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Welcome to...

...the creative process

he sharp eyed among you will notice that we've given the front end of the magazine a few tweaks this month, mainly to alter the pace at which information is shared but also because, like every creative process, it's never really complete. You'll be glad to hear, I'm sure, that we have the usual excellent mix of inspirational technical content from an equally diverse list of designers and makers.

Our first project is something I've been researching for more than a year now and will continue to work on for a lot longer. Cricket tables have a long and varied history but are considered very much as vernacular furniture and not given anywhere near the attention they deserve; unless you're a dealer of these fine pieces in which case you'll crawl over hot coals to find a good one. Our second project welcomes the return of David Waite to the pages of F&C with the first of two articles about his adventures into producing designs for small-scale batch production furniture.

In celebration of the best designer-makers currently operating in the UK, our gallery spread comes from the inaugural Evolution of Tradition exhibition curated by the Furniture Makers' Company and held at the Design Centre in Chelsea. If there was one event that I wish I could have invited you all to it was this one. Maybe next year.

Dovek Jones

Derek Jones derekj@thegmcgroup.com

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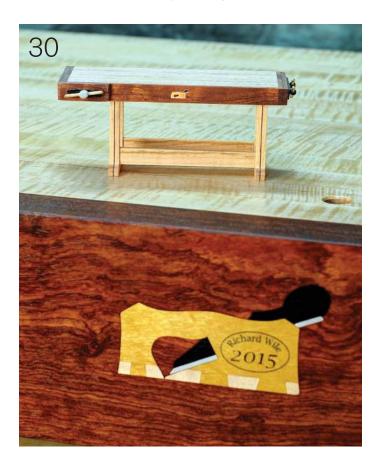
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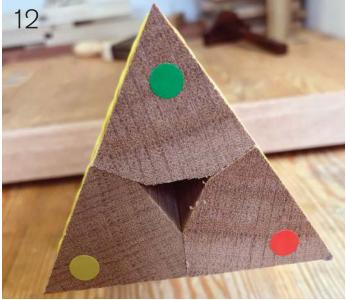
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Don't forget there are plenty more articles and discussions to be found on the Woodworkers Institute & Forums www.woodworkersinstitute.com



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Meet the contributors



Theo Cook

Theo completed a five-year apprenticeship at the Edward Barnsley Workshop and during that time he took a year out to study at the prestigious College of the Redwoods in the USA. After nine years at the Barnsley Workshop he worked at Senior and Carmichael gaining several awards including Guild Marks from the Worshipful Company of Furniture Makers. He now teaches at Marc Fish's Robinson House Studio.

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Steve Coonick

Steve is a classically trained fine furniture designer/maker with a background in engineering. Founder of KOOS furniture located in north Cornwall, he is driven by a passion for design, precise craftsmanship, sustainability and endless learning.

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Hendrik Varju

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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David Waite

David was involved in scientific research for over 20 years prior to enrolling on a one-year designer/maker course at Waters and Acland. In 2017 he decided to create the luxury hand-crafted furniture business Four Limes Design. Its remit is to create bespoke fine furniture that will last for generations.

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Richard Wile

Richard lives in Nova Scotia, Canada; he is an accomplished IT professional and has been an amateur woodworker for a lifetime. He has tried his hand at many woodworking genres throughout his years in the craft. His personal take on traditional designs is heavily influenced by his global travels and has become a trademark of his work. Using a variety of hand and machine techniques, Richard has crafted many unique furniture pieces, hand tools, turnings, miniatures, and acoustic stringed instruments from his basement workshop.

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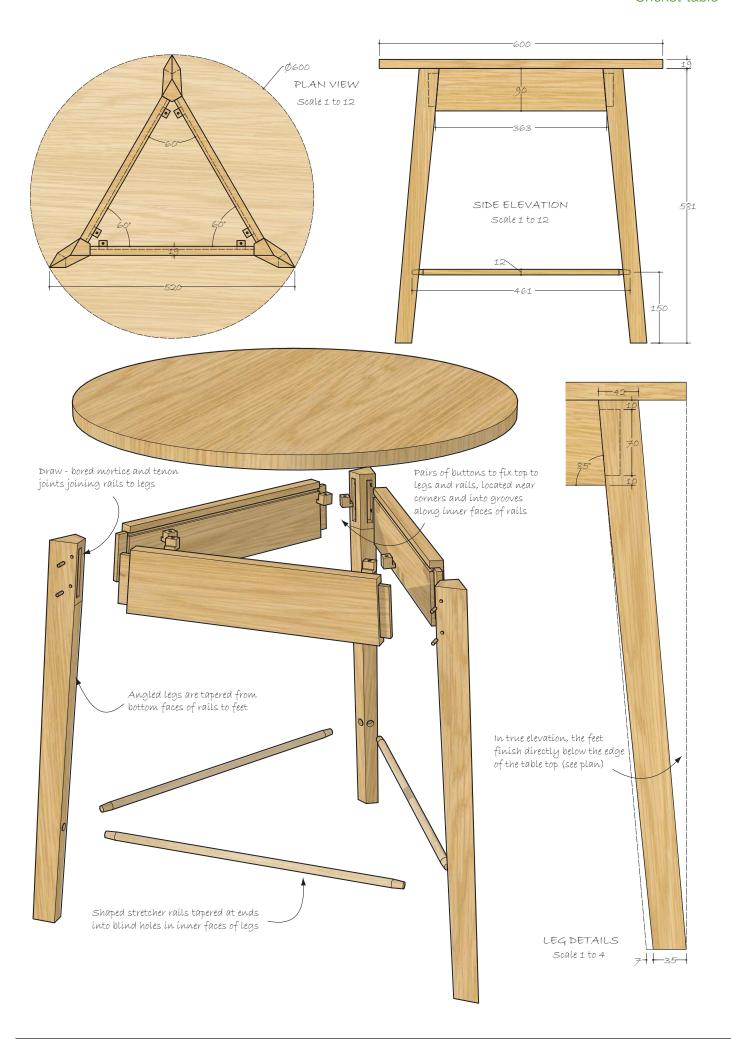


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PROJECTS & TECHNIQUES

Cricket table



www.woodworkersinstitute.com F&C278 **13**

Origin of the species

For years I assumed the term cricket table was in some way linked to the game of the same name, the visual clues are there after all; three stumps for legs, some rails that could be interpreted as bails and a ball-shaped top. Delving into the nomenclature for clarification revealed a far more interesting story, however.

There are several words thought to be the origins of the term cricket or creckett that link to this style of table. All are perfectly plausible given the established trade routes between England and its immediate European neighbours from the 15th century onwards. For example, the French term used to describe a wooden post was criquet while in Old English a cryce or cricc described a crutch or staff. As the earliest three-legged stools and low tables consisted of three sticks driven into round mortises bored into a slab of wood, it's probably safe to assume the reference then was to the stick and not a game. Adding weight to that theory is the Middle Dutch word krickstoel used to describe a low long stool used for kneeling in church; krick being the Middle Dutch word

for stick. Variations exist in regional dialects across England such as crickit, crackett and cracket of which the first recorded use was in 1635 describing a low three-legged stool; an item widely used throughout Europe at the time. Low stools and back stools aren't necessarily indicative of a nation short in stature. The reduced height meant that sitters could remain below the cloud of smoke in dwellings that weren't equipped with chimneys or smoke holes. In practical terms three legs are more stable than four as the three points will always come to rest without rocking but it's not the only reason three legs were a popular feature on stools and chairs during the 17th century. Desperately in need of funds to support a growing naval fleet, the treasury sought to capitalise on the growing number of more affluent citizens by taxing luxury goods. It's hard to imagine now but in the 17th century chairs fell into this category. The chair tax was introduced in 1661 and was based not on the chair as a whole but on the number of legs it had. It did nothing to dispel the popularity of chairs of course and in rural

areas especially, three legged 'excise' chairs were the norm. The tax was abolished 150 years later by the Prince of Wales when he became Prince Regent in 1811.

What's in a name?

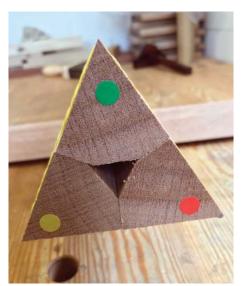
The first universally accepted reference to the game of cricket came by way of a legal dispute over a plot of common land in Guildford, Surrey in 1597. During the court proceedings 59-year-old coroner John Derrick testified that he and his school friends played 'creckett' on the site some 50 years earlier while attending the local Free School (now Royal Grammar School) placing the origins of the game somewhere in the 1550s. The earliest recorded account of adults playing the game appeared a little later in 1611, and once again was the result of a court hearing. Two men from Sussex were prosecuted for playing the game on a Sunday instead of attending church.

A complex hybrid

To begin with you need to draw a circle onto a template board that represents the size of the top. Using your compass or a pair of dividers set to the radius of the circle, step off six points around the circumference. Now strike a line to alternate points in the sequence to create an equilateral triangle. In case you need reminding the angles at each point are the same, 60°.

Your sketch, we'll call it a rod from here on, represents the ideal footprint for your table base as the points will be where the outer corners of the feet contact the floor. Before you can determine the size of the stock needed to make the legs, have a think about the size of the mortises you're going to cut and how you intend to cut them. If you're mortising by hand with a mortise chisel select a chisel around the 6mm mark, likewise if you're using a hollow chisel mortiser. If you're drilling first and then clearing the waste with regular bench chisels you can be a little more flexible. The point of this exercise is to determine the thickness of the aprons, which if you're adopting the rule of thirds approach, will be three times the width of the mortise.

Going back to your rod for a minute, now draw a line to represent what will become the shoulder face of the leg at 90° to the edge of the triangle far enough away from the tip of the leg so that a mortise can be accommodated. Tip: it needs to be at least the thickness of the apron material and preferably more. Do the same to the shoulder face on the other side of the leg to determine the depth of the second mortise. I'll warn you now, it's tight but for reasons I'll explain later you can put aside your perception of strength and stability within corner joints for now. If your mortises happen to meet in the middle of the leg you'll have to create



Legs marked up and ready for final dimensioning

a 30° mitre at the tip of the tenons where they're likely to touch. It's not a problem so stick with it. In fact it's a good scenario if you're chopping out the waste by hand as the risk of breaking through the bottom of the mortise is high. With this done you can now rip your leg components to size and while you're at it cut a support piece, maybe half as long as the legs again with a 30° angle cut along one edge. You'll use this to steady the legs while mortising and planing later.

Squaring up the legs is the key to getting the frame together neatly when the time comes and there's a knack to it. Knowing where to focus your efforts will make the task so much easier and here's how I tackled it. If the depth of my aprons is, for example 100mm, then all I need to worry about is the 100mm that will take the mortise and tenon.



Checking the geometry of the components against the rod

The rest of the leg can be slightly out of square. I know it's a hard concept to accept as it probably goes against every instruction you've learned but loosening the straps on the straitjacket of unnecessary perfection now and then is a good thing.

Now's the time to decide if you want to put a taper on the legs. If you do it'll be on the two inside faces that are at 90° to the outside faces of the legs. I did mine by hand propping the leg against the 30° support with a stop clamped to the bench at the far end. Tapering the legs gives the table a much lighter look but it also results in a more contemporary appearance. The majority of period examples are straight legged all the way down to the stretcher and then tapered below that to the floor. This was to be the style for my third version.



The taper marked out on the bottom of the leg



Boards placed either side of the leg for support while planing

A mixture of rake and splay

There are no hard and fast rules about the amount of splay you put on your legs or whether you do it at all, but there are some things you might want to consider. For example a wide splay over a short distance, i.e. short legs, will make your table appear more squat and put stress on the joints at the apron if a bottom stretcher isn't used. It will also create a smaller contact area for the top to sit on and leave you with some proportionately extreme overhangs. A narrower splay will do the opposite to all of the above. For pieces that have a definite front, back and sides such as a

chair (both three- and four-legged versions) you'll typically need to factor in a second angle known as the rake. This often helps with seat geometry to prevent chairs from tipping backwards when the sitter reclines. For a table you don't generally have to make that allowance so the rake and splay are the same. On this design the angle is generated by sloping the ends of the aprons by 5° if you're working with tapered legs and 6° if you're not. You may not like either of my suggestions in which case experiment with a sliding bevel, clamps and the aprons and stretchers to find your own.



The legs and aprons are marked up for mortising



A mortise chisel determines the thickness of the tenon



Capturing the second measurement to complete the joinery layout

What makes brown oak brown?

Brown oak is similar to spalted beech or olive ash in that the darker colour comes from a fungal infection within the tree. While it's not considered a structural defect, brown oak is not recommended for use in construction or for outside. The timber tends to be softer and easier to work with hand tools. Village carpenters would have valued this greatly giving rise to the term 'green ebony'.



This wide board of European oak has the brown streak running up the centre

Rake and Splay Splay is measured across the width

Splay is measured across the width of the chair when viewed from the front and back.

Rake is measured across the width of the chair when viewed from either side.



Angling the mortises

You can cut your tenons with the top edges running parallel with the top and bottom of the apron as it will avoid any short diagonal grain. The mortises, however, need to be cut to accommodate the splay angle. The quickest way of doing this is to bore straight mortises and then over or under cut the ends with a chisel while reading off a sliding bevel set to the splay angle and positioned where you can see it. It's a lot easier than it sounds. Alternatively you could work with an angled block to shim the leg while drilling or mortising. A machine setup may allow you to tilt the bed by the required amount.

If your components are delicate you'll need to be mindful of the size and spacing of the draw pegs as you may find their exit points on the inside of the leg collide. My workaround here was to stagger them; two pegs on one side and one in the middle on the other. Don't expect to be able to drive them in much further than the thickness of the leg and make the taper/point short.

You can shape the round stretchers from square stock quite easily with a spokeshave or a block plane. If you're looking for perfection you could use a hollow moulding plane. I did and immediately regretted losing the flats. Locating the holes for these is done by first assembling the frame dry and using a block that's cut to the height from the floor that you want to position them. Make a mark across the inside of the legs with a pencil and transfer the legs to your pillar drill or use the sliding bevel trick again to get the right angle.

