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Welcome to...

...the vintage tool market

Tt's not often I'm compelled to respond to readers' enquiries via this introduction to the magazine but it seems that one or two comments I made recently ruffled a few feathers. And given the number, just a handful I might add, it's likely more people were thinking along the same lines; £400 for a vintage Preston router plane, where were you looking (Walke Moore Tools WM2500, F&C 281)? It's a good question and perhaps one that needs a little explanation to quantify the amount before steering you in the general direction of an internet auction site.

It should come as no surprise to regular readers that we're firmly behind the trade in vintage tool sales, reporting as we do on auctions throughout the year. The irony, and I can assure you it's not wasted on me, is that it drives the prices up for tools that are perfectly serviceable and could be in the hands of everyday woodworkers like you and me at a more reasonable price. I've known a lot of genuine collectors, both of furniture and tools that treat their collections as long-term research projects documenting their findings and sharing that knowledge with like-minded souls. These individuals are worth their weight in gold but I've also come across the hoarder collector that hangs on to things for no reason other than they can't bear to part with them. Sound familiar? These folk, in the nicest possible way, should not be encouraged. The sure-fire way to see the cost of vintage tools come down to a price that makes them affordable for users is to put more of them out into the wild. This month's call to arms is about emptying that bottom drawer, clearing that top shelf and setting those excess tools free.

In this issue we're staying on the tools and equipment theme with a series of articles covering tips and tricks on how to fasten sheet materials together quickly, advance your Domino joinery and tune your shoulder plane to perfection.

Derek Jones derekj@thegmcgroup.com

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PROJECTS & TECHNIQUES

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

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Meet the contributors



Charles Mak

With previous careers in hospital management and corporate compliance, Charles semi-retired in 2005, the same year he joined Lee Valley Tools/ Veritas as a part-time Customer Advisor. He became interested in hand tools after realising that his customers were often more knowledgeable than he in traditional woodworking. To fix that, he bought many of the tools he sold, put them to use in his own shop and made mistakes until he could write or teach about them.



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.

Web: www.passionforwood.com



Martin Jones

Martin is an emerging maker in the Australian fine furniture market. Martin's workshop is located in the Southern Highlands, 1.5 hours south of Sydney.

Web: joneswoodstudio.com.au



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.

Web: richard-wile.blogspot.com

Instagram: @rdwile

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EDITOR Derek Jones
Email: derekj@thegmogroup.com
Tel: 01273 402843

DESIGNER Oliver Prentice
SUB-EDITOR Jane Roe
GROUP EDITOR - WOODWORKING Mark Baker
Email: markb@thegmogroup.com
SENIOR EDITORIAL ADMINISTRATOR Karen Scott
Email: karensc@thegmcgroup.com
Tel: 01273 477374

ILLUSTRATOR Simon Rodway

ADVERTISING SALES EXECUTIVE
Russell Higgins, Email: russellh@thegmcgroup.com

ADVERTISEMENT PRODUCTION & ORIGINATION GMC Repro Email: repro@thegmcgroup.com

Tel: 01273 402810
PUBLISHER Jonathan Grogan
PRODUCTION MANAGER Jim Bulley
Email: Jimb@theepinggroup.com
Tel: 01273 402810
PRODUCTION CONTROLLER
repro@thegmcgroup.com
MARKETING Anne Guillot
PRINTED IN THE UK
Stephens and George Print Group
DISTRIBUTION Seymour Distribution Ltd
Tel: 020 7429 4000

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

SUBSCRIPTION RATES (includes p&p)

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The Ikebana Cabinet

Martin Jones explores the Japanese art of Kumiko on his Ikebana Cabinet

eeking a change of career and after attending a one-year intensive fine furniture making course, I decided to put my newly learnt skills to the test and exhibit with Australia's finest studio furniture makers. The opportunity arose with the announcement of The Studio Furniture 2018 Exhibition, which was hosted by Bungendore Wood Works Gallery and arranged by the Australian Wood Review. I applied and was accepted into my first major exhibition.

My aim was to design an elegant, handmade piece that would challenge my skills by incorporating a range of techniques that would showcase the detail and quality of handcrafted furniture, while being cautious not to over indulge and potentially miss the mark in my first major exhibition. To increase my chances of being accepted, I opted for a small Japanese-inspired wall-hung cabinet, considering that it would take up less space as real estate within the exhibition would be scarce.

Having visited Japan on a number of occasions I've come to admire Japanese architecture, their beautiful temples and traditional gardens where a minimalistic aesthetic is utilised perfectly. The gardens are void of artificial ornamentation or overflowing vegetation, but their carefully composed arrangements are sublime. My goal with the piece was to incorporate and respect the Japanese influence while exploring the use of various techniques to push my boundaries.



A Japanese temple garden demonstrating a minimalist aesthetic



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PROJECTS & TECHNIQUES

Japanese-inspired wall cabinet



www.woodworkersinstitute.com F&C282 **13**

Design inspiration

Having already made several Kumikoinspired pieces, I decided to further explore the use of this ancient Japanese art and technique to build the cabinet. From a decorative perspective, I drew upon the minimalistic style of a traditional Japanese garden, specifically the art of Ikebana flower arrangement. Much like the minimalistic temple gardens, Ikebana strives to arrange just a few flowers, often focusing on the stems in an asymmetrical balance that is fragile yet dynamic and in a way that demonstrates a deep respect for nature. With this in mind I commenced designing and making the Ikebana Cabinet.

What is Kumiko?



A Kumiko lamp that I made incorporating the Asanoha pattern, a traditional design based on a hemp leaf

Kumiko is a term for the ancient art of Japanese latticed woodworking traditionally found on sliding doors and screens all over Japan, known as Shoji screens. It is made up of an outer frame called Tsukeko, built with internal latticework referred to as Kumiko. The Kumiko is joined to the Tsukeko using tiny mortise and tenons and the Kumiko intersections are joined with half-lapped joints, which are traditionally cut by hand.

Kumiko latticework can be quite simple or alternatively a highly decorative piece of art. The negative space in the Kumiko lattice is often decorated with intricate patterns made using predetermined angled shooting boards or purpose-specific hand planes. The technique is very precise and even though the Kumiko stock is quite thin, once the pattern is complete the sum of all the components creates an extremely strong screen.

Door construction



ABOVE: Mitred dovetails and door joinery for visual continuity ABOVE RIGHT: Feature posts provide additional joinery opportunities RIGHT: Detail of the decorative lattice in the door corner

With an exhibition piece I feel that you should showcase your skills and push your boundaries therefore all the mitred dovetails used for the cabinet carcass were hand cut and, for visual continuity on the door, I utilised mitred half-lapped bridle joints for the door frame using the half-lapped bridle to avoid any racking related to the weight of the door.

The cabinet door is made of three main parts:

- The Ikebana stems, Kumiko (latticework) and Tsukeko (frame) forming a decorative panel
- 2. A veneered back panel
- 3. The door stiles and rails, which house 1 & 2

The timber used for the Kumiko lattice and door frame is American black walnut and the door's back panel is veneered with figured American red oak and black walnut. After completing a full scale drawing I knew where the stems would be positioned so I started by designing the Kumiko lattice and the Tsukeko framework.

The design had to provide enough joinery opportunities to stabilise the stems but also reflect the minimalistic philosophy of Ikebana. When designing the Kumiko lattice I decided on one top rail, a vertical rail on either side, and two bottom rails. The two bottom rails provide visual weight at the bottom of the cabinet and 'ground' the piece.

To adequately stabilise the Kumiko lattice and avoid bowing, I used additional joinery such as small feature 'posts' to secure the Kumiko to the Tsukeko frame at various





strategic points. As a design feature, I added the decorative lattice on the bottom corners. The door's back panel is MDF veneered in red oak and black walnut, however the red oak veneer sheet came in a width of 270mm, which wasn't wide enough to cover the back panel therefore the middle stem was positioned to conceal the joint and break up any unsightly conflict in the figured grain.

Mortising the frame



Cutting the 4mm x 4mm mortise in the Tsukeko frame using a 3mm bradpoint drill

To mortise the Tsukeko frame, I mark the joint with a knife then use a 3mm bradpoint drill to remove the majority of waste, then I square the mortise with a 1/4th chisel. The slightly larger frame stock securely houses the Kumiko.

