, that would become the inside of the bench dog holes.

Then, I added one more layer of ¾in Baltic birch plywood on the back side of the new 'dog houses' to cap things off.

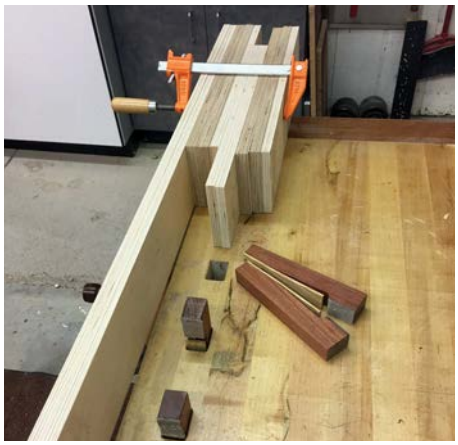
Once the 'block' of plywood was made, I cut it square and true at my sliding tablesaw,

PHOTOGRAPHS BY RAMON VALDEZ

eased the corners a bit and clamped it into place with the front vice, making sure to keep the top edge flush with the bench top and the 'block' tight to the end of the bench. Just for assurance, I used an additional clamp or two to ensure that it wouldn't move while the holes for the dowels were being drilled. Now was the time to drill the two ¾in holes for the dowels. I used the simple and very effective method of keeping my drill bit level by slipping an 'eye' bolt over the smooth part of the drill bit. Any slight deviation in height, will cause the eye bolt to travel, forwards or backwards, telegraphing the need to adjust your levelness. Of course, your bench should be dead level for this to work properly. I learned this trick from my dad years ago! These dowels help to easily index the extension block and the front vice will hold it securely in place. I used padauk for my dowels although I wished I had used bubinga to match my breadboard ends. I simply did not have any at the time, but of course, found some up in my loft after the build! Before glueing the dowels in place, I routed a small 'finger groove' or cove at the far, bottom right hand end of the block to make it easier to remove after use. In addition to glue, I also used a wedged tenon technique for securing the dowels just to tighten things up and add some more strength. Ease the corners of the dowels that will engage the holes… and also chamfer the edges of the holes in the front of the bench to make engaging the block into place that much easier.

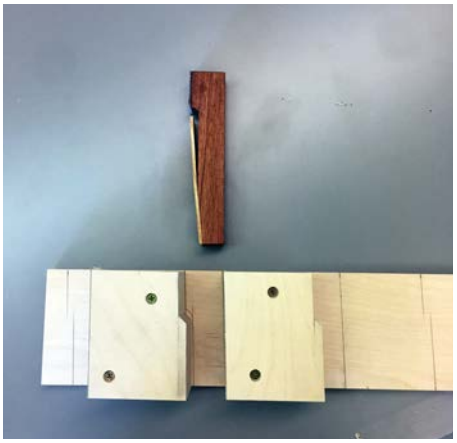
In use, I can quickly grab the extension (stored on my 'shop wall), line up the dowels and clamp it into place. This extension is not designed to take much downward pressure, although it does feel very solid. I suppose a person could make theirs even longer and perhaps add some sort of additional support leg. This bench extension was merely created to provide longer clamping options. You'll notice that the doghouses are in line with the existing ones in the bench.

I sanded the inside of the dog houses while it was being constructed and then did a bit of sanding on all the exterior surfaces. After a seal coat and then a couple of coats of conversion varnish to help prevent glue from sticking to the extension, and this project is ready to hold another project in place! F&C



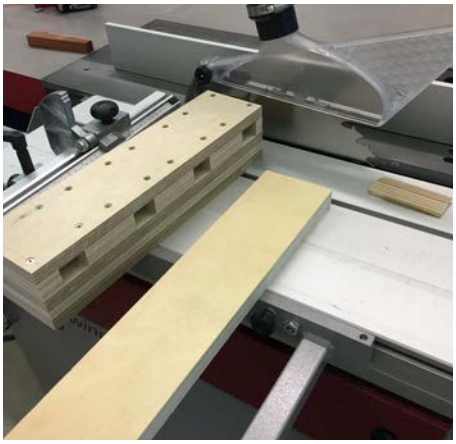
Matching the layers of ply to meet the dog hole position