There are two more things you need to do before gluing up. Because the splay causes the three sides to lean in towards the centre of the table, the top edge of the apron is similarly angled. You need to rectify this by planing a 5 or 6° bevel across the top as appropriate. Do it now as it's hard to do afterwards and it will give you some reference surfaces to rest your saw against to trim the tops of the legs. You'll need to repeat this on the stretchers as well if you intend to fit a shelf to it. The last thing on your pre-assembly to-do list is to rout or

plough a groove for buttons at the top of the inside face of the apron components. You might want to consider applying any decorative mouldings as well at this point. I ran a %in bead along the bottom edge of the aprons on one of mine. Gluing up is best done with strap clamps and not sash



Drilling out the waste for the mortises using the 30° support board

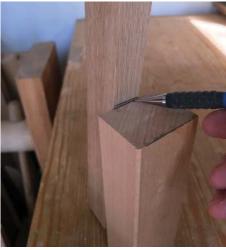


Creating perfectly imperfect dowel stretchers

clamps. My preference is a glue with a long open time such as Titebond Liquid Hide Glue or Old Brown Glue. If a lot of pressure is needed to pull the frame together you will crush the corners but don't sweat too much over them as you will want to round these off later.



Undercutting the mortise ends using a sliding bevel as a guide



Assemble the frame dry and mark the location of the stretcher with a block cut to the height required

Fixing the top to the bottom

After cutting the top I smoothed the edge with a couple of different spokeshaves; one set for a rough cut the other for a fine one to produce a slight roundover. I also carried out the necessary tidying up of the frame including chamfering the bottom of the legs.

The first method for fixing the top is to use buttons. I've written about these many times before so won't dwell too much on them now other than they allow the top to expand and contract without splitting or stressing the frame. The second is more traditional but not one I've seen on a cricket table. Typically they have a board beneath the top that's oriented across the joins for support, which is let into two of the aprons. This can be nailed in place and then nailed to the top. An equally acceptable solution is to nail directly through the top into the aprons or legs. As traditional a method as it is I'm not quite ready for this level of unsophistication yet.

A prettier solution is to adopt a technique found on joint stools where wooden pegs are driven into the apron or legs directly through the top. It's usually done in one procedure as the splay creates a wedge out of the pegs and prevents it from lifting. My belt and braces approach included back wedging the pegs through the top.





 \ldots the edge is rounded over slightly in the process



Chamfering the feet prevents the edges from splitting



A complete set of components for the third table



Aprons drilled for fox-wedged dowels before assembly



Drill holes through the top at the same splay angle for the pegs



Adjacent pairs of pegs pinch the top to the base

www.woodworkersinstitute.com F&C278 **17**



The Mirlon Total pads have many uses, they can be used to cut back in between coats of finish...



... and then used to apply an oil finish like Osmo and finally to apply a coat of beeswax



The ingredients for a patina-enhancing stipple



Stain on its own is pretty bland but it's a good base



Apply the stipple all over and work into the corners and crevices

Finishing up
I used two methods of finishing for my tables, the first a simple wash coat of dilute shellac to raise the grain followed by a vigorous cut back with the Mirlon Total abrasive system featured in F&C 277. I followed up with two coats of satin Osmo applied with the same ultra fine abrasive and a coat of my own beeswax polish. The second was an attempt to add some age to the piece by first applying a blend of light oak and mahogany oil stain. This is sealed in place with a dilute wash of shellac as before. The next step is to mix up a stipple using brown umber and red ochre earth pigments in white spirit and gold size. It's brushed on and allowed to tack up slightly before rubbing over with a cloth to remove the excess and leave a build-up in the corners. After an hour or so another coat of shellac was applied to fix it before two further coats of Osmo and then wax. The result is a good,

albeit fake, patina that doesn't look at all out of place on this style of table.

By far the most challenging aspect of this build was coping with the odd shape of some of the components and in particular levelling off some of the surfaces after assembly; triangles don't like being squashed into a vice. On top of that it was also difficult to let go of my detail obsessed upbringing and work in a more relaxed way where to some extent the process dictates the form. What surprised me was just how rigid the structure was despite the relatively thin components and meagre joinery. There are a couple more experiments I'd like to try with this form, a thicker top with a deep chamfer on the under side for example and an Arts & Crafts version with carved detail to the legs, but before that a cracket, or crecket or even krickstoel or two. F&C



Wipe the excess stipple away but leave a little behind where grime would naturally build up

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260SS Planer

with Spiral Cutter Block

iTECH 260-SS Planer Thicknesser complte with spiral cutter block and digital readout on thicknesser

Technical Specification:

Motor 2.0kw 1ph Planing table size 1050 x 250mm Maximum planing Capacity 250 x 180 mm Maximum cutting depth 3mm Feed speed 4.8 m/min Packing size 1,150x640x950mm Net/gross weight 176/214kgs

310SS Planer

with Spiral Cutter Block

iTECH 310-SS Planer Thicknesser complte with spiral cutter block and digital readout on thicknesser Technical Specification:

2.2kw 1ph Motor Planing table size 1600 x 310mm Maximum planing Capacity 310 x 220 mm Maximum cutting depth 5 mm Feed speed 6 m/min 1,1670 x 680 x 1040 mm Packing size Net/gross weight 292 / 357 kgs

Blatchford Rd, Horsham RH13 5QR 01403 273000

scosarg.com

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

Hungary takes gold at Euroskills



Krisztián Simon on his way to winning gold in Cabinetmaking

ungarian competitors won gold medals in both Cabinetmaking and Joinery at the Euroskills competition in Budapest. Hungarian Krisztián Simon took gold in Cabinetmaking, while Christian Buchegger of Austria won silver and Nikolai Golikov of Russia took bronze. In the Joinery competition, the medals went to Ádám János Nagy of Hungary, Vitalii Bondarenko of Russia and Alexis Nue of France.

For the UK team, Christopher Caine, a student at Pembrokeshire



Christopher Caine (left) with Team UK Training Manager Andrew Pengelly

College, earned a medallion of exellence in Joinery. Altogether, Team UK won one gold medal, three bronze and seven medallions, placing them ninth out of 27 countries. The team can now look forward to Worldskills 2019, which will be held in Kazan, Russia.

Contact: Euroskills Web: www.euroskills2018.com

Design Guild Mark open for entries

he Design Guild Mark is now accepting applications for both the Furniture and 2D (textiles, wall coverings, surfaces, carpets and floor coverings) categories for the 2019 awards. The Design Guild Mark, awarded by The Furniture Makers' Company, is unique to other design awards as the panel of independent judges examine the submitted piece and question the designer during a judging day that takes place in the Carpenters' Hall in the City of London.

Designs awarded a Mark benefit from increased industry and consumer awareness, press and social media coverage, with the

designers and companies behind them also receiving enhanced brand recognition.

The piece from both the Furniture and 2D categories deemed to be the most outstanding by the judges will also win the Jonathan Hindle Prize for Excellence – a £1,000 cash prize.

The deadline for entries is 24 January 2019. Further information and application forms can be found on the website.

Contact: Design Guild Mark Web: designguildmark.org.uk

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La-Z-Boy UK launches eco packaging

a-Z-Boy UK has introduced eco-friendly, plastic-free packaging on the majority of its sofas and chairs.

It has become the first brand in the UK to have adopted this revolutionary, 100% recycled and fully recyclable product, which features a woven, quilted protective bag and outer carton to minimise damage in transit. The packaging contains no plastic, polyurethane or restricted chemicals, and has a reduced carbon footprint compared to standard packaging. All sofas from its Far

East factory are now packaged using these green materials. Quality manager Pete McDonald said: 'We're really proud to be the first brand in the industry to have adopted this innovative approach. It's important for a world-renowned brand to take its environmental considerations seriously, and our next focus is to work on reducing plastic on our European-made products.'

Contact: La-Z-Boy UK Web: www.la-z-boy.co.uk

Events

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

EVENT OF THE MONTH

Christmas Installation at Dennis Severs' House

Absorb the festive sights, sounds and scents on a candlelit journey at this unique 18th-century house in Spitalfields, London. This year's event recreates the Christmas of 1836 and the celebrations of the Jervis family, who lived in the house at the time. A range of visits are available; at the 'Daytime' and 'Silent Night' visits, you can wander round the 10 historic rooms by candlelight. The 'Exclusive Silent Night' visit is a particularly special event where over the course of two hours you can explore the house at your own pace and in more detail. As the evening draws in there's a chance for you to sit by the fire with a glass of mulled wine in one hand and a mince pie in the other, getting a secret insight into the lives of the Jervis family from the curatorial team. Early booking is advised.

When: 25 November 2018-4 January 2019

Where: Dennis Severs' House, 18 Folgate Street, Spitalfields,

London E1 6BX

Web: www.dennissevershouse.co.uk



Christmas in the Victorian room of the Dennis Severs' House

ESPRITMEUBLE

This trade fair attracts over 300 French and international brands, as well as distributors, buyers, architects, decorators, design school students and engineers. ESPRITMEUBLE is the place to discuss ideas, encourage business, promote or discover the latest trends and innovations, including new furniture, sofa, living room, bed and decoration collections.

When: 1-4 December Where: 2 Place de la Porte de Versailles, 75015 Paris, France

Web: www.espritmeuble.com/en

Keep Cosy this Christmas

The period rooms at the American Museum will receive a festive makeover for the



Encounter festive characters at the American Museum

Keep Cosy event.
The Museum has
partnered with The
Natural Theatre
Company to create
three special
characters who
will greet visitors
at this immersive
experience. Enjoy
the fun and frivolity
in Conkey's Tavern,
hunker down
against a winter
chill in the house

of the Lee family and join the party preparations in old New Orleans. When: until 16 December Where: Claverton Manor, Bath BA2 7BD Web: americanmuseum.org

Christmas at the Weald & Downland Museum

From Tudor to Victorian times, a festive treat awaits visitors to the Weald & Downland Museum, when the historic buildings will be decorated to reflect how Christmas has been celebrated over the centuries.

When: 26-27 December

Where: Town Lane, Chichester PO18 0EU Web: www.wealddown.co.uk

Home Futures

The 'home of the future' has long intrigued designers and popular culture alike. At this exhibition, you can explore yesterday's visions of the future, as avantgarde speculations are displayed alongside contemporary objects and new commissions. Historical notions of the mechanised home and the compact home are displayed alongside contemporary phenomena such as connected devices and the sharing economy. Rare works on display include original furniture from the Smithsons' House of the Future (1956), footage from the General Motors Kitchen of Tomorrow (1956) and an

original model of Total Furnishing Unit by Joe Colombo (1972).

When: until 24 March 2019 Where: Design Museum, 224–238 Kensington High Street, London W8 6AG Web: designmuseum.org



La Casa Telematica (The Computerised Home) designed by Ugo Ia Pietra in 1983 for the Milan Fair

F&C278 **21**

Young Furniture Makers exhibition brings together breakthrough design talent

reakthrough design talent from across the UK came together in London on 10 October to exhibit for one day only at The Furniture Makers' Company's annual Young Furniture Makers exhibition.

Around 90 pieces of furniture and lighting from GCSE and A-Level students through to BA and MA graduates packed out the Dutch Church and Furniture Makers' Hall in Austin Friars, London, contributing to one of the best displays in the exhibition's more than 10-year history.

The Young Furniture Makers exhibition, sponsored by Axminster Tools & Machinery, Harveys Furniture, Bensons for Beds and The Furniture Ombudsman, is completely free for participants to exhibit at and provides the next generation of designers and makers an invaluable opportunity to present their designs to key members of the furnishing and design sector.

The exhibition opened at 1pm with visitors soon filling the two venues to see this year's talent. Hayden Davies, Master of The Furniture Makers' Company, officially welcomed guests at 7pm before presenting this year's awards, which were assessed during the day by a panel of distinguished judges.

This year's judges were: Anthony Bailey, editor of Woodworking Crafts magazine; Steven Minghella, retail sales manager at Timothy Oulton; Rupert Senior, multiple award-winning designer-maker; Peter Sharratt, technical support advisor at Blum; and Alan Styles, managing director at Axminster Tools & Machinery.

The winners of the awards were:

- The Young Furniture Makers Bespoke Award, sponsored by Festool, was awarded to Beatrix Bray (pictured above) for the Fluctuare Table
- The Young Furniture Makers Design Award, sponsored by Crofts & Assinder, was awarded to Lewis Small for the Wilf Floor Lamp
- The Young Furniture Makers Innovation Award, sponsored by Knightsbridge, was awarded to Matt Hill for the Array Table
- The National School Prize was awarded to Brodie Haward for the Radioactive Bench
- The Blum Best in Show Prize was awarded to Harriet Speed for Corkey's Cabinet
- The Timothy Oulton Best in Show Prize was awarded to Mac Collins for the Iklwa Chair.

This year's exhibition also included a special feature of six chairs from the Frederick Parker Collection, an educational resource owned by The Furniture Makers'



Company that includes over 200 chairs and archive material spanning 300 years of history.

Master Hayden Davies said: 'The Young Furniture Makers exhibition continues to go from strength to strength and the 2018 event showed that there is a lot of exceptional, up and coming talent out there. The Young Furniture Makers exhibition brings together all elements of The Furniture Makers' Company's wide education output, the culmination being a tremendous celebration of incredibly gifted young designers who want to build long and successful careers in the industry.

'I would like to thank exhibition sponsors Axminster Tools & Machinery, Harveys Furniture, Bensons for Beds and The Furniture Ombudsman, as well as the awards sponsors and logistics sponsor, Celtheath, for helping make the exhibition possible.'

Alan Styles, managing director of sponsor Axminster Tools & Machinery, said: 'Axminster is proud to support the Young Furniture Makers exhibition for the fourth year in a row. The event is a great way for students, education and industry to network, which with the work by The Furniture Makers' Company and the many individuals who give their time, is notably making a difference.

Axminster is focused on developing products and service to suit its many customers. The association with the Young Furniture Makers and The Furniture Makers' Company gives us a great insight in which to develop what we do, and so we feel privileged to give back.'

Mac Collins, Timothy Oulton Best in Show Prize winner, said: 'I am really proud to have won the Timothy Oulton Best in Show Prize at this year's Young Furniture Makers exhibition. It was a massive surprise and I am really grateful for the opportunity to go out to Hong Kong with Charlie Oulton and the team. It was a great evening surrounded by lovely people, both new and established, in the furniture industry.'

A short video of the event is available to view: bit.ly/YFMexhibition2018highlights



The Furniture Makers' Company is a City of London livery company and the furnishing industry's charity. www.furnituremakers.org.uk

FRUTUGRAFIT GUURTEST UF THE FURWITURE MAKERS GUMPANT





S 45 n

A small Band Saw with great capabilities that is perfect for either the joinery workshop, schools, furniture restoration or renovation



T 55 W elite sA Spindle Moulder with great versatility for many tasks

FS 41 elite s

Heavy duty, compact and created to meet all planing demands of workshops



ECO 300 D
An efficient low cost dust extractor





Evolution of Tradition

Derek Jones reports from a new exhibition celebrating the UK's top furniture designers

volution of Tradition is a new exhibition of luxurious bespoke furniture, designed and made by some of the UK's most distinguished craftspeople. The exhibition is the result of a collaboration between The Furniture Makers' Company and Design Centre, Chelsea Harbour. For the first time, these two respected institutions have come together to host this very special event showcasing designs purely from Bespoke Guild Mark holders.