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Japanese-inspired wall cabinet

The stems

The stems are made from solid walnut stock, tapered from 7mm to 3mm using a taper sled which I made and ran through the drum sander, alternatively a hand plane could also be used. Once tapered I made four MDF jigs with the desired curves for the stems and placed the stems in a steam box for 30 minutes. Once steamed, I then slowly eased the stock around the jig and clamped the stems in place overnight. It's important to choose straight knot-free grain for this process as any imperfections in the timber will fail once you apply the bend.

Once I had the desired curves I then glued the four stems at the base and cut a mortise and tenon to position the stems in the Tsukeko framework. This provided a reference point to overlay the stems on the Kumiko lattice and mark all the half-lapped joinery where the stems intercept the Kumiko lattice,

and also mark the mortise and tenon where the end of the stem inserts into the Tsukeko frame. This was a very delicate process as all intersections incorporated hand-cut compound joinery in very thin stock.

Once all the joinery was cut, the frame was assembled in the correct sequence to accommodate the compound angles on the curving stems. The stems and Kumiko were assembled first, followed by the Tsukeko sides, and lastly the Tsukeko top and bottom were applied. The Tsukeko frame is assembled using mitred corners, which are glued together and secured with a small nail. Due to the delicate stock used with Kumiko you really only get one chance to assemble the piece and if by misfortune you have to dismantle the joinery it's likely to snap; needless to say the assembly process is a moment of truth.

When gluing the stems, Kumiko lattice and Tsukeko frame, I used a very fine curved dental syringe to place a drop of PVA on each half-lapped joint and on each mortise and tenon, this is an extremely accurate and tidy way of gluing delicate work. Once assembled I gently clamped the piece overnight.

Accurate glue-ups

I use a very fine dental syringe for the majority of my glue-ups. It's an extremely clean and accurate way to apply all sorts of glues and the curved nozzle can access even the most difficult places. It also works perfectly for higher viscosity glues such as epoxy resin.



Taper jig for the drum sander



Steamed tapered stems clamped to curve jig



The tenon located on the base of the glued stems



LEFT, ABOVE & RIGHT: Hand cutting the Kumiko half-lap joints







ABOVE: Hand-cut Kumiko tenon ABOVE RIGHT: Gluing the Kumiko, a drop of PVA using a dental syringe RIGHT: The Kumiko lattice assembled and waiting for the Tsukeko frame to be applied



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Next I glued the decorative Kumiko onto the veneered backboard again using the syringe to apply a delicate bead of PVA glue on the stems and frame, aiming for as little squeeze-out as possible, and clamped the frame to the veneered backboard. To house the decorative panel in the door frame I routed a groove in the stiles and rails of the correct width to capture the Kumiko panel. Epoxy resin was used to glue the panel and door frame joinery in place to complete the door. Using MDF as the backboard substrate eliminated any concern about wood movement within a captured door frame.

Internal compartments

My aim when designing the internal compartment was to provide a 'wow' factor upon opening the door while keeping with traditional Japanese design.

For continuity, the joinery used on the internal sliding door frames is the same as the cabinet door: mitred half-lapped bridle joints which house a red oak veneered MDF panel. I applied tongues on the top and bottom of the doors, which locate and run in grooves applied to and routed out of the carcass; this enables the sliding doors to be inserted and removed at any time. The two drawers are made with hand-cut half-blind dovetails and traditional runners on the underside of the drawer. In order to house a small drawer pull that wouldn't foul on the back of the door, I inset the drawer face by 4mm by applying a bead.



The assembled door panel



The internal layout keeping with a Japanese design



Hand-cut half-blind dovetails and inset drawer face



The inset drawer made space for the small drawer pulls

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Japanese-inspired wall cabinet

Japanese saws

All the Kumiko joinery is hand cut and must be extremely precise to provide strength and avoid unsightly gaps. It is well worth investing in a quality Japanese saw with a very thin blade. The saw I use has a plate thickness of 0.2mm and zero set, therefore the kerf is near enough 0.2mm.



A Japanese saw with a very fine kerf







Conclusion

In conclusion, exhibiting was an extremely rewarding process and a great way to push boundaries and learn new techniques.

Assigning a realistic amount of time to make the piece allowed me to plan thoroughly, test new techniques and build a flawless cabinet for the judges to assess, as you should when provided the opportunity to exhibit alongside the best furniture makers in the country! FAEC

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

Makita opens new London service centre



The latest Makita service centre is now open in Hounslow

akita UK has opened a third regional Factory Service Centre (FSC) in the London borough of Hounslow.

This new FSC joins Makita's HQ facility in Milton Keynes, which serves the whole of the country, as well as Glasgow, which supports Scotland and northern England. The London FSC will primarily service the London and southeast region.

While these facilities satisfy a vital role in providing technical repairs and maintenance services, they also offer comprehensive power tool training. Courses are available to meet individual needs and bespoke power tool training can be designed to meet specific requirements.

Contact: Makita Web: www.makitauk.com

Sylva Foundation opens Wood School

The Sylva Foundation, an environmental charity based in Oxfordshire, has opened its Teaching Barn at the Sylva Wood School. Sylva is currently offering a programme of weekend courses using some external tutors as they build up to the launch of a range of courses launching in the summer. The courses offered so far have included guitar maintenance and repair, canoe paddle making, pole lathe turning and timber-framing.

Contact: Sylva Foundation Web: sylva.org.uk

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The CLEFT cabinets by Peter Marigold and Tadanori Tozawa won the Bespoke award at the 2018 Wood Awards

The 2019 edition of the Wood Awards is now open for entries. The call for entries opened on 12 March and will close on 24 May.

With permission from the owner, anyone associated with a building or product design can enter. The project must have been completed in the UK in the last two years. Entry is free and you may submit more than one project. Furniture categories include Bespoke, Production and Student Designer.

The shortlist will be revealed in July and the winners will be announced at a ceremony on 19 November.

Contact: The Wood Awards Web: woodawards.com

Early bird tickets on sale for international contemporary arts festival at Waterperry Gardens

Handmade Oxford – The International Contemporary Arts Festival will be held 27–30 June, at Waterperry Gardens, previously the home of internationally-renowned Art in Action for 40 years. Early bird tickets are available now on Handmade in Britain's website.

Working in collaboration with principle event partners Waterperry Gardens and the Ashmolean Museum, Handmade in Britain offers visitors the opportunity to meet, browse and shop directly from over 250 exhibitors working across craft, fine art, sculpture, artisan food and more, while enjoying the beautiful gardens and packed programme of workshops, demonstrations and talks.

Innovative new designers will showcase their work alongside established exhibitors. Visitors are invited to discover emerging talents as part of various groups, organisations and guilds from across the country, including Arts Thread and Making Goode. The festival will also present the 15 finalists selected as a result of Handmade in Britain's international arts competition hosted in conjunction with Ashmolean Museum and Zealous,



Burr walnut Burnett Table by Edward Wild, who will be among the exhibitors at Handmade Oxford

the online submissions platform which unites the creative industry.

Contact: Handmade in Britain
Web: handmadeinbritain.co.uk/oxford

Furniture Awards winners

The winners of this year's Furniture Awards were announced at the January Furniture Show.

Organised by Furniture News magazine in partnership with the January Furniture Show – and supported this year by the BFM and Orbital Vision – The Furniture Awards recognise the industry's champion suppliers, based on the strength of the new products launched at the event.

The winners in each category were:

Mattresses & Divans: Sealy UK's
Activsleep range
Bedroom Cabinets: Wiemann's Monaco
Accents: Hartman UK's Julia
Resin Chair
Upholstery: Parker Knoll's
Collection 150
Living & Dining Cabinets:
ALF's Fusello Table

Contact: The January Furniture Show Web: januaryfurnitureshow.com

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Celebrating British Craft

This exhibition will showcase quality and expertise across a range of traditional and contemporary crafts, including winning entries from GMC's British Woodturner of the Year competition (see page 41 for details). Leading figures in British woodcraft industries will present interactive activities for all ages. Check the website (www.guildmc.com) for our workshop and speaker programme.

When: 8–19 May Where: Oxo Tower Wharf, Bargehouse Street, South Bank, London SE1 9PH

Web: www.oxotower.co.uk





High-end furniture from around the world will be on show at Salone del Mobile Milano

Salone del Mobile Milano

Now in its 58th edition, Salone del Mobile Milano provides a global platform for top-notch products with the emphasis on innovation. The Salone is split into three style categories: Classic: Tradition in the Future, which draws on the values of tradition, craftsmanship and skill in the art of making furniture and objects in the classic style; Design, products that speak of functionality, innovation and boast a great sense of style; and xLux, the section devoted to timeless luxury re-read in a contemporary key.