A test pocket for the new bench dogs



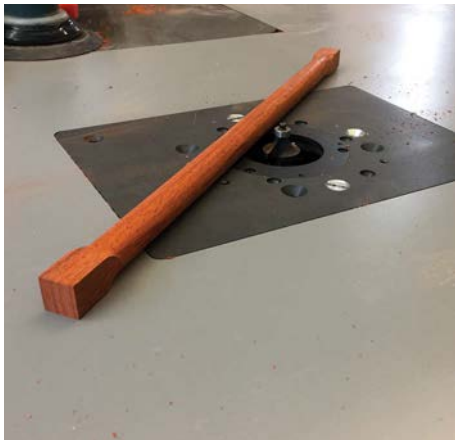
Plywood spacers attached to the back board

New dogs checked for size



Extension trimmed to length on the tablesaw

Drilling the location holes



Machining dowel on the router table

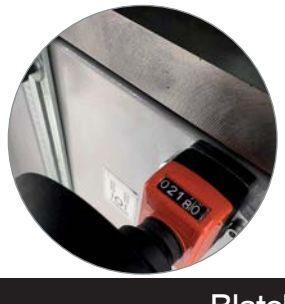
Dowels glued and wedged

The extension is a push fit attachment

scott+sargeant the machinery experts

C300

high performance combination woodworker



The C300 Universal Machine is the latest addition to the iTECH family. It has been designed to have industrial quality features combined in a size intended for the small professional workshop or home user.

This industrially rated machine features a panel scoring saw, sliding table with large support, surface planer, thicknesser and spindle moulder in one neat package.

The cast iron construction, accurate cross cut fence and superb build quality put this machine in a class of its own.

£4499
Inc VAT

Technical Specification:

Motors	3 x 2.0 hp
Planing width	300 mm
Thicknessing Depth	220 mm
Cutter Bock Diameter	70 mm
Depth of Saw Cut	80 mm
Sliding Carriage	1250 mm
Saw Blade Diamter	250 mm
Scoring Saw Blade	90 mm
Spindle Moulder Shaft	30 mm
Spindle Moulder Max Diameter	160 mm

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Kit & tools

Having trouble sourcing the right tool for the job? Here's a selection of new and essential equipment for the workshop

All sterling prices include VAT, correct at time of going to press

From £50.40

Eze Lap Diamond Sharpener

MINI TEST
Eze Lap diamond plates

I've been relying on a set of diamond plates for a majority of my sharpening needs for well over a year now and as things stand I can't see that changing any time soon. My primary set are a pair of dual-sided plates of 180/600 grit and 300/1000 grit with a 6000 grit Shapton Ceramic Glass Stone for a final touch up. OK so I'm not relying solely on diamonds but then not every sharp edge in the tool box requires the same level of attention. For convenience the Shaptons have a lot in common with diamond plates.

PHOTOGRAPHS BY DEREK JONES/GMC PUBLICATIONS LTD

Machine marks are replaced by an acceptable scratch pattern

Metal polish and a block of MDF will put a good shine on the surface

Create arcs as you go to burnish the sharp edge

They're thin (10mm) so easily transported and don't require a water bath as the same honing fluid can be used on both. An added bonus is that the diamond plates can also be used to flatten the ceramic.

Faced with the task of sharpening and maintaining upwards of 200 edge tools recently and with no grinding wheel on site, diamonds felt like the only option. I'm slowly working my way through the different brands and chose Eze Lap in this instance. They have a good range of plate sizes and are similarly priced to other makes. Their 8 x 3in Bench Stone plates come in a range of five grits: Extra Coarse (150 grit), Coarse (250 grit), Medium (400 grit), Fine (600 grit) and Super Fine (1200 grit). While a complete set would cover all bases, I passed on the Extra Coarse and just took the last four.

Not all chisels and planes are as ready to use out of the box as others and if the steel is good we certainly shouldn't see them as inferior, just a little slower to get started. The Stanley chisels are a good case in point and required their backs flattening. I've always found this to be an arduous task at the best of times but not so with the Eze Lap plates. The jump up from a coarse plate to the next one in this range is really well balanced and probably only took about five minutes. The eagle-eyed among you will notice there isn't a trace of mirror anywhere and I'm happy with that for what are essentially bench chisels. The same sequence of plates removed the results of a rather unfortunate nail strike just as quickly. Now I'm not suggesting that calling it a day at 1200 grit is adequate for your best chisels or your best work, but for a lot of procedures it is and I think it's helpful to differentiate between those that do and those that don't. To put a little sparkle on the secondary bevel you can use a good metal polishing paste like Autosol and drag the edge backwards across a piece of MDF wiggling from side to side.