The Bespoke Guild Mark

The Bespoke Guild Mark, awarded by The Furniture Makers' Company, is the ultimate accolade for designer-makers, recognising excellence in design, materials, craftsmanship and function for exquisite pieces of furniture made as single items or a limited run of up to 12. In order to be awarded a Bespoke Guild Mark, each design will first have been stringently vetted and scrutinised by a panel of judges made up of some of the UK's best designers and makers of bespoke furniture.



Laurent Peacock

An industrial designer by training, having gained a First Class degree in 2001, Laurent Peacock steered away from designing mass-produced plastic widgets to instead pursue a passion for hands-on making.

In 2016/17 Laurent trained in fine furniture making under Marc Fish at Robinson House Studio before going on to set up his own practice. He is naturally inquisitive and harbours a fascination for materials, often resulting in unexpected combinations of colours,

patterns, textures and techniques. Laurent's technical savvy and creative air, combined with extreme patience and attention to detail, earned his Sika console table the Bespoke Guild Mark in 2017.

He works on commissions for private clients and high-end interior designers as well as one-off pieces for exhibition, small batch collections and experimental surface materials.

Web: www.laurentpeacock.com





'I fuse traditional craftsmanship and time-honoured timbers with cutting-edge techniques and new materials, often presenting familiar ingredients in surprising and unfamiliar ways'

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DESIGN & INSPIRATION

Evolution of Tradition



Angus Ross

Angus Ross is a designer and maker based in Highland Perthshire, Scotland. He has run a studio-workshop for 25 years and is best known for his innovative use of steam bending to make sophisticated furniture characterised by dynamic curvaceous lines. Since 2004 he has been a co-owner of a beautiful, native woodland on the banks of the River Tay. As part of a sustainable management plan, a few carefully selected trees are felled, milled and prepared for furniture making each year. This green undried oak is the source material that has led to a deep exploration of the ancient art of steam-bending.

His recent work combines steam-bending, traditional woodwork and CNC cutting. The furniture is made to commission for private collectors, for public places and public collections across the UK including the new V&A Dundee. His work has been widely published in the *Financial Times*, *FT How To Spend It*, *The Times*, *Vogue*, *Homes & Gardens*, the *Guardian* and is featured in *The Story of Scottish Design*, published by the V&A, September 2018.

Web: www.angusross.co.uk

'Design informs my approach.
Steam-bending informs my making
– a few moments of intense physical
interaction in partnership with the wood.
As a woodsman I am balancing the
needs of the woodland, the workshop
and the customer from every step
from standing tree to final oiling'

Rupert McBain

Rupert McBain Studio specialises in creating distinctive bespoke furniture from exquisite materials. Rupert designs furniture and leads a team of makers engaged in the production of one-off pieces for an international client base. He studies form, texture and colour, drawing on subtleties of influence and concept to shape a piece of considered furniture.

Craft at the highest level is combined with technology and fantastic materials to produce pieces that are beyond the ordinary.

Web: rupertmcbainstudio.com



'I bring a particular and evolving aesthetic to furniture. While maintaining my own vision, I engage and produce pieces which resonate deeply with both clients and architectural spaces'



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Tim Gosling

Tim Gosling graduated from Central School of Art and Design in 1987 with a degree in Theatre Design. In 2005, following 18 years as a Director at Linley, Tim set up Gosling and has built up an inspiring portfolio, with commissions for interiors, super yachts and furniture worldwide. Commercial projects include The Goring, one of London's last five-star hotels and the only hotel in the world to receive a Royal Warrant. Tim has been instrumental in the furniture design for the Bond Street flagship Jaeger Le-Coultre store, the luxury Swiss watch and clock manufacturer.

Tim's bespoke furniture design has both style and longevity, and an international reputation for excellence. His commissions draw inspiration from classical architecture and styles but have a contemporary feel. Every piece of furniture and every element of an interior are completed to the most rigorous standards using the best materials and traditional cabinetmaking techniques.

Web: www.tgosling.com

'My distinctive collaboration with the client ensures the furniture I design has integrity. From the initial sketch, the idea can develop and evolve to encompass both the client's needs and vision and a unique, bespoke piece they will be happy to live with for years'



Katie Walker

Katie Walker is a furniture designer and sculptor. She has an art-based approach coupled with a desire for pragmatism. She holds the belief that our quality of life will be enhanced by beauty in the everyday functional objects we use. Her designs are inspired by an ongoing interest in the mathematical aspects of natural forms and are achieved by the harmonious combination of structure and function. Works range from the light and witty through commercial commissions to sculptural pieces, with each design showing a structural integrity and an inherent understanding of how materials can be used in the most efficient way.

Born in London in 1969, her education culminated with two years at the Royal College of Art. In 1994 she established Katie Walker Furniture, which she continues to run today. She has received many notable commissions including a high chair for HRH Prince George.

Web: www.katiewalkerfurniture.com

'My work illustrates the reworking of the traditional, stretching and pushing the boundaries of possibilities of form and material through inventive treatments and innovative techniques and celebrating that beyond the functional aspect of the work'



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DESIGN & INSPIRATION

Evolution of Tradition



who graduated from John Makepeace's furniture design school, Parnham College, in 1999. In 2005 he set up his own studio in London and began designing production pieces for a wide range of European manufacturers, including Gebruder Thonet, Riva, Innermost and Casamania. Since 2010 he has specialised in designing and making his own unique and highly engineered pieces to order and to commission. This awardwinning work is often characterised by energetic and elegant metallic forms that are not only purposeful but also exude a luxurious and precious quality to them.





'My work often mimics the simple yet direct forms and movement commonly found in nature; by re-imagining static objects with a unique use of materials, finishes and engineering'

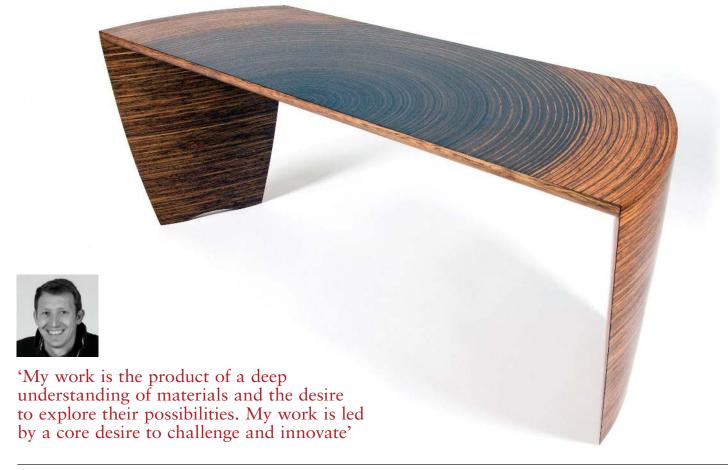
Edward Johnson

Edward Johnson established his business in 2009 after gaining invaluable experience working in the furniture design and manufacturing industry. He graduated in 2007 from Buckinghamshire Chilterns University with a First-Class honours degree. He has since gone on to develop a deep understanding for his craft and now produces museum quality furniture for private and commercial clients. Edward has been commissioned to design and make bespoke furniture for a range of clientele, from first-timers to seasoned collectors. From the outset, Edward's aim is to work closely with

his clients, which include both national and international private patrons, architects and interior designers.

Edward has exhibited his work widely in the UK, and has been supported by and recognised within the industry for achieving excellence within design, innovation and craftsmanship. All of his designs carry his unique maker's mark: a hallmarked solid silver fingerprint which is inlaid into the piece of furniture in a location of the client's choice.

Web: edwardjohnsonstudio.co.uk



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Byron & Gómez
Byron & Gómez is the partnership of Charles Byron and María del Mar Gómez, two dedicated designer-makers who share a passion for contemporary design and traditional craft. Charles and Maria studied at Williams & Cleal Furniture School where they met in 2014. Graduates of the Craft Council's Hothouse programme and touted as 'ones to watch' by Wallpaper* magazine in 2016, the young duo have impressed many with their traditionally handcrafted furniture designed for contemporary interiors.

They have spent the years since working on a string of commissions and speculative pieces, building up a body of work which exemplifies their design values of simplicity and elegance. Through the use of high quality materials and commitment to a simple harmony of form and function, Byron & Gómez create furniture that is bold yet understated.

Web: www.byronandgomez.co.uk



'Through our commitment to a simple harmony of form and function we create furniture that is bold yet understated'



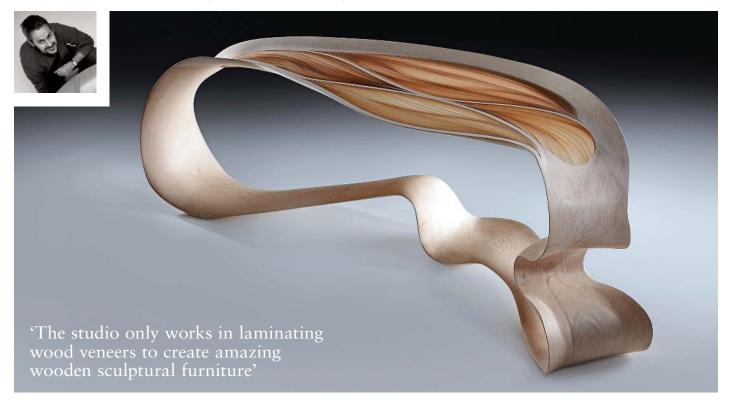
Marc Fish

Marc Fish and the Robinson House Studio's work blurs the boundaries of furniture, art, design and sculpture and has earned international acclaim. The first piece in the Ethereal series is a desk, this project came about as an exploration into materials and an exercise into creating new surfaces. The experiment ended with results that far exceeded Marc's expectations; the studio had created a completely new material from two that they had been using for many years. The top of the desk shows the new material to full effect, the light passes through the frosted resin but the spacing of the wood veneers change

the colour of the spaces it creates. It is both magical and mesmerising, revealing itself only after further inspection. The result of four years experimentation into the relationship of two very different materials.

The desk itself is inspired by nature as is all of Marc's work but specifically leaves. The end of the desk has curled edges like that of a succulent plant. The top is reminiscent of eroded skeleton leaves; lacy, delicate and ethereal. Further pieces to follow in the series include lighting, a console and low table.

Web: www.marcfish.co.uk



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EXPERIENCED SENIOR CABINET MAKER REQUIRED

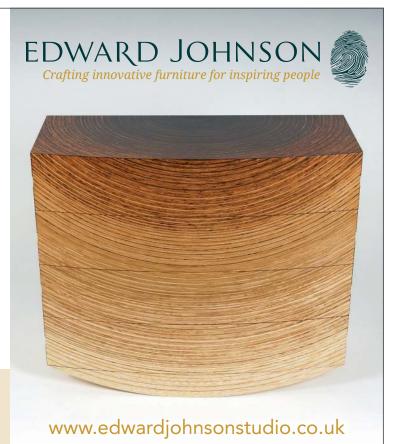
Craftsmanship is at the heart of our business and we are looking for a talented cabinet maker to join our team in a senior position. As a lead maker you will work on the most complex projects and be an integral team member in the workshop.

We make mostly free-standing furniture that will challenge your problem solving and call upon your highest skills, from making veneers in-house to sculpting and shaping solid timber through to hand cutting traditional dovetails. Expect to be challenged, expect to learn and expect to contribute.

- Salary negotiable depending on experience and skill level.
- Project related bonus scheme.
- Pension scheme.

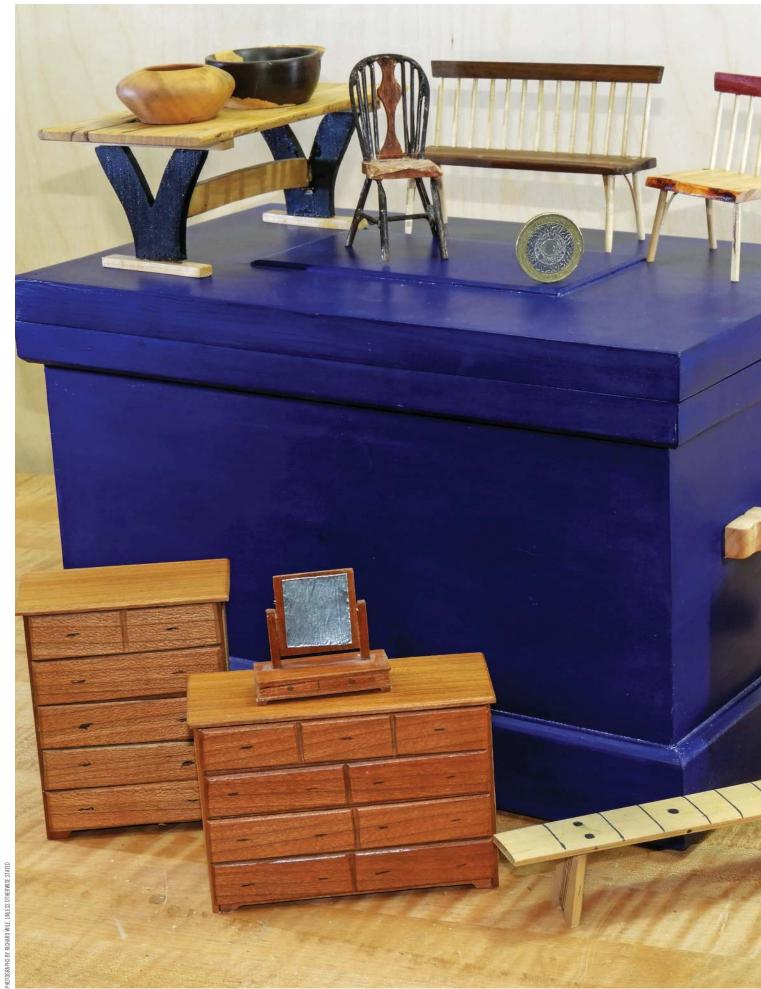
If you would like to be considered for the position of Senior Cabinet Maker, please send us a covering letter and CV outlining your relevant experience to: info@edwardjohnsonstudio.co.uk

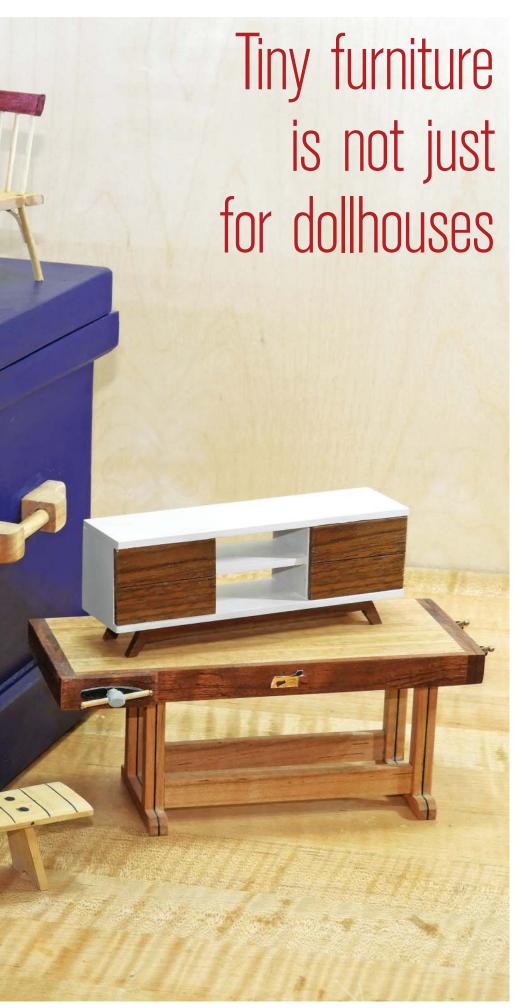
Our workshop is located in Bosham, a short drive or cycling distance from nearby Chichester. Main train lines to London, Brighton and Portsmouth are also within cycling distance.