When: 9-14 April Where: Milan Fairgrounds, Rho, Milan, Italy Web: www.salonemilano.it/en/

Record Power Road Show and Handmade Craft Market

There will be plenty of demonstrations and exclusive show deals at the Record Power Road Show at Yandles. Experts will be on hand to offer free advice on all Record Power and Startrite tools, plus there will be a timber sale. On Sunday 13 April, Yandles will also be hosting a Handmade Craft Market featuring quality handmade pieces from gift and home ware, clothing, toys, sculptures, stained and fused glass, jewellery and much more.

When: 12-13 April

Where: Yandle & Son Ltd, Hurst Works, Hurst, Martock, Somerset TA12 6JU

Web: www.yandles.co.uk



Roger Champion's furniture will be on display at the Weald & Downland Living Museum

Just Champion

Master carpenter Roger Champion has been involved in the work of the Weald & Downland Living Museum for many years, mainly on the dismantling and construction of the historic buildings in the early years before turning to creating the 247 pieces of furniture that you can see in buildings around the museum. This special exhibition brings together a selection of this craftmanship into one space, providing his background information on the pieces, as well as images of the work in progress.

When: Until 26 April Where: Weald and Downland Living Museum, Town Lane, Chichester PO18 0EU

Web: www.wealddown.co.uk

The Good Life: Revive, Recycle, Restore

Rural communities were the masters of upcycling before it ever became fashionable; making and mending, reusing and repairing and looking to nature for homegrown remedies were all central parts of countryside living. At this show, you'll

learn how to bring a new lease of life to you and your possessions. Hear from experts, uncover the path to sustainable living and be inspired to start your own projects.

When: 5-6 May

Where: Weald and Downland Living Museum, Town Lane, Chichester PO18 0EU Web: www.wealddown.co.uk

London Craft Week

London Craft Week returns for its fifth edition, celebrating outstanding British and international creativity and bringing together over 200 established and emerging makers, designers, brands and galleries from around the world. The programme of events includes exhibitions, demonstrations and workshops.

When: 8-12 May

Where: Venues across London Web: www.londoncraftweek.com

Makers Central

Makers Central brings together thousands of makers from around the world including crafters, inventors, artists and hobbyists to share and celebrate all things creative. The first event was held last year and was a huge success with over 6500 people attending. As before, there will be plenty of demonstrations and workshops at this year's show, where you can learn about skills such as pen turning, spoon and bowl carving, and metalwork. There will also be arts and crafts workshops for children.

When: 11–12 May

Where: NEC, North Avenue, Marston Green, Birmingham B40 1NT Web: www.makerscentral.co.uk

Midcentury East

At this latest edition of the Modern Shows, you can see 55 dealers selling everything from rare collectable pieces to more functional 20th-century furniture as well as striking posters, quirky lighting, Berber rugs, ceramics and glass from world famous 20th-century icons all dotted around the ground floor of midcentury architect Ernö Goldfinger's only brutalist school.

When: 19 May Where: Haggerston School, Weymouth Terrace, London E2 8LS Web: modernshows.com

London International Woodworking Festival

London IWF is a brand new woodworking event in central London hosted by London Design & Engineering UTC. Join us for live demonstrations and seminars by top professionals from around the world and explore the tool bazaar.

When: 26-27 October

Where: LDE UTC, London E16 2RD

Instagram: @london_iwf

Institute for Apprenticeships approves five Level 3 furniture standards



he Furniture and Interiors Education, Skills and Training Alliance (FIESTA) is delighted to announce that the Institute for Apprenticeships (IFA) has approved five new Level 3 apprenticeship standards for the furnishing industry.

The standards, which were approved in December 2018, are Bespoke Furniture Maker, Advanced Furniture CNC Technician, Advanced Upholsterer, Fitted Furniture Design Technician and New Furniture Product Developer.

The development of the standards was co-funded by the British Furniture Manufacturers Association and The Furniture Makers' Company and follow the launch of the Level 2 apprenticeship standards in 2016. Both sets of standards have been written with industry under the government's Trailblazer initiative.

FIESTA hopes that the new apprenticeship standards will be available for use by May 2019 once End Point Assessment plans have been developed.

Gary Baker, FIESTA chairman, said: 'We are very pleased that the IFA has

approved these new standards, which were identified by the furnishing industry Trailblazer group as the apprenticeships in highest demand. After the successful introduction of the Level 2 standards, we're excited by the prospect of training a host of new apprentices at the Level 3 standard.

FIESTA is now calling for industry to take part in a survey to ascertain demand for higher apprenticeships.

Higher and degree apprenticeships are available at Levels 4 to 7. They combine work with study and may include a work-based, academic or combined qualification relevant to the industry. Levels 4 and 5 are equivalent to a higher education certificate/diploma or a foundation degree. Level 6 is equivalent to a bachelor's degree and Level 7 is equivalent to a master's degree. Typically, higher apprentices study part-time at college, university or with a training provider.

The survey, which will close on 29 March, has been produced on behalf of FIESTA members, trade associations

from across the UK furnishing industry.

Gary added: 'It's important for industry to realise that we can only develop standards when we have established demand from employers. If there is a higher apprenticeship standard required, it is essential that industry lets us know by completing the survey.'

The survey is available by going to http://bit.ly/FurnitureApprenticeSurvey

FIESTA was formed in 2017 to address the skills gap issue within the furnishing industry. It marks the first time that trade associations from across the wider furnishing trade have come together to collectively address training and education needs. FIESTA members include: The Association of Master Upholsterers and Soft Furnishers (AMUSF), the British Contract Furnishing Association (BCFA), the Association of British Furniture Manufacturers (BFM), The Furniture Makers' Company (FMC), the Kitchen, Bathroom, Bedroom Specialists Association (KBSA), The Kitchen Education Trust (TKET) and the National Bed Federation (NBF).

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Designer-makers in the making

Robinson House Studio introduces us to the work of some of their students



Robinson House Studio designer-maker students. From left to right: Richard Kitchen, Tom Darby, Alex Clough-Whelan and James Dabell

t the heart of Robinson House Studio is a desire to question the norm and experiment with the unconventional. The results are plain to see; a steady stream of craftspeople poised to capture the imagination. The students whose work is shown here all took part in the Studio's 50-week Furniture Design & Maker's Course, which covers everything an aspiring professional furniture maker needs to know.

For more information about furniture-making courses at Robinson House Studio, visit: marcfish.co.uk

Robinson House Studio students

Richard Kitchen

Richard joined us in January 2018, after working in project management for a number of years. Having previously studied art and design, he had recently completed a couple of short courses in furniture making and decided he wanted to dive in to our 50-week course and really develop his skills. His Turntable Console is made in American black walnut, with a solid surface floating top. The floating surface is achieved with north-facing magnet damping pistons. This removes any unwanted vibration and interference, improving sound performance. It also features custom-made aluminium air vents and hardware. This version is the first prototype, and Richard plans to develop the design for future production. We're really pleased with the progress he has made throughout the course, and we're excited to see where he goes from here.







Richard Kitchen's Turntable Console in black American walnut

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James Dabell



James Dabell's Side Board in ash, bronze and leather

James worked as a lawyer before starting his course with us in January 2018, after deciding he wanted to pursue something more practical, hands-on and creative. He has developed a great range of skills during his year with us and now plans to gain commercial experience. His Side Board, made with ash, bronze and leather, features door panels that are covered in 112 bookmatched and scorched ash end-grain slices. It also has hand-shaped, patinated bronze handles, shelf lippings made of miniature book-matched end-grain slices that have been wire brushed and burnished, and leather-covered interior shelves.



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Alex Clough-Whelan



Alex joined us for a one-year course back in January 2017, hoping to start a career in furniture making. He made some fantastic pieces while studying with us, and, on graduating, was employed by school founder Marc Fish to continue on at Robinson House Studio as a furniture maker. Alex's Writing Slope is made from Indian inked walnut, and uses brass and mild steel for the tracks since they are

self-lubricating. The interior of the box has sections to keep writing equipment, and the box itself is sloped at the ideal angle on which to write. His Desk has a plywood substrate and rosewood veneer top, with solid rosewood legs and stainless steel feet. It features hidden drawer mechanisms with discreetly placed handles, which gives the illusion that the drawers are floating.



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Tom Darby

Tom joined us in September 2017 and spent a year studying with us. His Occasional Table has laminated sycamore legs with a top created from walnut and hammered brass. The legs have been Indian inked for a rich black tone. His Whiskey Cabinet has a brown oak body with rippled maple doors. It also has a red gold leafed interior and copper feet, left to naturally patinate over time. Tom rejoined us at the end of 2018 to work as a maker for school founder Marc Fish.