Prices range from £50.40 for Super Fine to £97.80 for Extra Coarse.

From: www.ezelap.co.uk

Each plate comes with a leather wallet

SABRE-450 bandsaw

The SABRE range of bandsaws are the next evolutionary step from the highly regarded Record Power premium bandsaws. The SABRE-450 builds on this success with a range of new features in addition to being the largest ever bandsaw to bear the Record Power name. The 1500W output (2hp) motor drives the heavy cast-iron wheels with ample power to cope with the heaviest of cuts. The cam-action fence adjustment, spring-loaded guides, cam-action blade tension release and double-sided fence mount make the machine easy to set up and use. In addition, the SABRE-450 features an electromechanical braking system, making it ideal for use in educational environments. The resaw bar, which is easily attached to the fence, is included as standard. This is ideal when sizing long pieces of timber as the timber can be pivoted to compensate for grain variations, helping to achieve straighter cuts than would be otherwise possible.

From: www.recordpower.co.uk

Trend Air Stealth half mask

Trend has introduced a new compact and lightweight half-mask respirator with full P3 protection; suitable for protection from all woodworking nuisance dusts including MDF as well as other industrial dusts such as silica, glass fibre and also agricultural related dusts. The Air Stealth design incorporates easy-to-change flat filters that locate behind hinged access grilles, while the large filter area offers less breathing resistance in use to keep comfort levels maintained as you work. With the flat filter design, the mask offers superb all-round vision as you work making it ideal for high-volume dust-generating woodworking applications such as routing, sanding and woodturning. The mask can also be used with prescription or safety glasses and is designed with the exhalation vent mounted at the bottom of the mask to prevent fogging and misting as you breathe.

From: www.trend-uk.com

Note. The effects of a constantly evolving global market in raw materials and other resources mean that prices can change. Be patient with your supplier and please understand that the prices quoted here are correct at the time of going to press.

Irwin Quick-Grip Clamps

Kieran Binnie tests a range of medium and heavy duty clamps

Irwin Medium Duty One-Handed Bar Clamp/Spreaders are available in four lengths from 150–900mm. They have a throat capacity of 81mm and are capable of applying 136kg of pressure

ABOVE: Irwin Heavy Duty Bar Clamp/Spreaders are available in four lengths from 150–1250mm. They have a throat capacity of 92mm and are capable of applying 272kg of pressure

It is a truism that you can never have too many clamps, and having a variety of different clamp types is generally a worthwhile investment for when those unforeseen tricky clamping conundrums arise. Irwin's latest range of Quick-Grip medium and heavy-duty clamps offer an affordable way to increase the number of clamps in your workshop, and include some useful accessories to solve difficult clamping situations.

Specification

The solid feeling clamps have a capacity of 150mm and come in medium and heavy duty varieties offering clamping force of 136kg and 272kg respectively. The plastic body features one of the two clamping pads, along with a handle and two triggers. The first trigger advances the body along the clamp bar to grip the workpiece, while the second smaller trigger releases clamping force to quickly remove the clamp from the workpiece. The second clamping pad is fixed to the end of the clamp bar.

The range of accessories is likely to be a big draw for many users, and currently includes the following accessories, all of which can be purchased separately:

- Clamp coupler, allowing two medium duty clamps to be ganged together for increased capacity
- Deck clamp attachment for the medium duty clamps, designed to facilitate decking to be clamped while screwing or nailing to cross members
- Hold down jig, which converts medium or heavy duty clamps into a table clamp
- Corner pads attach to medium or heavy-duty clamps for easy clamping of 90° corners such as mitred frames.

In use

These clamps have a sturdiness to suggest that they will provide years of use, but are still light enough to wield one-handed. The use of a trigger mechanism to close the clamp encourages one-handed use, and consequently these are perfect for clamping tasks where you need to keep one hand free to hold or manipulate the workpiece. The trigger advances the clamping bar in a controlled yet rapid manner, and it is easy to clamp the work tight. Fitting the various accessories is similarly straightforward, and these really do add to the versatility of the clamps. In fact, the only gripe I have is that although the clamping pads are articulated to adjust to the surface of the work piece, they grip best on parallel surfaces and can slip if the surfaces are much out of true.