Edward Johnson, Pea Barn, Old Park Farm, Old Park Lane, Bosham Chichester, West Sussex PO18 8EX • Tel: 01243 696606







Richard Wile discusses the importance of model making to furniture designers

he design process in furniture and cabinetmaking has been the subject of many a tome over the years, with a litany of distinct approaches to the process defined by various authors and experts. One key takeaway here is that many valid approaches exist; and like sharpening, every woodworker has adapted the methods to their own purposes. I am no different, with many design influencers in my past, no doubt all of these exist somewhere in my own process of designing furniture. Regardless of the route that is followed, one aspect is common to every woodworker's pursuit of the perfect design - the time to build arrives.

As furniture makers we can't help ourselves when we look at other's projects, or even pieces in shops or online, and make our own judgement. Many times I have seen pieces built with excellent craftsmanship, only to just not look right for some reason. The sides are out of proportion, or the wood/colour choice creates an undesired visual effect, perhaps unintended by the maker. Maybe there is a way to avoid these building mishaps.

This article explores the notion of inserting another process here, between the 2D design and the actual build a miniature build. Even if you use 3D modelling software to flesh out a design, nothing beats rehearsing the build, and the tactile feedback of a model or maquette. To explore this subject in a bit more depth I have consulted a few other woodworkers and teachers of woodworking to gain their perspective on this subject. Two experienced teachers have agreed to provide their input for this article and I have used their perspectives to contrast with my own experience. Jamie Ward from Leamington Spa College is the Curriculum Leader for Furniture Crafts in Leamington Spa, UK and Patrick Brennan is an Instructor at the Austin School of Furniture & Design, in Texas, USA. These two kind gentlemen have agreed to provide their perspective on this topic and how they use models in their work.

Of course, as with most woodworking ventures, one can choose to take this model-making thing as far as one wants, building operating drawers, turning minispindles for chair legs, chasing rabbit holes you never knew existed. Many of us are familiar with the exquisite accurately constructed 1:6 Vitra miniatures of classic furniture pieces. For me, my model building is a design confirmation process, so I only go far enough to get the information I need.

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Models support exploration of design alternatives Building reference models allows the split to improve the look of the piece. While it a

Building reference models allows the woodworker to explore various alternatives to the design before committing to the actual build. We can apply all the mathematical metrics we like in order to achieve aesthetically pleasing work, golden or otherwise, but sometimes these do not always result in a workable piece; sometimes the end result is just awkward.

During a recent chest of drawers project we were not sure if the top drawer should be

split to improve the look of the piece. While it would always be one large drawer, the model allowed us to try both options quickly and confirmed that a false kerf in the top drawer would lighten the piece visually. In a trestle table project using a Y-shaped organic base, the model allowed me to play with colour, the shape of the Y and the foot of the trestle to get exactly what the client was after. A model allows an edgy design to avoid falling off a cliff before expensive time

and materials are wasted. Patrick Brennan uses models with his students to explore leg geometries for chairs and benches, and finding the mix of angles that look right for the build. At Leamington Spa College, Jamie Ward encourages students to make extensive use of models to communicate their thoughts, for example to determine if a design needs beefing up, or if a top matches the carcass in a cabinet, all before actual construction begins.



The design process often starts with sketches, colour and shapes can be explored in 2D



Exploring the design in detail in 3D, scale 1:12

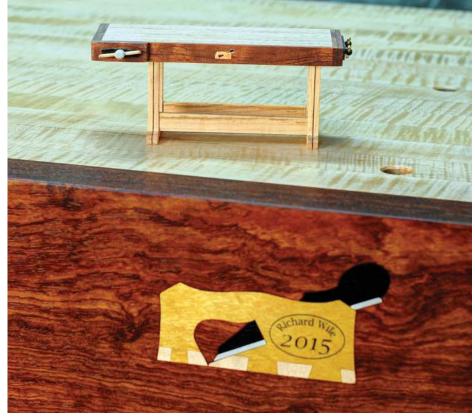


The final project, well informed by the maquette

Models support dialogue with clients Many of us build projects for others, often

to meet requests for vaguely defined requirements around size, shape, colour or material choices. One of the frequent challenges for me is the requirement to build a piece to fit a specific spot, where height, width and/or depth may be constricted, often the client wants it to maximise storage or some other often opposing parameter. This sometimes forces the designer to stretch the rules of design without breaking them; a model helps the client understand if they can live with all the necessary compromises. In cases such as this a physical model built to scale facilitates the communication process immensely with a client who may not be able to fully visualise a drawing or computer rendering. Jamie Ward uses models extensively in both his own work and that of his students; the 3D models confirm that component interactions actually work in execution. Jamie adds that client interaction is enhanced; in fact a local council recently used a student's model to support funding approval for a park bench project to be built by that student - the ultimate benefit.

Allowing the client to hold or examine the maquette built to scale and finished to match the final piece, helps eliminate miscommunication around choices before committing time and materials to the build. I frequently use mixed materials in my projects, and the mix of painted, or different colour parts will completely alter the visual impact of a finished piece. A couple of identical models finished with different colours/materials make the decision much easier, and can go a long way towards avoiding an expensive do-over.

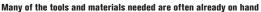


The model can express the finest details if desired

Models also can have a purpose long after the project is complete and delivered to clients: as an ongoing sales and marketing aid. Well executed models of past projects, along with quality photographs of the finished work, make an excellent catalogue and will help prospective clients understand what you do and may streamline the design process with them. In fact, many decades ago, salespeople for various manufacturers such as toolmakers, piano makers and cabinetmakers carried around very detailed models to show prospective clients, many selling today for large amounts at auction.

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Models to finalise a bedroom set design

What do I need to start building models in my work?

As a luthier, working with thin materials and tiny parts becomes an acquired skill, for design maquettes this same degree of precision is not necessary. It does help to have a few tools around for this purpose if you are going to do this more than once or twice. To cut materials a fine-toothed Japanese-style saw works just fine, reducing tearout and yielding smooth edges for glueing. I use my fine-toothed fretting gent's saw made for cross-cutting tough timbers with precision, this also works well in a purpose-built mini-mitre box for precise angled cuts. A model-maker's razor saw works well here too. A small plane fine-tunes the size of materials, something the size of a Stanley 101 or smaller.

Smaller versions of many common tools make work holding and manipulation easier; needle-nose pliers, quick-grip clamps, jeweller's drill, picks, rifflers and hammers can fill out the model-maker's arsenal. Once again, this can go as far as you want it to.

A sharp knife lets you fashion edge

profiles, or saw kerfs that replicate the real thing nicely. Fancy elements such as inlay, figured panels or the like can be printed to scale on a colour printer and pasted on, a piece of veneer with pencil lines simulates a beaded board panel or back easily.

The materials used can be whatever you choose, I have lots of leftover re-sawn material that works very well. Wooden toothpicks, microdowels, modeller's lumber and fittings can all be purchased if material is not at hand. Fastened together with hot-melt or CA glue quickly makes solid models that can withstand moderate handling for the task at hand.

Many woodworkers and teachers, including those who generously contributed to this article, believe that models can play an important role in furniture design. They flesh out the concept design whether you use a pencil or electrons, nothing beats the tactile feedback of a maquette to better inform the design for the maker and those that hire us to execute their visions. For your next project I encourage you to give it a try.

So what about the scale for the model?

The scale of the model is important in a few respects; it should be easy to translate from real dimensions accurately and yet large enough to give an accurate picture. I have chosen a 1/12th scale or 1in to the foot; it is easy to quickly transfer sizes, for example a 48in dresser is 4in wide at this scale and large enough to easily work with. Coincidentally, this is the same scale that lots of dollhouses are built to, so your prototypes could be used in the grandchild's dollhouse once you are done with them. Metric builders can use 1:10 scale, which makes the conversion maths very simple and avoids headscratching calculus when building a quick model for a client to review.

Patrick Brennan is less concerned about scale for his models, he is most interested in seeing the visual relationship of complex angles, so his models often use available scraps or pieces of wire. Jamie Ward believes that a larger scale is better able to show complex joints and is easier to construct, he often uses 1:5, however, increasing to 1:3 allows the maquette to illustrate proper joints; e.g. a chair with mortise and tenons. This raises a good point in that in my experience, the smaller the model, the more difficult it is to execute fine detail, making them more work.

The scale seems to be a true trade-off, build the model large enough to illustrate what you are trying to show. Ultimately, we are woodworkers and this is just one step towards building our project – don't take any more time from building than is necessary. Ref



Matt Brown designed this model to finalise his design for a child's rocker

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Qiangsheng spoon plane

Theo Cook puts this spoon plane to the test



ust when you think you've seen every kind of plane there is, you come across one like this: the spoon plane by Qiangsheng Tools Co, which I picked up for £14.90. I usually make my own hand planes, but the low cost means there's no need with this one.

I came across this plane when I was looking for a tool I could use for a very specific task. I was making a wooden hand plane, which I've made before, but I wanted to make this one more ergonomic. I decided to shape some contours into the form that would make it more comfortable to use.

This spoon plane has quite a specific purpose, and it seemed like it would be the best option for what I needed. I couldn't achieve what I wanted with a spokeshave, as I couldn't find one with quite the right profile, and after experimenting with a few I was struggling to find one for the job. I also considered using

a carving chisel, but once I'd seen this spoon plane it just seemed like the most efficient way to achieve the result I wanted. There are likely to be some power tools out there that could achieve the same result, but I always prefer to make things with hand tools when I can.

Using the plane

You use this spoon plane the same way you would use a spokeshave. The preparation is a little more tricky though, since its curved blade means the grinding and sharpening is a lot more technical. For the plane to work well, the blade has to be ground to the correct radius, so it can be a bit of work to prepare, but if you put in the time it'll be pretty easy to use.

I've found the best way to use the plane is to first draw the area you would like to hollow out, as a guide. The area doesn't have to be a circle, you can use this tool anywhere you want to create a contoured shape. After drawing my guide, I went in with the spoon plane. It comes quite naturally as you are essentially scooping out the material in the area you'd like to shape. It doesn't need to be too neat as I use the spoon plane as the first step, and clean it up afterwards.

Next I went in with a cabinet scraper to smooth out the rough edges, and followed that with a lot of sanding. I formed a cork block into a shape that would work with the piece I was working on, and stuck sandpaper to this. I worked through the grits to get the smooth finish I wanted. When sanding, make sure you work in different directions to ensure a smooth finish. Finish up the last round of sanding by moving with the grain direction on the finest grit. If you're not happy with the result at any point in the sanding process, you can always go back to the spoon plane to reshape the area, and then go back through the sanding process to smooth it out.

PHOTOGRAPHS BY THEO COOK



Start by drawing the area to be hollowed



Then start work with the spoon plane



Use a cabinet scraper to smooth the edges



Sand through the grits for a smooth finish



The spoon plane is easy to use and is good value

10TOGRAPHS COURTESY OF BONHAMS

UNDER THE HAMMER: The Oak Interior

We take a closer look at some of the chairs and settles sold at the Bonhams auction

onhams' unique Oak Interior auctions include 16th-, 17th- and 18th-century carpenter-made and joined early vernacular furniture, often from single-owner and private collections. Sales include refectory tables, panel-back armchairs, coffers, side tables, chests of drawers, back stools, joint stools and Windsor chairs, made from a variety of timbers including ash, elm, fruitwood, oak, walnut and yew.

Related works of art, including treen, early metalware, early carvings in wood and stone, and folk art-related items, are sold alongside furniture in a sale that caters for both connoisseur collectors and clients wishing to recreate period interiors.

Auctions take place at Bonhams' New Bond Street auction house twice a year. Here, we're focusing on some of the best chairs and settles sold at the September auction.



£18,750

An interesting pair of Indo-Portuguese carved giltwood low chairs. They were made in the 17th century, or possibly the 16th century. Each chair is ornately carved, with a floral-themed triangular cresting above a paired row of five arcaded open spindles. These are flanked by leaf and lobed-carved uprights, above a padded seat, which is upholstered in salmon-pink floral silk with tassel fringe, on turned and floral-carved legs. This type of distinctive low giltwood chair originated in the Bay of Bengal. Although the chairs are of local form there are recorded examples with European High Renaissance motifs, which implies they were probably intended for export to the West.

DESIGN & INSPIRATION

Under the hammer

£2125

A Charles II joined oak box-seat panel-back open armchair, made in Lancashire, ca 1670. The back panel is carved with a framed foliate-filled lozenge, below a scroll-profiled and pierced cresting. There are pyramid finials on the back uprights, the downswept open arms are placed on columnar-turned front supports and the sliding seat board is framed by moulded rails. The panelled box-base is carved with bold lunettes on the front.





£6250

A rare Charles II joined oak panel-back open armchair, made in south-west Yorkshire/Derbyshire, ca 1675. The arched, pierced and carved cresting is centred with unusual geometric motifs, and is flanked by mask-carved pointed finials, above flowerhead-carved ears. The back has a narrow panel carved with flowing scrolls, over a stylised palmette-flower-carved larger panel. The carved downswept open arms are raised on ball-turned front supports, and the boarded seat is above a carved front seat rail. The ball-turned front legs are joined by rectangular and narrow run-moulded stretchers all round. This chair exhibits several rare features including the piercing on the cresting rail, which is traditionally solid; the unusual geometric symbols on the cresting; the mask pointed finials; the flower petals carved on the rear uprights (above the arm joints), which are often simply moulded or left plain; the carving on the top and sides of the arms, particularly the pendant leaves near the rear joint; the shaped underside to the end of each arm, which is normally plain or simply rounded; along with the carved front seat rail, which is again traditionally plain, or run-moulded.