Whiskey Cabinet in brown oak, rippled maple, gold leaf and copper, made by Tom Darby



DESIGN & INSPIRATION

Robinson House Studio students



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Turn your shoulder plane into a star performer



Woodworking with Hand Tools: Tools, **Techniques & Projects**

By the Editors of Fine Woodworking Published by Taunton, £21.99.

Available from www.thegmcgroup.com

n my shop, the shoulder plane is the go-to tool for trimming tenon cheeks. The lowangle, bevel-up blade works great across the grain. And because the blade is as wide as the plane body, it can cut all the way into the corner where the cheek meets the shoulder. This ability is also essential when I use my plane on rabbets.

However, despite its name, I typically don't use a shoulder plane on tenon shoulders. That's because most tenon shoulders are shorter than the plane is long-not to mention narrow. It's hard to balance the plane on the shoulder and get a good cut. Instead, I use a chisel.

For best results on tenon cheeks, a shoulder plane needs a flat sole and sides that are square to it. Also, the width of the blade should match the width of the body. You might think they come that way from the manufacturer, but it's actually common for the blade to be a bit wider. So, I'll show you how to adjust the blade's width and give you some tips for setting it up for square cuts.

If you don't already own a shoulder plane, get one that's at least 1in wide. Most tenons are between 1in and 11/2in long, and a narrower plane is more likely to taper the tenon.

Check the plane body, then tweak the blade





Three step tune-up. Intended to cut into square corners, a shoulder plane needs a flat sole, square sides, and a blade as wide as the plane. To start, check that the body is straight and square. Hold the plane up toward a light source. Light sneaking between the plane and a rule means it's not flat. Replace the rule with a combination square to determine if the sides are 90° to the sole.

A shoulder plane won't cut a square corner unless it has a dead-flat sole and sides that are exactly 90° to it. So, the first time you pick up the plane, check the sole with a straightedge and use a combination square to check that the sides are square to the sole. If the sole isn't flat or the sides aren't square to it, return the plane. Correcting those problems is not worth the hassle.

After checking the body of the plane, turn your focus to the blade. Take it out of the plane, then lay the plane on its side on a flat surface. Hold the flat side of the blade against the plane's sole and look to

make sure the blade is wider than the body. If it's not, send the plane back. If the blade is too narrow, one side won't cut into the corner, creating a wider step and pushing the plane farther away from the shoulder with each pass.

However, a blade that's too wide is also a problem, because it can dig into the shoulder. Ideally, the blade should be the same width as the body, but if it's 0.001in to 0.002in wider, that's OK.

Mark one edge of the flat side of the blade with a permanent marker. Then, with the plane on its side and the blade pressed against the sole, scribe the body's width on the blade.

Grind it down with a bench grinder (or on your sharpening stones). It's critical that the two sides of the blade are parallel to one another, so use calipers to check them as you grind. Next, check whether the cutting edge is square to the factory edge. If not, grind it square. Finally, sharpen the blade. I recommend a hollow grind for the bevel. Because of the blade's shape, it doesn't fit well in honing guides. The two high points created by the hollow grind make it easier to hone the blade freehand.



Tweak the blade's width. Ink along one edge. It's much easier to see the scribe line you'll create against a dark background than against the steel of the blade



Mark the sole's width. Lowe uses the scribe from his combination square, holding its tip slightly above the plane body as a precaution against grinding the blade too narrow



Grind to the line. Set the tool rest at 90° to the wheel.

Grind away most of the excess, then smooth the rough
edge on your sharpening stones



Square the cutting edge. Look into the light and register the square on the factory edge of the blade (the one you didn't grind). If the cutting edge is out of square, regrind it



Set up for a square cut. A shoulder plane's primary use is to trim joinery, so it's critical that it takes a shaving the full width of the blade and of a consistent depth. To set the blade in the body, pinch the blade between your fingers to center it, and tighten the hold-down to keep it in place (left). Then adjust the mouth, if that's possible on your plane (above)

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Set up for a square shaving Now that the blade is sharp, put it back in the plane. When sliding

Now that the blade is sharp, put it back in the plane. When sliding it into the throat, take care not to nick the edge and be certain that the adjuster mates solidly with the blade. Visually check that it's centered in the throat.

Next, square the cutting edge in the mouth. First, get it roughly set by turning the plane sole up with the blade projecting beyond the sole. Sight down the sole of the plane from the front. Make lateral adjustments to the blade until it projects equally across its entire width.

Now retract the blade so that it doesn't cut. Then begin pushing

the plane across a piece of scrap and increase the depth of cut as you go. When you start to get a shaving, notice where the blade is cutting. If it's making a square cut, the shaving will be the full width of the blade. If not, adjust the tang of the blade in the direction of the corner that isn't cutting. Pinch your fingers around the plane and blade near the cutting edge to keep that end still. Loosen the hold-down and nudge the tang over. Tighten the hold-down. Test and adjust the blade until it's right. Finally, set the mouth—if that's possible on your plane—narrow for figured and hard woods and wider for soft woods. F&C



Narrow shavings are bad. A blade that's cutting square takes a shaving across its width. This blade is cutting too deep on the right



Here's how to fix the problem. Loosen the hold-down just enough to allow you to shift the blade's tang. Move it toward the side of the blade that wasn't cutting (left). When the blade is cutting square, it cuts a full-width shaving that has a uniform thickness (right)





Keep the plane vertical in use. A simple bench hook holds workpieces on their side so you can hold the plane upright, where it is easier to control. For straight tenon cheeks, first place the toe of the plane on the tenon and slide it forward until the blade just touches. Then take a shaving, keeping even pressure on the plane throughout the cut



Start at the shoulder. And don't overlap cuts. Otherwise, you'll get cheeks that aren't parallel





For rabbets, rotate the board (not the plane). For the wall parallel to the board's face (left), clamp the board between benchdogs and use your off hand to keep the plane tight against the rabbet's vertical wall. Use a vise for the other wall (right). With the board on edge, there's no need to lay the plane on its side.

Don't miss our guide to the best shoulder planes on the market on page 66



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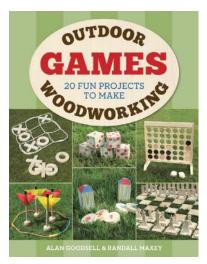
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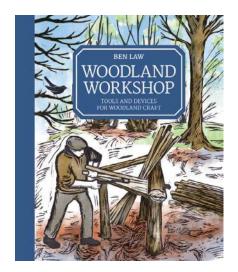
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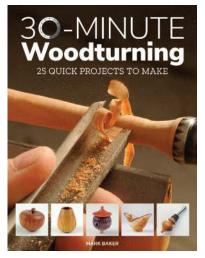
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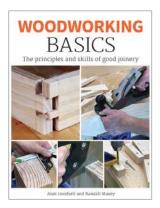
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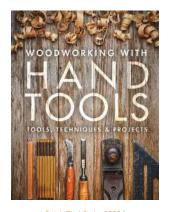
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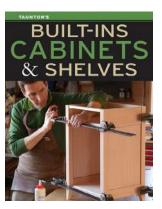
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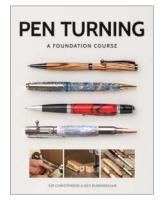
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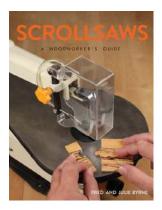
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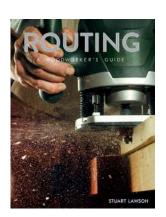
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UNDER THE HAMMER:

Home & Interiors

We look at some of the best lots from the recent Bonhams sale

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auction held at Bonhams
London saleroom featured
an eclectic range of items,
including paintings, silverware,
furniture, carpets, works of art
and clocks. Here, we take a
closer look at some of the best
examples of furniture.



£11.875

A French late 19th/early 20th-century gilt bronze-mounted mahogany vitrine by Francois Linke. The moulded marble top sits above a frieze mounted with two satyr putti and one central Bacchic putto, amidst abundant vine leaves, bunches of grapes and ribbon-tied floral swags. A glazed panelled door is mounted below, decorated with an ormolu oval relief plaque depicting four frolicking putti and adorned with scrolling foliage, flowers, vine leaves and wheat sheaves. Inside are three glass shelves and a mirrored back. The keeled legs terminate in acanthus and scroll cast sabots. The lockplate is signed: 'F. LINKE'.