All in all, the Irwin Quick-Grip clamps are sensibly priced and offer a number of useful solutions to common clamping problems, particularly if you have the need for any of the accessories. In the nine months I have been using these clamps the one-handed operation has become a real lifesaver in tricky glue-ups, and the clamps have earned a lasting place in my workshop. F&C

PHOTOGRAPHS BY KIERAN BINNIE

Coupling kits are available for the Heavy and Medium duty clamps that allow you to extend the capacity by attaching two clamps together

The Corner Clamp accessory comes in handy for holding components together at 90°

Remove the soft jaws and swivel heads before attaching to the Decking Tool kit for work on deck building

Reversing the head turns the clamp into a spreader

The numbers

£24.34: Medium Duty Clamp
£29.21: Heavy Duty Clamp
From £7: Couplers
£7.18: Corner Clamp
£9.58: Deck Tool Kit
£8.86: Hold-Down Jig

From: www.irwin.co.uk

Remove the head, drop the bar through a suitable dog hole and attach the Hold Down Jig accessory to create a good alternative to a holdfast. You can fit multiple jigs to your bench for more options

Out & about:
West Dean College and Gardens

This month we visit the West Sussex creative arts college and its historic gardens

West Dean College in West Sussex is internationally recognised for its teaching of conservation and creative arts. It also has one of the greatest restored gardens open to the public. A unique place to study, visit or stay, it is a centre of excellence, creativity and tranquillity. Underpinning it all is the vision of founder and Surrealist patron Edward James, connecting today's students and visitors with a rich heritage of arts, craft and creative possibility.

History

There has been a house at West Dean for over 900 years, the manor house there was mentioned in the Domesday Book in 1086. The house was developed and rebuilt over the centuries by its various owners and in 1891 the house and estate were bought the James family. Architects Ernest George and Harold Peto were commissioned to work on an extensive remodelling of the house and garden.

Edward James (1907–84) inherited the estate in 1912. He was a poet, art collector and a patron of surrealist artists such as Dali and Margritte. He gave studio space at West Dean and his London home to various artists and had a vision for turning West Dean into an educational institution. In 1964 he established the Edward James Foundation, a charitable educational trust, to fulfil his desire to nurture music, traditional crafts and the visual arts. West Dean College was opened in 1971 as a centre for education and training in conservation and in the visual and applied arts.

Restoration of the gardens began after the Great Storm of 1987. The gardens had been in decline prior to this and were devastated by the storm, when over 60 mature trees were uprooted. The gardens have now been brought into the 21st century. The 90 acres of grounds were divided into four distinct areas: the gardens entrance; the walled kitchen garden; the pleasure grounds and St Roche's Arboretum.

The Oak Hall's panelling dates from the late 19th century but was later embellished in the 1930s with elaborate decorative motifs designed by Rex Whistler to a commission for Edward James

The Sunken Garden reopened in the spring of 2014 following a six-year restoration. The original is thought to have been built around the late 19th century

PHOTOGRAPHS COURTESY OF WEST DEAN COLLEGE

What to see

The gardens are open to visitors for most of the year and the attractions include the 100m-long Edwardian pergola, designed by Harold Peto; the walled kitchen garden; the Sunken Garden; the arboretum; the Spring Gardens and Pond; and the Victorian glasshouses. Regular seasonal events are held in the gardens, such as the annual Chilli Fiesta in August, as well as temporary photographic and art exhibitions.

The College holds regular Open Days, concerts, artist talks and other events where visitors can enjoy the opulent Edwardian surroundings.

West Dean Gardens has 13 working Victorian glasshouses. The splendid glasshouses were all built between 1890 and 1900 and were completely derelict before their restoration in the early 1990s

With its book-lined walls, the Old Library at West Dean features opulent Edwardian décor

The Music Room is hung with paintings from Edward James' collection

The annual Chilli Fiesta is the UK's largest chilli festival

Studying at West Dean

The College's School of Conservation offers degrees and diplomas in the restoration of books, ceramics, clocks, furniture and metals, while the School of Arts allows students to specialise in painting and drawing, sculpture or tapestry and textile art. The College also offers courses in musical instrument making. If a full-time degree is too much of a commitment, then there are short courses available in a wide variety of subjects, including drawing, conservation, metalwork, printmaking, woodwork and furniture making.