A set of seven Charles II joined oak high-back chairs, made in Lancashire, ca 1680. Each chair has a slender arched and fielded back panel framed by pyramid-finial uprights, an arched scroll-carved cresting and plain lower rail.

The panelled seats are raised on block and ball-turned front legs, joined by abaluster-turned fore-rails.

£1375

A Charles II joined oak 'Durham' panel-back open armchair, made ca 1670. The characteristic cresting rail has one large central and two small demi-circles, each filled with a carved stylised plant, and spaced by two pointed projections carved with a quatrefoil motif. The back panel is carved with a floral-filled lozenge, with a puncheddecorated border and a small rosette-roundel at each corner, their design is repeated at the top of each upright and both shaped ears. The broad and run-moulded lower back rail is above a small opening, and the slender downswept arms with scroll-ends are raised on baluster-turned front supports. The seat is made of two boards above run-moulded rails, and is raised on baluster-turned front legs, all joined round by outer edge moulded stretchers.



£3000

A Charles I joined oak panel-back open armchair, made in Gloucestershire, ca 1630-40. Of generous size, the back panel is carved with a quatrefoil and lozenge flower-filled design, and the cresting is carved with paired leafyscrolls, above an integral S-scroll carved top-rail. The remaining rails and uprights are carved with running leafy-cable motifs and the gently downswept arms are on balusterturned supports. The relatively shallow seat is constructed principally from one board. The lower edges of the seat rails are castellated, on inverted-baluster turned front legs, and are joined by run-moulded stretchers all round.





£1000

A set of six George I joined oak dining chairs, made ca 1720. Each has a solid vase-shaped splat mortised into a serpentine-shaped top rail. The panelled seats are raised on pegbaluster turned front legs, and are joined by a turned fore-rail and multiple plain stretchers.

DESIGN & INSPIRATION

Under the hammer



£2125

A Charles II joined oak settle, made in north Cheshire/south Lancashire, ca 1670. The rectangular back is made of three panels, each carved with a quatrefoil pointed-leaf design centred by a rosette. The top rail is chip-carved. The downswept arms are on short columnar-turned front supports, with their design repeated on each front leg with the addition of a central ring, joined by run-moulded rectangular stretchers. The settle originally had a boarded seat, which has now been replaced with a rope seat.





ash child's slat-back open armchair, made ca 1690. The high back has five slats mortised between a boldly scroll-carved and pierced cresting rail and plain lower rail. The baluster-turned uprights have ball-turned finials. The arms are downswept and scroll-ended. The panelled seat is raised on block- and turnedlegs, which are joined by paired-baluster turned fore and rear rails, with similar side stretchers.

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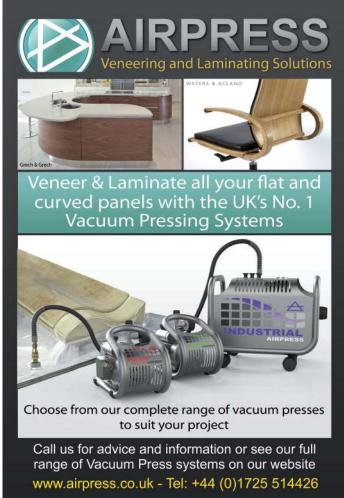
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hile I was training to become a cabinetmaker one master craftsman told an anecdote that has always stuck with me. It was only a short story, but this cautionary tale was relayed to every new student.

The tutor in question was at a show (at least 10 years ago) where makers of different disciplines attended. One evening, after all the visitors had left, a potter casually strolled up to a sideboard that had been made by my tutor. The potter looked at the piece for some time and then, with a significant amount of disdain in his voice, asked 'why do all cabinetmakers make such beautiful things and then destroy their beauty with such disgusting handles!' ... then he walked away.

After the initial shock and anger had passed, my tutor looked at the piece and had to agree that the handles did not add any value to the design. Retrospectively he assessed his design process and had to admit to himself (and subsequently to multiple students) that the handles were an afterthought and never

considered until only a few days before the show.

The lesson here is that all parts of a piece of furniture are of equal importance and need to be 'appropriate' for the design as a whole. There is not necessarily a right or wrong, but the hardware chosen will affect the look and feel of a piece and should be fully considered at inception.

The great news for us makers is that we are in an era where we have a huge choice of hardware, but this can be a double-edged sword – we have so much choice it's hard to sort the wheat from the chaff. I have purchased many handles, hinges, etc. online from reputable sources, where the quality and finish of the product is substandard. We may now have plenty of choice with regards to design but finding the quality that we desire can still be difficult. Also, many 'old' and trusted names have been sold on to third-parties who manufacture the same products to a much lower standard.

Down-specing your hardware is never a good idea. Commercial makers quite rightly look for ways to reduce overheads and

finding more efficient ways of making should be applauded. However, cutting costs by reducing quality is, in my opinion, a great way to lose a repeat order or recommendation.

We are in the business of delighting our clients, and generally people who commission makers don't want a cheap product. If they did, they would be looking elsewhere. A typical area for cost cutting is hardware. This is not an issue that is exclusive to our industry. A friend of mine who runs an architecture practice told that on many occasions the main contractor on building projects will downgrade specifications on door and window handles. He is always appalled by this as a handle is the first (and last) object the client will interact with when entering or exiting the building. A loose or poor-quality fitting will cast a cloud of doubt over the quality of the entire build. This is the same with furniture, a wobbly handle on even the most exquisite piece will ruin it.

A good maker will always choose a quality product and take the time and care to fit them well and fit them to last.

Buster + Punch

Like many of you I have been in pursuit of perfection for many years now and the search for thoughtfully designed hardware, constructed from high-quality materials has led me on multiple occasions to a company that understands what us makers require. In fact, Buster + Punch not only make exceptional hardware they, like us, are also makers. I believe that's what sets them apart from other suppliers and manufacturers — this is what makes them different, because as makers they 'care'.

Buster + Punch understand what we value. They care about feel, texture, proportion, materials and longevity. They do not copy what has gone before. If I had to sum up their products, I would say that their pieces are an evolution of tradition. By which, I mean that the laudable core values of quality and longevity held dear



Handles can radically change the look of a piece







by traditional manufacturers can still be found at Buster + Punch. They have not simply copied but have taken these values and created a product for today's designer/maker. In fact, thanks to modern manufacturing methods (which allow ridiculously exact manufacturing tolerances), their products may even 'better' products that have gone before - a true evolution.

Buster + Punch is a home fashion label established in a garage in East London in 2012, by Massimo Buster Minale, an architect and industrial designer who has a passion for crafting extraordinary but accessible products. They work with solid metals to make lighting, hardware and electrical accessories as well as producing their own line of furniture, like the recently launched POPSTAR Gin Bar, which showcases their hardware as well as demonstrating their skill as designers and makers.

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Even though Buster + Punch adhere to traditional manufacturing values, there is nothing old-fashioned about them. In fact, Massimo will visit many London design and innovation hotspots to seek out new ideas and inspiration. Buster + Punch strive, and have succeeded, in a transformation of the interior design world by creating products inspired by music, fashion and sub-culture scenes - their designs are bold and uncompromising. Buster + Punch have achieved this by looking beyond the obvious places for inspiration, working alongside street artists, bike builders and clothing designers to put together new designs. This gives their hardware a modern and 'edgy' feel that oozes attitude.



The POPSTAR gin and cocktail bar is handmade from solid natural oak with a quilted black leather back panel and a knurled solid steel light fitting



The ROCKSTAR whisky bar is handmade from solid American walnut and has a quilted grey berry silk back panel and a knurled solid brass light fitting



Since their inception Buster + Punch have gained global popularity, with a headquarters in the UK they have expanded into Europe and North America. Their hardware collection comprises solid metal kitchen handles, cabinet pulls, door handles and door accessories. A good range of pull bars, T-bars, closet bars, door lever handles and door accessories are also available. All their hardware is made from solid metals and features Buster + Punch's signature knurling detail, heightening the sensory experience for the user.

The fixtures that come with plates are finished with solid metal penny buttons. Hardware pieces are currently available in four signature finishes: brass, steel, black and smoked bronze.



The quality is outstanding

The moment you hold the Buster + Punch hardware in your hand, feel the weight and see the detailing up close you know this is a seriously great product. When a package containing B+P hardware arrives in my workshop all the other makers who pass by my workbench will look approvingly upon what has been received.

I have always admired companies who take the time and effort to present products well – there are no cheap plastic bags when you receive Buster + Punch handles. Each product is presented in a bespoke box and the hardware sits like a piece of jewellery in the centre. I mention this for two reasons, firstly this is yet another sign of quality and secondly, and more importantly, when a client is making choices about customisation you can take, with pride, ANY Buster + Punch product to a meeting and feel confident that a potential customer will be delighted with what they see.



DESIGN & INSPIRATIONBuster + Punch



The brand has an edgy, modern feel



A full-size brass handle on oak burr



A T handle on oak

Verdict

Buster + Punch handles will obviously not be right for every project, but when you have a piece of furniture that works with the aesthetic of their products you will not be disappointed. I'm always honest in my reviews and it seems odd not to find any fault or potential room for improvement. In this case I just have to say that these handles are simply great, in fact, it would be disingenuous of me to present any other conclusion.

Cabinetmaking is about striving for excellence in both design and execution. If you fail to choose the appropriate hardware, then the pursuit of excellence is futile. Never compromise on the quality of design or manufacture.



We never compromise on our tools so why compromise on hardware?

Buster + Punch

For more information about the company and to purchase products, visit: **www.busterandpunch.com**



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David Waite designs a set of dining chairs inspired by cathedral architecture



ne of the items of furniture that I most admire and enjoy is the dining chair. On one level I love the simplicity of its overall function and form which results in many people not even noticing the object that they are sitting on, while on another level the complexity of a well made chair, where the components flow together seamlessly, provides an object of subtle beauty and inspiration that really appeals to my maker's brain. The dining chairs made by the Barnsley Workshop are an inspiration and favourite

of mine exuding exceptional elegance and craftsmanship in equal measure.

I have often read that designing and making a set of chairs offers both significant technical and economic challenges for the professional maker, especially if the design includes curves and compound angles. The technical challenge is always appealing to me but I was cognisant of the fact that even with the use of jigs and modern machinery, a significant amount of hand work can still be required and the time associated with that risks pushing the price

of such items to a point that many clients are reluctant to pay. That said, a high-quality set of dining chairs with an accompanying table seemed an obvious and worthwhile addition to my growing portfolio of work and would hopefully appeal to a broad section of potential clients. I felt that providing the pitfalls cited above could be minimised, then a small batch production process should be possible, giving me a fighting chance of making a set of chairs at a reasonable price while still allowing a profit margin.



Design

The starting point for my chair's design came from a visit to Canterbury Cathedral where I observed some beautiful stone arched windows allowing shafts of light to slant onto a stone floor. I took these arches as the inspiration for the back of my chair and after sketching several variants, came up with a design where an appropriate amount of negative space was incorporated between the three splats to create a pleasing overall effect. Further sketch work then led to curved back legs and a crest rail shape that complemented the arch design. I envisaged using contrasting timbers for the back splats and chair frame in order to draw the eye towards the back and make it the focal point of the design.

The chair's side rail started out straight from front to back but after talking things through with my former tutor Will Acland, I refined the design to curve into the back legs, with birdsmouth joinery envisaged to allow a crisp intersection of the two components. Playing with the front leg design, I settled on a splayed and tapered design that would not add much in terms of making complexity but offered a subtle refinement compared to a straight and square leg. Similarly, the front rail was curved both outwards to mirror the side rail curves and also on its top and bottom edge to echo the back crest rail curve. I envisaged a traditionally upholstered drop-in seat for the dining chairs that would produce a nice dome shape and provide the user with appropriate support.

Another key challenge with chair making



The chair back: the focal point of this design

is ensuring that the final product not only looks aesthetically pleasing, but is also extremely comfortable to sit on. Looking at numerous chair designs featured in this and other publications, as well as referencing the extremely useful book Human Dimension and Interior Space: A Source Book of Design Reference Standards (Watson-Guptill; Revised ed., 2014), it was clear that the basic dimensions of a dining chair are fairly standard but using these dimensions alone is no guarantee of producing a comfortable chair. Many subtle factors, e.g. back leg shape, rail and splat curvature, along with angle or rake of the side rail from front to back and seat

height and composition can have a huge influence on the final feel and comfort of the piece. Given these complexities I, like many before me, decided to invest time in making a prototype, to enable me to test the comfort, refine the proposed design and give me the opportunity to prepare the jigs that would be required for the batch processing. There is no denying the prototyping work was time consuming and mirrored much of the construction work described below for the actual chair, but I viewed it as a oneoff investment and it proved invaluable in determining the radius of the curve of the back and crest rail, the position of the back splats and the rake of the side rails and seat.



Shafts of light inspired by the windows in Canterbury Cathedral



Computer modelling
Once my design ideas had fully solidified, I used a combination of SketchUp and Rhino CAD software programs to draw up the chair. These programs proved invaluable in allowing me to determine the complex angles and geometry of many of the intersecting components. By far the most complex modelling was of the back frame of the chair where the legs curved in two dimensions and were turned outwards by 18° compared to the front legs allowing the curved side rails to intersect with them perfectly on their edges. I left a small flat on the back leg where the side and back bottom



Prototyping is vital to check the chair is both visually beautiful and comfortable

rails intersected, which was barely noticeable once assembled but resulted in much easier joinery downstream.

The modelling also allowed me to determine the compound angles required for the curved crest rail to intersect with the back legs and to see how each curved back splat intersected with the top and bottom rails of the back frame. With this modelling done, I next drew up a full scale plan and side view of the chair on hardboard showing all of the critical dimensions and geometries, which could be used as a reference in the making process.

Dining chairs

Timber selection

The visual impact of the chair hinges on the use of contrasting timbers – for this project, American black walnut and ripple sycamore were used. Sufficient timber was bought to make a complete dining suite, to ensure uniformity of colour and grain across the set. After many telephone conversations with suppliers, I was lucky to source a large, single board of beautiful ripple sycamore from Timberline in Kent. I chose to cut my own veneers so that I had complete control of grain selection and veneer thickness, especially important for the tabletop.