Francois Linke (1855–1946)

Linke was born in Bohemia (now the Czech Republic), but moved to Paris where he became one of the leading ébénistes of the late 19th and early 20th century. He first established his business in Paris ca 1880 at 170, Rue du Faubourg Saint-Antoine, and from 1900 onwards he opened a showroom at 26, Place Vendôme. Linke made a huge impact at the 1900 Exposition Universelle in Paris, at which he presented vigorous reinterpretations of the Rococo style. He was ultimately honoured with a Gold medal and his success acquired wealthy patrons from across the world. He was admired so much in France that he was even awarded the Croix de la Légion d'Honneur in 1906.

DESIGN & INSPIRATION

Under the hammer



£1187

A Napoleon III brass-mounted rosewood, tulipwood, ebonised and fruitwood marquetry breakfront meuble d'appui (low cabinet). Inlaid with acanthus, husks and strapwork, the marble inset top sits above a central door inlaid with an Arabesque centred by a pair of dancing figures and pair of musician monkeys. This encloses a bird's-eye maple interior with two shelves, on tapering feet.

£2750

Two from a set of four French late
19th-century carved giltwood chaises
in the Louis XVI style. Each oval
padded back is encompassed by an
entrelac border within a lotus-leaf
surround, below ribbon-tied floral
swags. There are stiff-leaf clasped
reeded tapering front legs and
splayed rear legs.



www.woodworkersinstitute.com F&C282 **37**



£1625

A French 19th-century gilt bronze-mounted ivory, mother of pearl and brass 'Boulle' marquetry ebonised meuble d'appui. It is inlaid with an Arabesque, scrolled foliage, flowers, putti and butterflies. There are two shelves inside the cabinet. It sits on toupie-style feet.



£3500

A French late 19th/early 20th-century gilt bronze-mounted Vernis Martin and rosewood breakfront vitrine. The marble inset top is a later addition. The entwined floral and foliate wreath-mounted frieze is centred by a Ceres mask flanked by opposing rams. The panels below are decorated with figures in pastoral scenes.



DESIGN & INSPIRATION

Under the hammer



£1875

A George I japanned bureau, decorated with pagodas, figures, exotic birds, flowers and foliage. The fall encloses eight pigeon holes, four concave drawers, two engaged column bookends and an inkwell with a sliding top. A pair of central doors encloses four drawers, above lopers, over two short and two long graduated oak-lined drawers.



£687

A mid-19th-century brass-mounted and marquetry inlaid writing/stationery box in the Louis XV style. The box has foliate, ovolo and beaded borders, the top and sides feature foliate inlaid panelled decoration. The top has a lift-up lid and sits above a pair of concave doors and a hinged writing slope with velvet lined interior.



www.woodworkersinstitute.com F&C282 **39**

£3500

An early Victorian gilt bronzemounted tortoiseshell and brass 'Boulle' marquetry ebony and ebonised bureau plat. It is inlaid with scrolled foliate strapwork, dancing figures and rosettes. The gilt-tooled leather inset top sits above three short frieze drawers.



Glossary of catalogue terms

Arabesque – French term derived from the Italian word Arabesco, meaning Arabic style. A plant-based scroll ornamentation typically featuring stylised interpretations of interlaced acanthus and other leafy foliage.

Bacchic – In a decorative context, the term is a link to Dionysus, the Greek god of the grape harvest, winemaking and wine. Renamed Bacchus by the Romans, it suggests the jovial and sometimes riotous intoxicated behaviour associated with the Roman festivals of Bacchanalia.

Bois satiné – Satin wood. With several species sharing the name it could be Chloroxylon swietenia from East India, Chloroxylon faho from Madagascar, Murraya paniculata from southeast Asia or Zanthoxylum flavum from the West Indies.

Bonheur du jour – A bonheur du jour is a type of lady's writing desk introduced in Paris by the most fashionable purveyors of novelties called marchands-merciers, in about 1760. They typically feature a raised back and were designed to be moved about the room and not placed against a wall.

Boulle – After André Charles Boulle the French cabinetmaker and marqueterian said to have been the most gifted craftsman in Paris during the reign of Louis IV (1638–1715). His style is primarily associated with the inlay of metals such as brass and pewter into wood and tortoiseshell.

Bureau plat – A writing table. Typically with a series of drawers directly under the surface of the table, sometimes disguised within a frieze, to contain writing implements, so that it may serve as a desk.

Ceres – Ceres was the Roman goddess of agriculture, grain crops, fertility and motherly relationships and is associated with bountiful harvests. It's the root of the word cereal.

Entrelac – A type of decorative design used to create a textured diamond pattern suggesting overlapping or woven elements.

Ormolu – Ormolu is another term for gilt bronze where an amalgam of high carat gold and mercury are used to decorate the surface of cast bronze mounts. The process is highly toxic as the murcury is burned off in a kiln. Also known as fire gilding. Putti – Putti is the plural of putto: a figure in a work of art depicted as a chubby male child, usually naked and sometimes winged. They are used to represent the sacred cherub and the omnipresence of God.

Sabots – Sabots were a kind of simple shoe, shaped and hollowed out from a single block of wood, traditionally worn by French and Breton peasants. In furniture the term is used to describe a decorative foot at the base of a leg.

Toupie – The term toupie refers to the Middle French word for a spinning top and is used to describe the shape of a finial or foot.

Vernis martin – Vernis martin is a type of lacquer made popular by the French Martin brothers Guillaume, Etienne-Simon, Robert and Julien in the late 18th century that imitates Chinese lacquer. The brothers were vernisseurs du roi ('varnishers to the king') but did not invent the process.

Vitrine – French word for a glass showcase or display cabinet, typically used for exhibiting fine wares or specimens such as porcelain and china.



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Using the Domino joiner for angled joinery challenges

Charles Mak shares a few advanced Domino joiner techniques that he uses to handle tricky angled joinery demands

n a previous article, 'Taming the Domino joiner' (F&C 233), I covered ways that help prevent the common Domino blunders, as well as techniques that realise some of the potentials of the Domino machine. In this follow-up article, I will guide you in tackling some more complex joinery tasks with the Domino joiner.

The Domino joiner is a straightforward tool when you can use the same fence and depth settings to cut mortises on mating pieces. For example, in edge-jointing and butt joinery, the fence is set at 90° for all the cuts, or for mitres, the fence is angled at 45° with the same depth setting from start to finish. In both cases, the fence height also stays unchanged for all the cuts throughout the process.

Things become a bit trickier, however, when you need to change the machine settings or positioning to mill between



In carcase shelving, the baseplate is rested on the vertical piece when mortising the horizontal member (shelf)

mortises. For example, in a carcase with fixed shelves, the depth settings and machine orientation are different when mortising the sides and shelves. The complexity increases even more when the mating pieces involve different registration angles



When mortising the vertical piece (side), the shelf is used as a reference edge with the baseplate held against the edge of the shelf

or workpieces too small for positioning.

Using three different projects – a nook table, a step stool and a leaning display shelf – each with varying joinery challenges, I will illustrate how you can use your Domino joiner to handle angled joinery.

Attaching horizontal, rectangular members to a vertical, polygonal column

Last summer, I built a pedestal table with tapered arms and feet attached to a vertical post. Because the post is hexagonal, unlike joining table legs to aprons that both are rectangular, the machine could not use the same fence angle at 90° on the non-rectangular post. Let me show you how I handled the challenge.

For illustration purposes, the joint featured here is held together with double mortises, although twin double mortises were used in the actual table. First, start with the horizontal pieces (the arms and legs), and mark out the double mortise placements with pencil lines. Set the fence height to cut mortises in the centre of the board's thickness, and, positioning the machine as guided by

the pencil lines on the horizontal piece, cut out the mortises.

Next, line up the vertical post with one of the horizontal piece:

Next, line up the vertical post with one of the horizontal pieces in position, and transfer the two placement lines from the horizontal piece to the registration face of the post. Lastly, find the post's centre and pencil a centre line on the joinery face of the post.

Since the adjacent angles on the six-sided post are 60°, tilt the machine's fence to 60°. Then, rest the fence on the post's registration face, and adjust the fence height until the milled flats line up with the centre line. Finally, use the sight gauge on the fence to position the machine over the placement line, and mill the mortise. After dry-fitting, you can taper the horizontal pieces to the desired shape.