Short and long-term courses on offer at the college include furniture conservation

Where else to see… historic gardens

Kew Gardens
Kew, UK
www.kew.org/kew-gardens

The Lost Gardens of Heligan
Cornwall, UK
heligan.com

Nymans
Sussex, UK
www.nationaltrust.org.uk/nymans

Wakehurst
Sussex, UK
www.kew.org/wakehurst

Information for visiting

Address: West Dean, Nr Chichester, West Sussex PO18 0QZ
Website: www.westdean.org.uk
Opening: West Dean Gardens are open to the public from February to December; the College hosts regular events and open days
Charges: Garden tickets from £5.50 depending on season; prices for events vary

Information correct at time of publication, check the college's website before making your visit

An airbrush with the past

Derek Jones dips into the *F&C* archives for this ebony desk

IMAGE BY IAN HALL/DAVID APPLEGATE/GMC PUBLICATIONS

For this month's Airbrush with the Past I've chosen an example to demonstrate the level of complexity that often lies beneath a simple structure. David Applegate's article appeared in the April 2002 edition of the magazine (along with a profile on Tom Lie-Nielsen) under the title 'Nesting Instincts' as it is partly about the making of a nest of tables. In the opening paragraph he references a book that we should all be familiar with, Charles Hayward's *Woodwork Joints* and a joint that Haywood called a 'showcase joint' or 'museum joint' for obvious reasons. David is quick to point out that the joint lacks the structural integrity to be used in something like a chair, as there is such a lot of end and short grain created, but is OK for a small table so long as nobody attempts to stand on it to change a light bulb – heaven forbid! The tops are veneered with burr oak and a solid band of ebony inlay. Our illustrator, Ian Hall, has done a great job revealing how the other aspects of the table were made including the drop-in tops and mortise and tenon cross rail to the underside of the large table. Proving once again that a picture really does paint a thousand words.

I received a commission from an architect several years ago to construct some wall hanging cabinets for a kitchen in a display cabinet style. The glass was glued into grooves with a mastic adhesive that was incredibly rigid when everything had cured. The joints themselves were just a plain three-way mitre without the halving and mortise. They were excruciatingly awkward to assemble and not entirely practical when installed so there were no repeat orders. It hasn't put me off doing something similar again one day though. F&C

Next month

Next month we'll be going back to issue 71 and December 2002 for a look at Robert Ingham's china cabinet.

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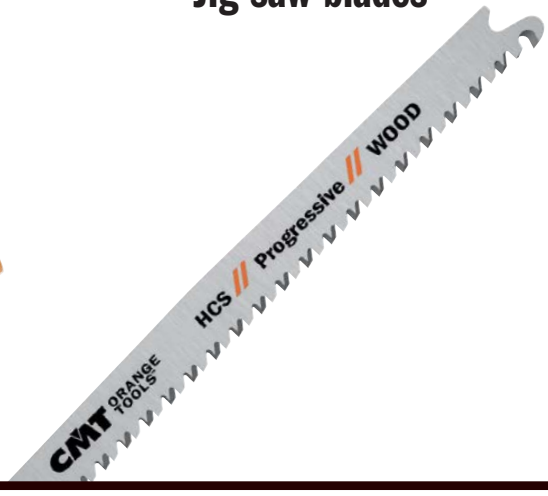

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Coronet Herald Heavy Duty Cast Iron Electronic Variable Speed Lathe

"The Herald lathe looks stunning with a retro feel to a very modern lathe... With large blanks mounted you can use the variable speed control to keep the machine stable and vibration free, and overall it has a very solid feel... Would I recommend this lathe? Yes without a doubt, it's well designed and built to a high standard."
Online Review

"**The new Herald - Sets a new standard**
It surpasses my expectations by a country mile! With its excellent finish, capacity, accuracy and its range of speeds, I'm sure this Coronet Herald has the required credentials the majority of wood turners could ever wish for! The size is ideal for the turner with limited space, has outstanding capacity for its footprint and is very quiet indeed...
Record Power most certainly have a winner."
Online Review

Heavy-duty spindle lock and 24 point indexing

Features the latest motor technology to deliver huge amounts of torque from the 750 W output motor

Rotating headstock features accurate angle stops and can swivel 360°

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Specifications

Maximum bowl diameter:	533 mm
Maximum between centres:	508 mm
Maximum swing over bed:	355 mm
Speeds:	96-5040 rpm
Motor input P1:	1000 W
Motor output P2:	750 W
Thread:	M33 x 3.5
Taper:	2 Morse taper
Weight:	48 kg
Size:	W870 x D290 x H252 mm

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16011 Cast Iron Bed Extension	£149.99	**Save £30.00**
16013 Cast Iron Outrigger	£39.99	**Save £10.00**
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