The black walnut came from Whitmore's Timber, who I always find good value and very user-friendly, allowing me to spend an afternoon in their yard self-selecting several nice wide 50mm-thick boards. Once back in the workshop, these boards were broken down and machined to initial component size, paying careful attention to grain pattern. The straightest grain boards were used for legs and side rails, and where possible boards with curved grain matched the curved components in the design such as the crest rails.



Sorting through a stack of black walnut at Whitmore's Timber

Chair construction

The four chairs were made in a batch process with machines and jigs being set up once and the components for all four chairs machined at the same time, before moving on to the next stage.

Back frame

Three large curved jigs were created from MDF for the back leg profiles. The first jig was dual purpose, allowing the front and back curves to be produced for each leg on the spindle moulder using a bearing-guided spiral cutter block. Each leg was then rotated by 90° and held in a separate left and right-handed jig to allow the inward facing curves to be machined again using the spindle moulder. Each leg was mortised with a Domino jointer at the requisite positions to

allow the crest, side and back bottom rails to be joined once machined.

Next the complex crest rail was machined. Firstly, the square blank had the compound angles accurately cut on the tablesaw and was Dominoed to allow it to meet the splayed back legs. Once this had been done, a dual-purpose jig was made to allow the concave inner and convex outer curves of the crest rail to be machined on the spindle using a tilted rebate cutter and ring fence,

being careful to remove small amounts of waste during each pass of the cutter block. Finally, the top sweeping curve of the crest rail was machined using another jig and spiral cutter on the spindle.

The curved bottom back rail was produced in a straightforward manner using a curved jig and the spindle moulder to produce the required convex outer curve and was again Dominoed to allow it to be joined to the back legs.



Back splats

Ripple sycamore veneers were cut from the single board on the bandsaw and then sanded to 3mm thickness, being careful to keep them in consecutive order to ensure good edge grain matching. A curved former was then created from MDF and blue foam of matching radius to the front curve of the back leg and three of the sycamore veneers combined with epoxy resin in the bag press

to produce each curved splat. Each splat was carefully squared up on the tablesaw using the former as a support and also to act as a datum and square reference against the saw's cross-cut fence. Arcs were then cut into each splat side to give the desired shapes using a flexi ply template at the router table.

Finally, grooves were routed in the back leg frame to house the splats, a point fence being

used to allow the back leg groove to follow the front curve of the leg. The back frame was then glued up using epoxy resin with an angled blocker used to ensure even cramping pressure. It was gratifying to find that after glue-up, only a small amount of handwork with a spokeshave was required at the junction of the crest rail and each of the back legs to blend these components together seamlessly.



Finished back splats on the former used to produce them



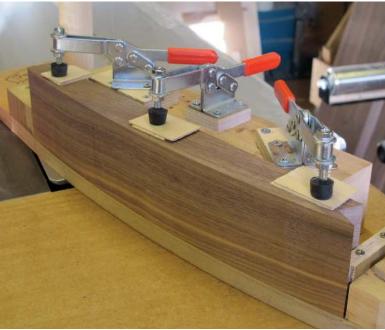
Chair backs being glued up

Side rails

The blanks were left extra wide to allow for the rake to be machined on each after the birdsmouth joinery and outer curves were cut. It was important to machine the rake as the final operation so that both side rails remained as identical components during the spindle moulding operations and a single jig could then be used to machine the curve on each. First each component had Domino mortises cut in their front and back

faces at 90° and 55° respectively. Next the birdsmouth was produced on the back edge at the spindle moulder with the rebate block tilted back at the requisite angle to ensure the joint met perfectly with the back leg (the CAD modelling proved critical in getting this geometry correct and a test joint was made to double check fit before committing to the actual components). Then the outer curve of each side rail was machined at the spindle moulder in a jig using a bearing-guided spiral

cutter. A 1° rake was then cut at the tablesaw on the top and bottom edges from front to back on each side rail being careful to ensure a left- and right-handed component was produced. Finally, a curved rebate was cut on the inside top face of each side rail with a router and point fence to accommodate the drop-in seat frame. A matching pair of rails were held together with double-sided tape during this operation to provide enough support for the hand-held router.



Side rail with birdsmouth ready to be shaped on the spindle moulder



Completed side rails with rebates cut for drop-in seat

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Front frame

Machining the front legs and rail was straightforward. Dominos were first cut in the component while still square and then jigs were used to shape the components at the spindle moulder with a bearing-guided spiral cutter.

Care was taken to ensure the order in which both the tapers and curves were cut to always ensure that a flat or concave face was available for the jig to reference against and packers were used to provide support and make up for material removed in the previous cut. The rebate on the inside face of the front rail for the seat frame was made concave to match the scoop of the rail. The front legs and rail were then glued up in a similar fashion to the back frame.





Batch production: machined components and four front frames being glued up

Final assembly and finishing

The front, back frames and side rails for each chair were prefinished ahead of the final glue-up. Each chair was then dry assembled on a flat level MDF sheet and angled and curved clamping blocks prepared to allow even clamping pressure to be applied from front to back. Two Bessey band clamps were also employed to apply even pressure at all four corner joints of the chair. Once all the joints were checked and closed up nicely, the chair was glued using epoxy resin, left in clamps for 48 hours and then for another three days out of clamps to allow the resin to fully cure. Large walnut corner blocks were then glued and screwed to the internal corners of the chair frame and each chair was then hand sanded to 360 grit with all edges softened with a fine chamfer. Each chair was finished with Danish oil applied in several fine coats and denibbed between coats with a Scotchbrite greypad.



Upholstered seat I am fortunate to have an excellent

upholsterer close to my workshop who I worked closely with to make the traditional drop-in seats. The curved components for the frames were cut from 50mm-thick beech at the spindle moulder. Dominos were used to joint the frame and an 8° chamfer was applied to the top face of the frame to soften the transition from the upholstered seat to the chair frame. I selected a natural leather hide for the seat cover to match the sycamore. My upholsterer was able to obtain a sample of the hide before purchasing to check the colour match and thickness. It was then possible to determine the exact size of the frame.



Traditionally upholstered natural leather drop-in seat

Reflections

Designing and making these dining chairs was not a simple project, and I take my hat off to all those makers who practise the art. If I look at the economics, it's fair to say that the vast majority of my time was spent prototyping, refining the design and jig making - if I had to do this afresh every time I made a set of chairs I would not earn a penny! However, now that I have a design I am happy with, and all the necessary jigs needed to make it, the pricing equation is more in my favour. I feel confident I could make a set of four or six of these chairs reasonably quickly and therefore, at a price point clients should find acceptable. F&C

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The biggest show in a decade

Hendrik Varju attends an impressive IWF to see what's new and get a feel for the state of woodworking on the world stage

or those of you who have never been to the International Woodworking Fair (IWF) in Atlanta, it is truly a sight to behold. Held every second year, it is said to be the second largest woodworking show in the world and the largest in North America. There is another show in Las Vegas on the off years, but I've never been to it. Atlanta is a much shorter flight from Toronto and the IWF is the larger show, so I've been happy to attend this one since 2006 – this was my seventh show in a row. This year it was held from 22 to 25 August.

While this is a trade show and primarily geared towards business people, they will not turn away other woodworking enthusiasts and I've met people from all over the world who travelled to this show just out of personal interest or because they run a small woodworking business like mine. It is

a spectacular show which you really must experience at least once. You can spend just two or three days at the show and then spend a few more days exploring Atlanta as a tourist.

The total experience

I thought you might wish to know the logistics of such a trip given I have made it so many times. In January before the show I use the IWF website to book a hotel room. The IWF reserves massive blocks of rooms at local hotels so that show attendees are given special rates. It is still rather expensive to stay in a large American city right in the downtown core, but if you don't mind a short subway ride (the 'Tube'), much less expensive accommodations can be found further from downtown. You'll also need to register for the show and pay a registration fee. Then I book a flight online and I'm all

set to go. Since I now know the city well, I take the subway from Hartsfield-Jackson International Airport to the downtown area and there is often a stop within a five to ten minute walk of many of the hotels. The first year I attended I paid about US \$50 for a cab only to realise the subway costs about \$2.50 and is much faster.

The IWF even supplies shuttle buses from many of the more popular downtown hotels to and from the show daily. For this past trip, each morning my hotel supplied a full breakfast included in the cost. Then I would walk about two minutes to a busy corner outside of a larger hotel where there would always be two or three huge buses waiting for people to arrive. The buses are air-conditioned, as is the show, which is important given that temperatures in Atlanta can easily reach into the mid 30°C range at that time of year.

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What will I see?

The IWF is held at the Georgia World Congress Center. When I attended in 2006, all three buildings, called A, B and C, were filled with exhibitors as well as the many hallways in between. That was the 'heyday' when woodworking businesses were thriving and the hobby was super popular. But when the worldwide financial meltdown happened in 2008, subsequent years clearly showed a shrinking of the show to the point that it only filled buildings A and B, A being a much smaller building. And often small parts of those buildings were cordoned off. There were just not enough exhibitors to fill the space. In fact, in 2006 there were dozens of large German manufacturers represented. They would have massive assembly lines like you'd see in a factory set-up and in fully working order using 600 volt power. I was amazed to see assembly lines much larger than my house in full operation right there on the show floor. A worker would load lumber into a machine on one end and finished parts would pop out the other end hundreds of feet away. These numerous German companies started to withdraw from the show after 2008 as machinery manufacturing clearly started shifting from Europe to Asia, at least in terms of machinery being purchased in the United States. It was a troubling time.

The 2018 IWF was the biggest 'turnaround' year I've seen since 2006. Clearly manufacturing in the United States is ramping up and the economy is humming along. Whether that process is on solid ground or is just giving us a 'head fake' remains to be seen. But the uptick in manufacturing and general spending was palpable at this show. This time the show filled all of buildings B and C, which are the larger buildings at the Congress Center, along with further booths in some of the hallways and concourses. The 2018 show gave a sense of economic recovery in the woodworking industry, which I have not seen in some time.

If I had to give you one warning about the enormity of this show, it would be for you to wear the best pair of shoes you own. I managed to get in to see my chiropodist just the day before I flew out of Toronto to adjust my orthotics for the road ahead. I know it sounds crazy, but if you walk through the two buildings and spend just an average of five minutes at each booth I don't believe you can see the entire show in the full four-day period. Of course, you can make it through the show because there are many booths that will have no relevance to your interests. But you should plan on two very long show days if you would like to get through both buildings in any detail. I estimated my total distance walked at the show at approximately 60km over the four days, or 15km per day. That includes some walking after hours in the downtown, going to restaurants, etc. But I can assure you that you need to be ready for this marathon of walking if you wish to see most of the show. In fact, there are always at least a couple of booths at the show selling insoles or offering 'foot



Freud Tools displays an impressive number of router bits and CNC cutters



The outside of Building C with the gorgeous Mercedes-Benz Stadium in the background



A bird's-eye view of Building C where hardware and cabinet materials are displayed

massage for hire'. My suggestion is for you to pace yourself and take many breaks. Fortunately, the show has many places to rest, including food establishments. They even had an outdoor beer garden with ice-

cold beer and southern food. As a member of the media, I managed to score some free tickets for some of this food and drink and it offered a welcome break from the otherwise non-stop walking.

Companies represented

As I said earlier, serious woodworking enthusiasts can register for the show. You do not need to own a woodworking business. However, keep in mind that each year there seems to be less and less to see that would be relevant to a small one-man operation like my own business. Passion for Wood. Back in 2006, many of the small woodworking machinery manufacturers were there such as Jet/Powermatic (WMH Tool Group). Delta Machinery, Porter-Cable, Steel City Tool Works, Grizzly, General and General International, Bosch, Freud, Milwaukee, Dewalt, Rikon, Laguna and so on. At this point in 2018, the vast majority of small tool and machinery manufacturers are simply not there. Some have closed up shop and those that are still running have clearly never fully recovered from the economic contraction of a decade ago. Small woodworking businesses have been replaced by much larger mass-production facilities and the woodworking hobby has also slowed greatly, making it less relevant for small machinery manufacturers to be at the show. Many have chosen to use their advertising dollars differently, targeting online sales and social media advertising rather than having a physical presence at the show.

Companies still represented at the IWF

2018 that fit into this smaller tool category included SawStop, Festool and, our Canadian darling, Lee Valley Tools and Veritas. Freud were also there but they were pushing their larger saw blade line designed to cut soft metals and plastics. And Laguna clearly earns most of its revenue with CNC machinery these days. Companies like Rockler, Woodcraft and many small tool companies were simply not there. To be fair, though, I was also told by IWF management that there was a long waiting list of companies that wanted to exhibit in the show but could not book a space. There weren't enough companies on that waiting list to justify opening up a whole other building, but there were enough to make it a shame they couldn't get in. My feeling is that companies that didn't want to commit well before the show were caught with their pants down when President Trump's economic policies unexpectedly kicked in. Whatever your personal feelings about the President's policies, they have clearly created an economic 'shake up' that hasn't been seen in some time.

I spoke at length with a SawStop representative, got some quality advice from Festool about an issue a student of mine in Houston had been having, chatted with the staff and editors of several woodworking magazines and Lee Valley/Veritas too. I attended a Freud media event and met with other company representatives about their latest product lines. I hope to write tool tests and reviews on a number of new tools I found at the show. Some of the new items I saw included a new sliding table by SawStop, new pocket planes and a new shooting board set-up by Veritas, a new featherboard device and fence fine adjustment tool by Bow Products, a new mini cyclone systainer by Festool, an innovative new clamp by Bessey Tools called the GearKlamp, textured veneer sheets by Cedan and a new PaperStone sheet material by Cara Green.

Remember that the IWF is not just about machinery and tools, even though I think most woodworkers gravitate towards those items. The show has nearly one entire building devoted to cabinet hardware, lighting (such as LED cabinet lighting), veneers and sheet goods, solid wood suppliers and so on. There is also a 'New Product Showcase' and the Design Emphasis Student Furniture Design Competition, which I've reported on for past shows. It's great to see the strong design skills of new woodworkers just getting into the workforce from their various college programmes.



Waterfall by Brandon Lucus from Western Piedmont Community College is a finalist in the Accent Tables category. Live edge walnut with pigmented ocean-blue epoxy resin

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Bookmatch Coffee Table is the Winner in the Accent Table category. Brian Klik from the Seattle Central Wood Technology Center crafted this table with bookmatched walnut burl veneers, maple and through tenons

Worth the trip

So to sum up the IWF 2018, I was glad to have the opportunity to attend once again. Given how much time we spend isolated from the world due to all the technology that allows us to communicate remotely, it is refreshing to walk into a venue where you can rub shoulders with some of the important people in our industry. I've been fortunate enough to have attended many woodworking shows here in Canada over the past 25 years, but there really is nothing quite like the enormity

and comprehensiveness of the IWF. There is a general feel that the IWF and the industry as a whole is turning more and more towards mass production and large materials handling operations, as opposed to small one man woodworking businesses like mine. However, if you look hard enough and take the time to speak with individuals over lunch or over a beer, there are many valuable nuggets of information to collect. IWF 2018 was well worth the trip.