The tapered arms and feet for this table are joined to the hexagonal column using Dominos



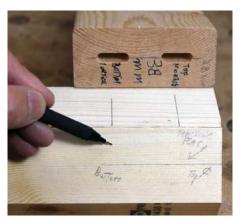
Twin double tenons give added strength to the joint.
The rows of mortises were cut by referencing against
the same registration face, but with different fence
height settings



The mortise placement lines marked on the arm/ foot will later be used to lay out the corresponding placement lines on the vertical post



The double mortises can be cut in the centre, or off centre (as in the case of twin mortises), by adjusting the fence height



The mortise placement lines marked on the horizontal and vertical members are collinear so the mortises will match when the joint is assembled



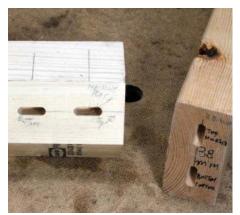
The fence is locked at 60°, the Domino angle for a hexagon



Line up the baseplate's milled flats to the centre line on the post, and lock up the fence height



To position the machine, align the sight gauge centre line with one of the placement lines marked on the post's registration face



Only one line (centre) is drawn on the column here. If twin double mortises are cut, two matching vertical lines will be marked on both the horizontal and vertical pieces for setting the fence heights

Mounting horizontal members between two vertical pieces at an angle

Two other projects, the step stool and leaning ladder-style shelf, involved attaching horizontal pieces to two vertical pieces that are slanted. Because of different needs though, they required different approaches to the handling of their joinery.

Step stool

The first project is a step stool, serving as a great helper in the house for reaching those high-up spots. The stool consists of front rails and legs in which the front rails, set perpendicular to the floor, are joined to slanted legs. Since the legs are slanted and not perpendicular to the floor, a different machine setting is needed for the legs.

The first cuts are done on the rails with the fence at 90° and the depth setting at half of the stock thickness, producing centred mortises on the end grain.

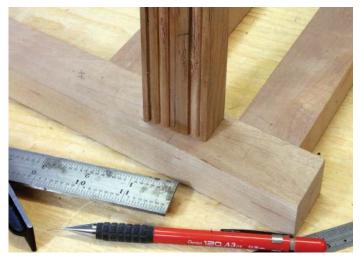
To lay out the angled mortises on a leg, place the rail on the leg in position, and mark out the intersecting lines that correspond to the placement lines found on the rail. To overcome the small registration surface of the narrow stock, and to be able to see the intersecting lines to line up the baseplate, sandwich the legs between two wider boards and extend the short intersecting line. In the last step, use the intersecting lines to position the joiner, and mill the angled mortise on the leg.



The different angular orientations of the parts to be joined and the narrow width of the stock present a registration challenge for the Domino joiner



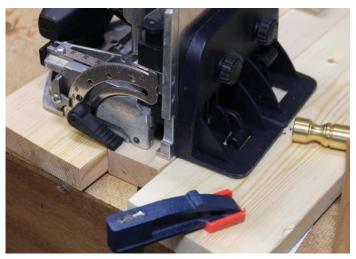
The author uses a trim stop with the joiner for precision and consistency whenever he cuts centred mortises on narrow stock



Use the centred placement lines on the rails to lay out the corresponding mortise placement lines on the legs



Cradle the leg between spacers and extend the shorter placement line to the enlarged registration surface



Align the centre line on the base support bracket with the extended placement line on the spacer. Note that the milled flat is lined up with the other placement line on the leg

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Leaning display shelf

The above method of using intersecting lines to position the Domino joiner would be quite time-consuming if you have a lot of identical angled mortises to cut. Such was the case in the second project: a leaning display shelf where five rows of double mortises were cut at an angle on a pair of rails.

My solution is to use an angled jig to position the Domino joiner on the rail for repeatability and consistency, giving perfectly matched mortises on the opposite rails (see the diagram on page 46). In use, the angled jig is clamped with its fence against the front edge of the rail, while the mortising centre lines on the jig are used with the scribed centre line on the baseplate to position the machine.

Before the jig can be used, locate with pencil lines on the rails where the shelves are to be put. If you size your jig to the desired spacing between shelves, you can lay out those lines with the jig. The mortising steps below are then followed once you set the Domino joiner for the proper settings for the fence, depth and width:

- 1 Clamp the jig in place on the rail with the jig's reference edge over the pencil line.
- 2 Align the baseplate's scribed centre line with one of the mortising centre lines on the jig.
- **3** Cut the first mortise, and reposition the machine to cut the second mortise.

After all the angled mortises are cut on both rails, mark out the mortise placement lines on the shelves and mill the mortises on the end-grain.

The Domino joiner, billed by some as a revolutionary, versatile joinery machine, has been used by woodworkers to build angled projects such as stair rails, Zigzag-style chairs and even kayaks. The several projects I cover here are good examples of how you can make use of the fence setting, intersecting lines or jigs to handle angles and joints. Complex-looking angled joinery? No worries!



The number of angled mortises in this display shelf (20 in total) calls for a jig approach to get a consistent mortising result on both rails



To mark out the shelf location, slide the jig's fence along the rail and hold the jig at the desired location to draw a pencil line



With the jig's edge on the pencil line, secure the jig to the rail with a holdfast or hold-down



Position the machine with its baseplate's scribed line aligned with the pencil line on the jig

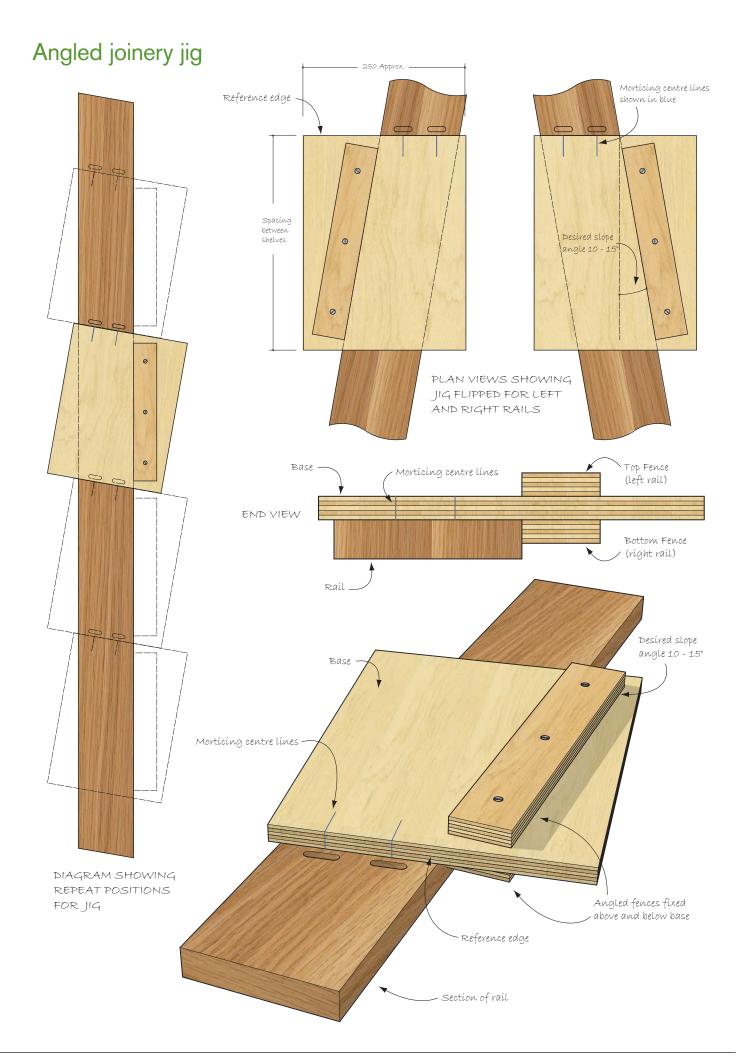


Hold the machine tight to the jig, and slowly plunge the joiner to make the cut



I cut all the front mortises with a standard width setting for precise alignment and the rear ones with a wider setting

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t the 2018 International Woodworking Fair in Atlanta, USA, I was able to see some of the new and exciting products Veritas Tools and Lee Valley Tools were introducing to the market at that time. One of these items was a pocket plane. I recently got my hands on one and gave it a test drive in my workshop. What a beautifully made little tool.

The reveal

I think many of you have experienced the excitement of receiving fine tools in the mail, not to mention high-quality Veritas tools. So when I received a tiny box marked 'Veritas Pocket Plane - PM-V11', I opened it at once.