David McCaffree of the Seattle Central Wood Technology was a finalist with his Demilune table. It features solid beech and bookmatched redwood burl veneers bordered with bloodwood inlay



IWF 2020

The next show will be held 26-29 August 2020.

Should you wish to attend, visit the website in early January 2020 when tickets will go on sale.

For more information, go to **www.iwfatlanta.com**



MINI TEST Tapered Tenon Cutters

t's incredible when you think about it how many different things you can make from just a basic set of hand tools; tables, boxes, wardrobes, bookcases and benches to name a few. Chairs, on the other hand, seem to conform to a different set of rules and tools which put them out of reach for the general woodworker. In fact, come to think of it, there was a time here at F&C when the suits would do anything to avoid putting a chair on the front cover fearing they were too difficult to make and would therefore deter would-be readers from picking up a copy of the magazine.

Those days have passed thank goodness and we now embrace all aspects of furniture and cabinetmaking. Not unsurprisingly the range of tools and equipment to make this form more accessible have also moved with the times with one essential piece being a tapered tenon cutter. Ahead of an upcoming article I've been familiarising myself with the Tapered Tenon Cutters from Veritas. Available in sizes %in, 1/2in and 5/sin they will allow you to shape tapered tenons suitable for most Windsor-style projects. There are two ways you can use them, either rotate the component within the tool like an enormous pencil sharpener or the other way round. There's some adjustment available to fine tune or alter the angle of the taper to suit your reaming tool and also to set up the most efficient cut for the type of timber to avoid clogging and tearout. The high carbon steel blade is ground with a 30° bevel and machined flat on the opposite side so will work straight out of the box. You will achieve superior results however if you add a micro bevel of 1° or 2° to the factory ground edge.

These tools double up as dowel cutters as well if you purchase a second curved blade. There are some restrictions on which sizes are suitable for conversion which you should check before steaming ahead. It's well worth producing a range of sample pieces, both mortises and tenons that marry up nice and tight to use as a reference for real projects. Doing so will, to some extent, enable you to standardise components in an almost batch work production line. It will also help you over the excitement of owning a new tool and putting tapers on every available piece of round stock in the 'shop.

Sharpening the blades could be tricky if you don't have a suitable honing guide or struggle with freehand sharpening, especially the curved blade. That said the curve doesn't have to be an exact radius or even a consistent arc to work.

From: www.classichandtools.com

Axminster Trade range



The new Axminster Trade range – aimed at bespoke furniture and joinery makers, and keen home woodworkers who want a higher specification machine – includes a bandsaw, tablesaw, two spindle moulders and a unique dust processor.

The Gyro dust processor is compact, portable and requires no assembly. It is designed with ground-breaking axial centrifugation technology. The processor has won several awards including the Red Dot Design Award. The new bandsaw is designed to be the very best 15in bandsaw on the market with many exclusive features. The welded steel frame is over-sized with extraordinary rigidity, allowing very high blade tensions. The T-square style fence maximises accuracy with complete adjustability for aligning to the blade. Uniquely, the precision ground cast-iron table has a titanium nitride coating, which creates a smooth surface and protects the table from rust. The tablesaw is designed to take some

of Axminster's unique attachments such as products from the UJK Technology range. It is able to mount the UJK router insert plate or UJK router lift in the cast-iron side extension table. In addition, there are a number of very useful accessories available for the tablesaw: dado blade set, overhead blade guard, sliding table, fence for sliding table and router table fence.

Finally, there are the two spindle moulders: deluxe and CNC. The CNC model is fitted with a custom-built Siemens control system, which gives it precise control of spindle height, spindle tilting angle and spindle speed. The result is the user can mould profiles with optimised accuracy and achieve perfect results. The deluxe model comes in a 230V and 415V version. The spindle is of the quick-release type, which means that you can change the machine into a router, using the supplied collet chuck.

From: www.axminster.co.uk

Makita Portable Fans



Ideal for the workshop, these neat, spacesaving fans from Makita measure just 180mm in diameter but still create a significant but comfortable air speed. The CF101DZ 12VMax Portable Fan can be powered by AC mains power, or by DC battery operation using a Makita CXT battery. Using Makita's 6.0Ah LXT Li-ion battery, the new DCF102Z 14.4V/18V LXT fan achieves outstanding run times with and without oscillation. Both models have three speed settings.

From: www.makitauk.com

Precision instruments

In this month's Kit & Tools we're turning the spotlight onto machinist's callipers ranging in price from £15 up to £440. While these tools look fairly similar and will all do the same job there are a couple of things you might like to consider before deciding which one suits you best. There are three types of calliper: Vernier, dial and digital. Vernier gauges use a sliding scale to capture measurements in either metric or imperial on the same tool. They're the oldest style and perhaps the most robust as there is very little to go wrong mechanically or electronically. The downside is that they aren't always the easiest to read. Dial callipers, on the other hand, are either metric or imperial and come with a watch-style dial that requires you to take readings combining information from a sliding scale and the dial. Be wary of cheaper versions as they don't take kindly to being dropped. Digital gauges offer the best of both worlds, often with metric and imperial readings displayed in either fractions or decimal points in a single window. You'll need to remember two things if this is your preferred choice: always zero the tool before taking a reading and have a spare battery on standby at all times.

Kinex Parallax-Free Monoblock Vernier Calliper 150mm



This is a good quality manual Vernier calliper. The Vernier scale is a generous 50mm long, giving a resolution of 0.02mm but it is as easy to read as a rule with just whole mm graduations. On the top, it also has a 11/4in long imperial Vernier scale giving thousandths of an inch. The sliding jaw is accurately ground from a solid block of hardened

stainless steel (monoblock) and the relieved faces of the scale read correctly and consistently, whether you are stronger with your left or right eye (parallax free).

From: www.workshopheaven.com

Axminster 100mm Pocket Vernier Calliper

This is a top-pocket-sized Vernier for the accuracy-conscious woodworker or craftworker. The movable head locks for comparative measurement using a small thumbscrew. The easy-to-read, non-reflective 100mm scale is calibrated to a resolution of 0.05mm. The four functions include external, internal, depth and distance from an edge measurement. It comes with a leatherette case.

From: www.axminster.co.uk



Axminster Digital Electronic Callipers

These hardened stainless steel, general duty electronic callipers are available in three sizes: 150mm, 200mm and 300mm.

All three sizes measure with a resolution of 0.01mm/0.0005in.

Useful features include push button metric-to-imperial conversion, a zero setting button and a locking screw for transference of measurements or settings. The 150mm and 200mm versions are fitted with a fine adjustment roller, which allows for quick and easy precise measurements with a clear LCD display of the result. The four measuring options are external, internal, depth and step.



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Starrett 798B 6/150 Water-Resistant Digital Calliper



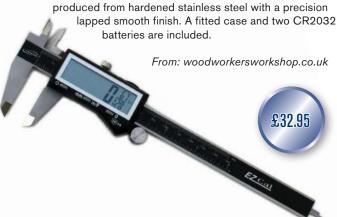
Starrett 799a-6/150 Digital Calliper

Starrett's digital callipers are consistent, accurate and reliable. When you slide the calliper to a new measurement it responds instantly, and the callipers can be set to zero at any position. The display shuts down after five minutes of non-use. If you then press the on button your reading re-appears, even if you had zeroed it at a different setting. The callipers are made from precision ground, hardened, stainless steel.



iGaging Digital Calliper EZ-Cal 6in

The iGaging is a high quality digital calliper and, with the largest LCD display available, it is easy to read. It is is ideal for measuring thicknesses and groove widths and can be used as an accurate depth gauge. These callipers have a 150mm (6in) capacity and the display reads to 0.01mm (0.0005in or 1/128in) at the press of a button. There's also a handy decimal/fraction conversion chart on the back. Precision ground stainless steel jaws allow precise, repeatable outside, inside, depth and step measurements. It has a quick measuring speed of 120in per second. All iGaging EZCal verniers are splash water, oil and dust resistant. They are



These digital callipers from Starrett are water and dust resistant; they are consistent, accurate and reliable. The buttons are made from hard plastic and click positively when you press them. When you slide the calliper to a new measurement it responds instantly and smoothly. The callipers

can be set to zero at any position, which is handy for measuring variance between components. The display shuts down after five minutes of non-use. If you then press the on button, your reading re-appears, unchanged, even if you had zeroed it at a different setting. They are precision ground from hardened stainless steel. The callipers have a capacity of 150mm, a display resolution of 0.01mm and a measuring accuracy of +/- 0.001in at up to 4in, +/- 0.0015in at 4in to 6in. The lithium CR 2032 1.5V battery is supplied packaged separately for you to install, so your new callipers have a full charge. They are supplied in a fitted, foam-lined plastic case.

From: www.workshopheaven.com

GemRed Electronic Digital Calliper

This high precision digital readout calliper has a very robust all stainless steel construction. It can be used for internal, external, step and depth measurements. Its accuracy is 0.01mm (0.001in) and has a maximum measuring distance of 155mm (6in). Zero can be set at any point along the range, and the display is easily switched from a metric to an imperial reading. It has an auto shut-off feature and takes a standard SR44 battery, which is supplied.



Mitutoyo Absolute Digital Calliper 0-12in

This digimatic calliper allows you to take reliable measurements. Its benefits include an AOS (Advanced Onsite Sensor) induction-type encoder used in top-of-the-line ABS coolant-proof callipers. Thanks to the adoption of the electromagnetic induction type ABS encoder, this calliper can be used without concern for contamination on the scale face during measurement. The detection signal is not affected by dirt (water, oil, etc.) on the surface of the scale (except 300mm type). The slider provides smooth, stable and comfortable operation. The ABS (ABSOLUTE) scale requires no origin setting after poweron and has no limit to response speed.





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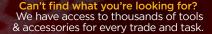
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This month we're in Oxfordshire visiting one of Britain's grandest stately homes

ne of the largest houses in England, Blenheim Palace is a masterpiece of English Baroque architecture. It includes a priceless collection of paintings, furniture, sculpture and tapestries and was designated a UNESCO World Heritage site in 1987.

History

On 13 August 1704, John Churchill led the allied armies to victory over France at the Battle of Blenheim. In recognition, Churchill was made 1st Duke of Marlborough, and was also given park land, Woodstock Manor, and £240,000 to build the Palace as a gift from Queen Anne. Blenheim Palace was designed by Sir John Vanbrugh (assisted by Nicholas Hawksmoor) in the English Baroque style; work began in 1705 and was completed in 1733. Grinling Gibbons was commissioned to create the carvings on the gateway. Sarah, the First Duchess of Marlborough, took an active role in the construction, interior design and decoration of the Palace. Between 1764 and 1774 Lancelot 'Capability' Brown transformed the 2000-acre park round the Palace.

The Palace was opened to the public for the first time in 1950. It is still home to the Spencer-Churchill family, and is currently home to the 12th Duke.

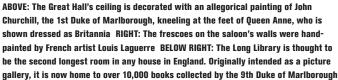


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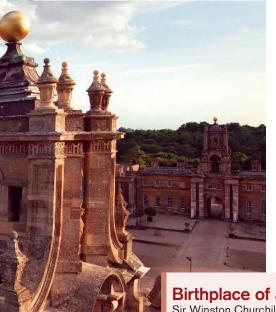
DESIGN & INSPIRATION

Blenheim Palace











Sir Winston Churchill was born (unexpectedly prematurely) at Blenheim Palace on 30 November 1874, during a visit by his parents Lord Randolph Churchill and Jennie Jerome. Winston Churchill's grandparents were the 7th Duke and Duchess of Marlborough, his uncle was the 8th Duke and his cousin was the 9th Duke. The Palace now holds a permanent Churchill Exhibition, which includes photographs, letters, artefacts and access to the room where he was born. There is also a Memorial Garden and a 'Churchill Trail' taking visitors to his favourite places in the Palace and the park.



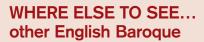
Winston Churchill was born in this room at Blenheim Palace in 1874

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What to see

The State Rooms are open to the public, highlights of the collections include the Marlborough Tapestries and furniture by André-Charles Boulle. Several themed tours are available, such as the Downstairs Tour, which visits the servants' quarters; the Upstairs Tour, which covers the State Bedrooms; and the Duke's Floor Tour, which explores the Duke of Marlborough's living quarters.

Exterior attractions include the landscaped park and the Formal Gardens. The park is home to several Sites of Special Scientific Interest including the Great Lake and the ancient oaks in High Park. Visitors can also see Vanbrugh's Grand Bridge, the Column of Victory commemorating the Battle of Blenheim, the Temple of Health and the Temple of Diana.



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The Blenheim Tapestry, depicting the first Duke of Marlborough's victory at the Battle of Blenheim, hangs in the Green Writing Room



ABOVE: The Third State Room includes some fine examples of furniture by master cabinetmaker André-Charles Boulle BELOW: Fountain in the Italian Garden





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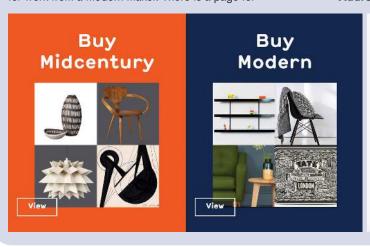
In this section of the magazine we bring together the best furniture and woodworking related content from social media. Here we'll recommend who to follow, where to comment and which online communities to join. We also feature projects we love, readers' letters, comments from the Woodworkers Institute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

Website: The Modern Marketplace

The Modern Marketplace website has recently been relaunched with a smartphone-friendly layout and a revamped company directory. You can choose whether to browse Midcentury vintage items or opt for work from a modern maker. There is a page for

each contemporary designer or midcentury dealer plus vintage and modern retailers with social media links and images for you to peruse.

Address: modernshows.com/the-modern-marketplace





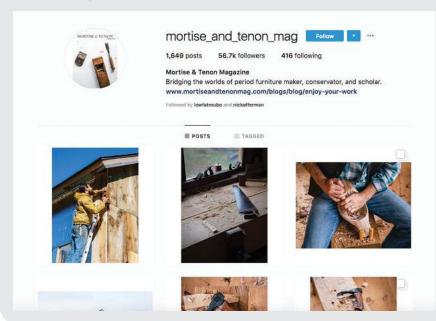
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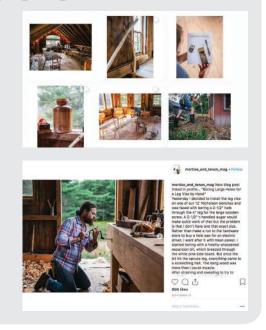
Mortise & Tenon is a biannual print magazine celebrating the preservation, research and re-creation of historic furniture. You can get a feel for the magazine's content from its Instagram account where you can see photos and videos of projects,

hand tools and events. You can also find out more about *M&T*'s editor in this month's Shop Talk on page 80.



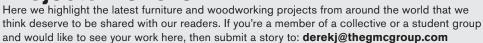
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Projects we love





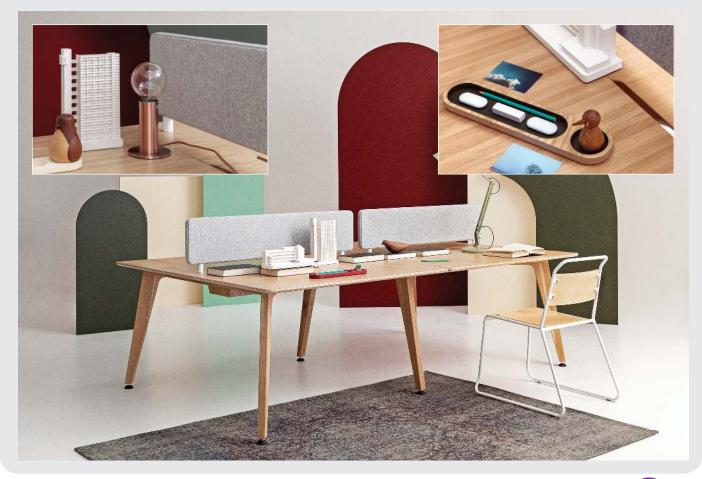
Theodore Bench Desk System by Liqui Contracts

British furniture and lighting manufacturer Liqui Contracts launched the new Theodore Bench-Desk System at this year's 100% Design event. The System is named after the Theodore Roosevelt desk (made in 1903, the Roosevelt desk served a number of US presidents and is now used in the main by vice presidents). A solid piece of craftsmanship, the Roosevelt desk has stood the test of time. In a similar

manner, the Theodore Bench-Desk System by Liqui Contracts is designed to serve as a smart, useful and durable platform for any number of work-related activities.

The Theodore Bench-Desk System can be used in multiple configurations. It is manufactured in Britain from 100% FSC certified and sustainable timber. Warm and tactile, the desk's frame is made of solid oak and its top is made of natural oak veneer birch ply. Liqui Contracts prides itself on its proactive and conscientious approach to sustainability: offcuts from the Theodore desk (waste material that is typically discarded) are used to fashion stationery trays that accompany each desk. In addition, desks can be specified with optional acoustic foam dividers.

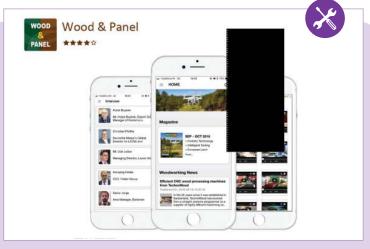
Address: www.liquidesign.co.uk



App: Wood & Panel

Wood & Panel, the online industry magazine, has launched an updated version of its mobile app. The app now features easier navigation and provides more woodworking industry news, videos and interviews. It is also now easier to switch between Wood & Panel Europe and Wood & Panel USA. As well as regular news updates, the app allows you to mark your calendar and plan your trips for upcoming woodworking events. You can also access the magazine's archive. The app is suitable for both Apple and Android devices.

Address: www.woodandpanel.com/mobileapp/



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An airbrush with the past



IMAGE BY IAN HALL/BRIAN JORDAN/GMC PUB

This month we're going back to April 2003 and issue 75 for another look at Brian Jordan's award-winning sideboard



rian Jordan retired at age 50 after 32 years as an aerospace engineer and executive. He was always fascinated by woodcrafts and took a two-year City & Guilds course at Gloucestershire College of Art & Technology (Gloscat) finishing in 2002. He won distinctions in all aspects of his work and a Diploma from Gloscat. On top of that he entered his college masterpiece in the student category for the prestigious Furniture & Cabinetmaking completion in the same year and came first. There are a couple of features which aren't that obvious from Ian Hall's picture that I'm sure didn't go unnoticed by the judges, one of which makes this a technically challenging piece to make, the other an indication of Brian's attention to detail as a designer.

Each face of the sideboard is curved, including the back, requiring a series of formers and repeat processes to generate identical panels including doors and drawer fronts. It's a design that almost doubles the amount of work required to make a cabinet suitable for holding drawers and suspending doors as a series of straight and square openings have to be built as well.

As anyone who has ever worked with curves will tell you, the moment you decide to veer away from straight and square the level of complexity increases almost exponentially as the knock-on effects reverberate around the design. Take for example the hinges required to swing a door with a spine that's a compound curve. There's a lovely line in Brian's original article where he talks about the challenge of identifying pivot points for his doors and having 'lumbered himself with making bespoke cranked centre pivot hinges'. It's a salient point for all budding designer-makers. Brian solves the problem by making knife-style hinges of which the top set integrates into some discrete pulls for the doors.

The other detail I'm going to bring to your attention is one I haven't seen before on a piece of case furniture – the bottom rails that make the frames are curved along the front and straight along the sides. Nothing too unusual there perhaps, until you hear that they are chamfered away from the bottom edge to reduce their visual impact while retaining the much needed strength, in the case of the front rail, to keep the structure rigid. A similar technique is used to lighten the appearance of the seats on Windsor-style chairs, for example.

There's absolutely no doubt that Brian learned a terrific amount about design implementation in terms of construction during the build. It's tempting sometimes to resolve difficult issues by simplifying a design but it's a missed opportunity to develop new skills if you tread that path. And when things that on paper shouldn't be a problem turn out to be one, it's how you solve them that counts. One such problem came from veneering boards of MDF lipped with sycamore for the shelves only to find the lipping ghosting through the face veneer. The solution: apply a second veneer over the top. If only all problems were as easily solved.

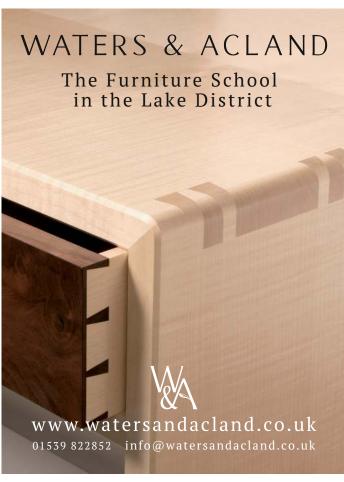
Next month

Next month we're heading back to July 2001 and issue 54 to look at Robert Reid's maple and walnut desk.



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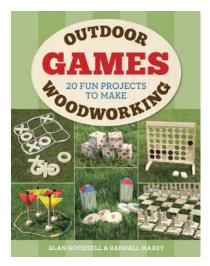




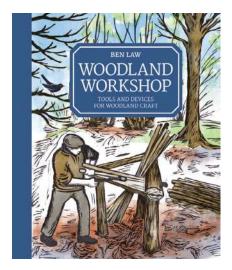
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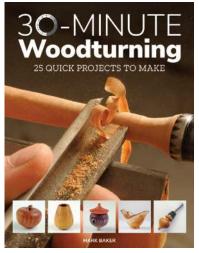
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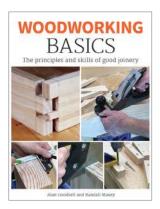
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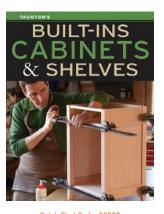
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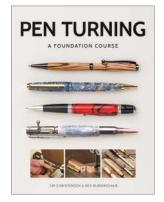
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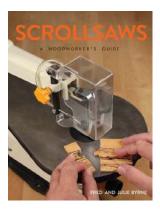
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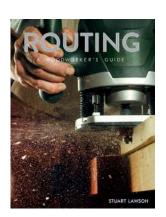
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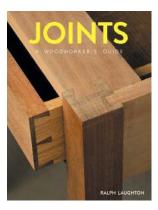
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Shop talk: Joshua Klein

F&C talks to the editor of Mortise & Tenon Magazine

Your background is in conservation. Do you think that's something you'll return to in the future?

Furniture conservation is my first professional love and it's what drove me into pre-industrial woodworking in the first place. I continue to take on personal projects on occasion but trying to juggle the editorial responsibilities of *Mortise & Tenon [M&T]* while keeping a conservation studio running smoothly is more than I can handle if I want to keep my sanity (which I do).

How do you see traditional methods of work linking with modern techniques?

Because I'm not interested in mechanisation for mass production, I've set my focus on discovering the time-tested methods that are just as relevant today as they were in the past. I'm inspired by Ivan Illich's vision of a 'society of simple tools that allows men to achieve purposes with energy fully under their own control', to cultivate a 'post-industrial yet human type of "work".' In my view, hand work is not just a quaint, old-timey thing – 21st-century woodworkers can still make beautiful things with their hands.

Do you still take commissions for furniture yourself?

My woodworking is primarily for my family's needs or for research purposes. That said, I do occasionally take commissions that overlap with research I'd like to do. Often this kind of client is a museum, but not always.

What do we need to do to encourage more people to pick up tools and get making?

Show them it's possible and that there's no more fun way to spend your time. I try to publish material that shows real people making real things with their hands and having the time of their lives doing it.

Describe your most memorable 'eureka' moment in the workshop.

Discovering the beautiful simplicity of wooden bench planes. When I first tried them, I had low expectations but these tools have turned my world upside down. I completely converted to wooden handplanes and never looked back.

When do you expect to be in a position to welcome the first guests to the *M&T* workshop?

We hope to host our first class sometime in 2019. We're still working on restoring all those antique sash windows and building

frames for them, though. There's a lot of work still ahead.

With three young boys I can't imagine you have much spare time but if you do how do you fill it?

My life is pretty full. Besides running *M&T* and building the workshop, my wife and I do have a small homestead/farm here [in Maine]. There are always goats to milk, outbuildings to sheath, and chickens to slaughter. And simply raising and homeschooling our boys is a full-time job in itself. (Even as I answer these questions, my one-year-old is handing me toys and climbing all over me.) The activity around here is a lot for a young family to juggle but we wouldn't do it if it wasn't our delight.

What's your greatest success to date?

Recently completing my first book, a five-year research project about the furniture making of Jonathan Fisher, titled *Hands Employed Aright*. I poured my life into that project and came out the other side deeply changed. I am delighted with the way Lost Art Press has presented this research. They've made it a gorgeous book – one I'm proud to have my name on.



All about Joshua

Joshua lives with his wife and three sons on the coast of Maine, USA. He is the founder and editor-in-chief of *Mortise & Tenon Magazine*, a publication that celebrates historic furniture making.

Where did you train to be a conservator/restorer/woodworker?

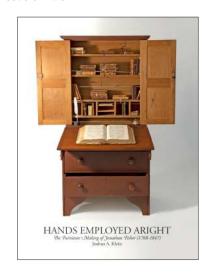
The National Institute of Wood Finishing in Rosemount, Minnesota, USA.

Do you think the furniture we're making today will become the antiques of the future?

Any object that is born of timeless design, is constructed with integrity and is repairable has the potential to outlive our generation. But trends change in the antique market just like every other market – the most prized and sought-after artifacts quickly become passé when the capricious winds of fashion shift. So, I believe that if we want confidence that the furniture we make will survive the scrutiny of future generations, we ought to root them in timeless and proven designs.

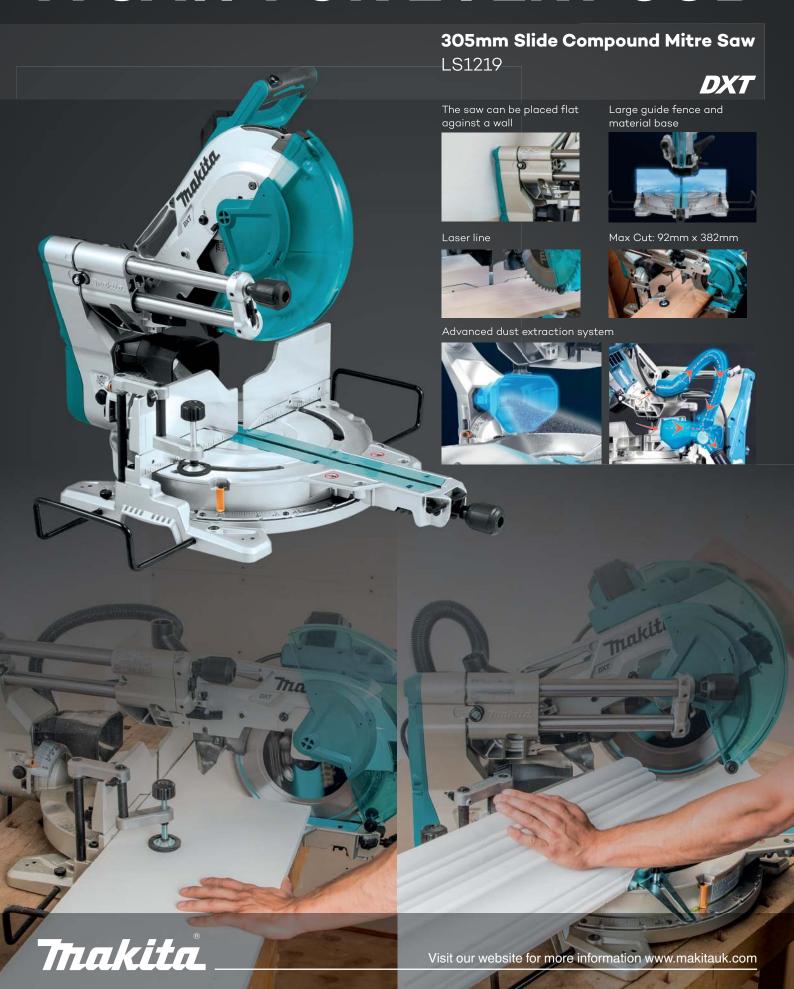
But beyond that, even successful designs include joinery that eventually fails so if there is no realistic path to repair, the object is doomed to be dumped. Conventional synthetic adhesives are non-reversible and cannot, therefore, safely or reliably be disassembled for repair. This is one of the many reasons why I am a dogged believer in the use of hide glue, the standard glue for millennia until the development of synthetics in the 20th century. No furniture lasts hundreds of years because its tenons are inherently better - the reason it's still around is because people in each generation have been carefully repairing it again and again. So, in my mind, when it comes to gluing joinery that lasts, hide glue is a nonnegotiable.

Look out for an extract from Joshua's new book *Hands Employed Aright* in the next issue of *F&C*.



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