Inside I found a tiny hand plane wrapped neatly in paper. The sole is just 3% in long and less than 1½ in wide. It is black on the lever cap and the interior of the plane, but shows off polished metal on the sides and sole. Then the lever cap wheel and the adjustment mechanism are made of knurled brass. It looks almost too good to use! But of course, tools are meant to be used, not just admired. So it also required a solid test run.

Under the bonnet

Before testing, I, of course, wanted to take a closer look at the components and the quality of the machining. So I turned the lever cap wheel to release the cap. It felt like butter. Then I saw the blade and adjustment mechanism, both tiny but beautifully made.

It couldn't be simpler. There is a body, sporting a 15° bed. As this is a bevel-up plane, that means the 15° bed combined with the factory ground 20° bevel angle provides a 35° effective cutting angle. That means that while this hand plane can easily handle long grain (edges and faces) if the grain direction is in your favour, it would be unwise to use it in that fashion. Even the slightest change in grain direction will cause tear-out as the low effective cutting angle causes the blade to lift the wood fibres in an upward fashion. However, this hand plane excels at end grain cutting. That could mean trimming the end of a through tenon, trimming the ends of tails and pins on a dovetail joint, trimming the ends of finger joints (aka box joints) and so on. There are many uses to which I can put this charming little gem.

The blade is less than %in wide and is made of PM-V11 steel. For those of you who are aware, PM-VII has some of the best qualities of staying sharp longer, like A2 steel, while being easy to sharpen, such as 01 steel. I've used a few other PM-V11 tools over the past few years and I have to say I am impressed overall, though I still use 01 steel more than any other variety. Change is hard, isn't it?

The 20° blade is a bit unusual. I typically use low angle block planes with a 12° bed angle and sharpen the blade somewhere between 25° and 27°. That gives me an effective cutting angle between 37° and 39°, which cuts end grain nicely. An effective cutting angle of just 35°, as has been designed into this pocket plane, is fantastic in terms of the reduced level of force

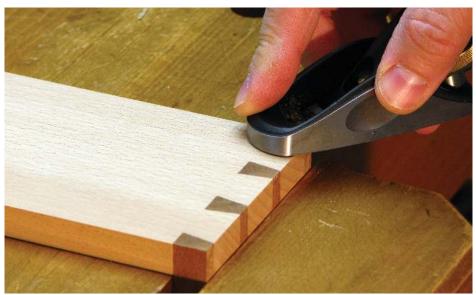




Dismantled, the plane consists of a lever cap, a body with a Norris-style adjuster and blade



A 20° primary bevel onto a 15° bed makes this plane ideally suited to end grain work



Use it to trim the ends of delicate through tenons or dovetail pins

required to push the plane. However, a 20° blade bevel wears rather fast, particularly with harder woods like oak, hard maple and beech, not to mention much harder exotics like bubinga, wenge and teak. I think I would have preferred a more typical bed angle of 12° so that I can sharpen the blade to a higher angle and still have a relatively low effective cutting angle, allowing the blade to

stay sharp longer. Unfortunately, there is a trade-off between ease of use and how often one needs to sharpen a blade and I'm not a fan of downtime in the middle of a job.

One way to correct this issue is to simply grind a 5° back bevel on the back of the blade, which will be on the underside of the plane. This 'thickens up' the blade giving it a 25° total angle at the top instead of 20° and

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will stay sharp noticeably longer. It reduces the clearance angle below the blade by 5°, but the bedding angle of 15° is more than is required anyway.

There is one major advantage, though, to the higher bedding angle of 15° compared to 12°. While I haven't seen much written about the subject, one of the downsides of bevel-up planes in general is that they take a little more blade maintenance when they dull. When the blade starts to wear in use. it develops a tiny bevel on the underside of the blade, which some people call a 'wear bevel'. It is microscopic in size, but it's there. Unfortunately, when a hand plane iron cuts a wood surface, the wood immediately behind the blade springs upward slightly just after it is cut. If the bed angle is too low, the uncompressing of the wood can lift the hand plane up slightly to the point it can no longer operate properly at all. According to some experts on the topic, such as the late, great Leonard Lee, the minimum possible bed angle to get past this problem is somewhere around 8° or 9°. So a bedding angle of 12° comes dangerously close and the 15° bed angle of this particular pocket plane will help.

Just to finish up on the thought process, for those of you who have not read about it, the wear bevel happens on the blade bevel in the case of a bevel-down hand plane. The wear bevel occurs directly behind the cutting edge, which is on the bevel side on a beveldown plane. Since the bevel of the blade is the primary surface ground when sharpening, the wear bevel is ground away rather easily at the next sharpening. In the case of bevelup hand planes, the wear bevel occurs on the back of the blade. Because it is not easily removed by rubbing the flat back of the iron on a stone, that means the tip must be pulled back a little further at the next sharpening on the bevel side. It's a minor point, but still quite noticeable if you use hand planes very much. So, in general, it is harder to get a dull blade back into pristine working condition with a bevel-up plane compared to bevel-down. It's not enough to make me shy away from bevel-up planes because they have so many other advantages, like being able to control the effective cutting angle just by changing the sharpening angle. But, as in all of life, there are advantages and disadvantages at every turn.

To sum up on the issue of the pocket plane having a 20° sharpening angle on the iron, I did find that it dulled slightly faster than what I'd like. I decided to sharpen the blade with a microbevel in the 23–24° range. That gave me a noticeable advantage in longevity of sharpness while still giving me an effective cutting angle of 38–39°, which will still cut end grain nicely. If you'd rather have a lower effective cutting angle, grind a 5° back bevel on the flat side of the blade instead and it will still stay sharp longer.

Keep in mind that you can also purchase a second blade for the pocket plane for just CAD \$29.50. Sharpen the blade to 30° and you have an effective cutting angle of 45°, as with a typical No.4 smoothing plane. Sharpen the blade to 35° to achieve York



Larger areas like the ends of a door stile for example might be more than the pocket plane can handle

pitch (50°), and now you have a plane that can handle moderate reversing grain when planing ordinary long grain surfaces like faces and edges. At this point, you have effectively converted the pocket plane into a standard angle block plane, though in a miniature size.

The real test

Now to the most important part of the equation, which is the question of how the pocket plane performed. Aside from the issue of the blade wearing a bit quicker than I would have liked based on the 20° factory-provided sharpening angle (which I increased to deal with this situation), I have to say that the plane performed admirably. The Norrisstyle adjuster was a joy to use and the size and weight of the plane were very nice. With the plane weighing in at just under 11oz, it was not as tiring to use one-handed as some of the larger block planes. And you can truly carry it around in the pocket of an apron or tool belt if you plan to use it often.

I started by using the plane in original factory condition with the blade as sharpened. The blade was sharp. Interestingly, it did not have a microbevel, just a single 20° bevel. I checked the angle and it was super close to 20°. I set it up to cut just .001in thick shavings or slightly under and then put it to work on a few items.

Firstly, I was working on a small box with a student. Each corner had been joined with finger joints and the fingers were a good 1/64in proud after the glue-up. So we then tried the pocket plane in levelling the fingers flush to the surrounding wood. It cut very well. I still felt the plane benefitted from using two hands in this application as the end grain was quite hard and required a bit of power to slice through.

On another day I had a student in my workshop learning to cut through dovetails by hand. So we both tried the pocket plane to level the pins and tails after the glue-up. Once again, the plane performed flawlessly. One species we were cutting was European beech, which is on the hard side. The other

was black cherry and it was an absolute joy to trim, even one-handed.

I later tried the plane to trim the full end grain of a door stile that had ended up slightly proud of the upper rail after glueup. While the pocket plane was able to do the job, I did find that going back to my Veritas DX60 block plane was preferable, only because the extra weight and size really allowed me to power through the end grain of a stile with dimensions like %in x 2½in. However, I did find the pocket plane super handy for tiny trimming jobs like joinery, trimming dowels in pegged joints and so on.

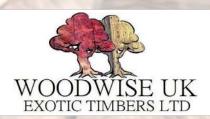
Conclusion

As I said, the new Veritas pocket plane was a real joy to use. Its small size and light weight made small trimming jobs easy. For larger jobs, reach for a regular sized block plane you can really put some muscle into. Remember, too, that I think you'll find the blade stays sharp longer if you add 3° or 4° to the blade bevel in the form of a microbevel (or create a back bevel instead). And you can steepen the angle even higher on a second blade to turn this plane into a standard angle block plane.

Altogether I conclude that this pocket plane is worth having in your arsenal and it's fun to use. Also, at just CAD \$109 with PM-V11 blade, it's very reasonably priced for a tool of this quality.



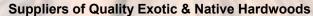
In some instances a conventional block plane like the unconventional Veritas DX60 might be the answer











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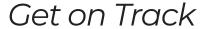
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Raising the joinery float from hand tool obscurity

Richard Wile provides an introduction to this versatile tool



his article is a continuation from the piece I co-wrote with Kieran Binnie (*F&C* 273); while rasps continue to be an under-appreciated hand tool choice, the lowly joinery float is one many have not heard of, let alone used in anger. This article is to introduce the joinery float, discussing its use and how it may become a welcome addition to any maker's tool chest.

A joinery float can help to achieve the perfect mortise and tenon for your furniture projects

Joinery floats

Using a joinery float

A number of methods exist to smooth the mating surfaces of joints during the final fitting stage. Paring chisels are ideally adapted to this role, and rasps work well for the casual user. For those that do lots of joinery involving mortise and tenons, or its many derivatives, a tool designed specifically to help in this work is the joinery float.

A float, while similar to a rasp in many ways, is in fact quite different. Rasps use individual teeth to scratch away material and can leave a rough surface, depending upon the grain of the rasp. A float looks more like a single-cut file with very coarse teeth, but each tooth acts like a plane and scrapes the material away, leaving a much smoother surface, improving glue adhesion in the joint. Floats come in a couple of flavours, joinery floats and planemaker's floats; similar in design but developed for different purposes. Joinery floats are a cross between a file and a rasp and tend to have wider flat surfaces for smoothing the faces and cheeks of joints with a flat reference. Planemaker's floats are like a cross between a saw and rasp, and come in many specialised shapes and sizes to reach into the tiny spaces of wooden planes. Some of these shapes can be used for joinery purposes and craftspeople should have no concerns about using them interchangeably. Floats also come in the push or pull variety, allowing you to buy the version that best suits your style. Most rasps work on the push stroke, and this seems natural for most Western woodworkers, so it seems that joinery floats designed to be used on the push stroke (like most files), would be the place to start. I only use push-style joinery floats. Also floats come in a cranked neck variety to reduce knuckle shaving when jointing a larger face.

I use a joinery float much the same as I would use a file; allow the flat surface to register against the work finding its own flat and take controlled strokes with the pressure necessary for the material and the depth of cut. By varying the pressure, the craftsperson can remove the amount of material specific to the task – a very versatile tool.

A joinery float is very reliable, repeatable tool to clean and fine-tune mortise walls. I often go from mortise chisel to float as it is easy to be aggressive and rough-shape the mortise and then take fine shaving cuts with the same tool when I get close to the final fit. There are times in very hard material it is challenging to take a whisper-thin shaving from a mortise wall with a paring chisel, the float makes this cut without any stress whatsoever.

On a wider tenon cheek, such as a bridle joint, the large flat surface of the float makes it easy to smooth out any unevenness from the handsaw consistently. Much like using a plane, the joinery float is well suited to flattening operations.

My trestle tables use an extended tenon design for the stretcher, and when I do that final fitting to get that satisfying 'thunk' when a piece fits perfectly in its mortise, I use a joinery float. The smooth planing action of



The flat surface of the float ensures your joint shoulders are flat and square, working well on surfaces too small for a shoulder plane



The long flat shape makes alignment easy to square up this bridle joint



The float aligned vertically makes cleaning up the sides of the mortise a breeze



Used like a file, the float will ensure the tenon cheeks are smooth and flat



The Lie-Nielsen Cranked Neck can save skinned knuckles on larger surfaces

the teeth gives a near perfect finish requiring minimal sanding to complete. This eliminates removing too much material while finishsanding, which will impact the fit.

Another key difference between rasps and floats is that floats must be sharpened regularly to work effectively. Think of each tooth as a miniature plane blade, and you get the idea. Once it becomes dull it leaves a rougher surface and does not move across the material as smooth as a sharp

one; that tactile feedback we all know when a tool needs tuning up. (See overleaf for sharpening technniques.)

Currently joinery floats are available from Liogier Tools in France and Lie-Nielsen Tools, available at most hand tool retailers and online sources. Hopefully this article has raised your awareness of this underappreciated and under-used tool enough to consider adding it to your tool chest for those joinery fine-tuning tasks in the future.

LIE-MIELSEN TOOL

F&C282 **53**

Sharpening techniques

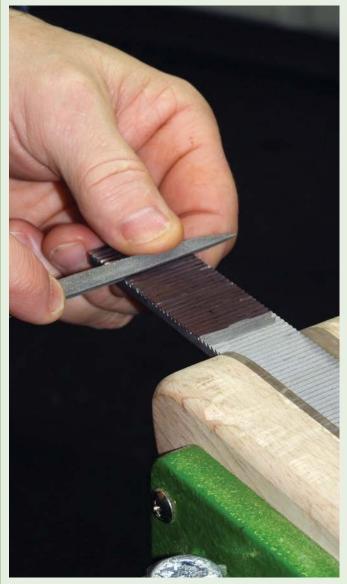
Fortunately sharpening a float is quite simple. Step one in sharpening a float is to mark all the edges with a marker to provide visual feedback on your technique. Any small file that fits into the gullet between the teeth will do the job, but a small fine file with a safe edge ensures you don't inadvertently remove the next tooth. Running the safe edge along the neighbouring tooth also ensures it is filed square to the length.

It also seems the safer route if the file is going against the grain on the float, on a push-style float this means starting at the tip. This ensures that, if you happen to catch the leading edge

of the tooth behind, you will be sharpening it next. Since the float behaves like a plane, only remove enough material to get a sharp edge to avoid creating uneven height teeth. Manufacturers' guidance suggests jointing the teeth with a larger flat file to start, in much the same way as you joint a saw before sharpening. I must say that after five years of use and multiple sharpenings, my float is still very flat across the teeth. Be sure a jointing is needed before unnecessarily removing material, adding to the work of sharpening; place a straightedge along the teeth and look for gaps with a light behind the float.



Checking for flatness before sharpening with a quality reference



Using a file with a safe edge registered against the next tooth, light strokes are all that's required



The end of the float showing the black marker removed from the first few teeth as feedback



The black marker helps to ensure complete coverage and avoid going out of flat





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carriage with telescopic arm and table width extension (TWE) as illustrated. (Both included in prices quoted below.)



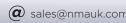
Forsa 8.0



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Forsa 4.0 - P1	Workshop	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 1.6 m	£3,895.00	£4,674.00
Forsa 4.1 - P1	Workshop	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.1 m	£3,995.00	£4,794.00
Forsa 8.0 - P3	Professional	As Illustrated above	6.5 / 1.0 / 415v	107 mm x 2.6 m	£5,420.00	£6,504.00
Forsa 9.0 - P3	Professional	As Illustrated above	6.5 / 1.0 / 415v	107 mm x 3.2 m	£5,575.00	£6,690.00











Fast fixings

Whether it's jigs or kitchen cabinets, fast and furious can be the best solution to solving a problem. Derek Jones shares a selection of knock-down and glueless fixings designed to get you up and running in no time

espite its reputation among some furniture makers, MDF remains one of the most convenient and appropriate materials for constructing all manner of case work. And at the risk of turning people off halfway through, I thought it best to outline straight away where this article is heading. What follows is not a treatise on fine cabinet work in the traditional sense but more a look at some viable options should you need an alternative to building in solid timber. It's easy to dismiss sheet material construction as an inferior way of working but in fact there are some dos and don'ts that make it every bit as technical as traditional joinery. One of MDF's good points as well as other sheet goods is the standard dimensions it comes in; 2mm up to 50mm thick is not uncommon and at varying grades of either density or performance including fire retardant materials and ultra light weight boards. I've found the most reliable type to have on standby is a moisture-resistant grade that is commonly listed with the MR prefix in most dealers' price lists. Typically and by no means exclusively this grade of material will either be green all the way through or have a green tinge towards the middle of the board. A solid beige colour throughout usually signifies a regular grade of MDF.



MDF comes in a multitude of grades and thicknesses each with a specific purpose



All MDF will take on moisture in damp conditions, even the moisture-resistant spec but to a lesser degree than regular boards, making it a better option to have in the workshop. I've known 18mm thick sheets of regular MDF to bulk up to nearer 20mm during the winter months but interestingly don't recall it ever reducing significantly in

thickness from its original dimension during a warm spell. Plywood, even your expensive birch faced variety will suffer the same results in similar conditions. In this respect sheet materials have much in common with solid timber except that once the material has been affected its core structure is largely ruined and therefore generally not fit for purpose.

MDF, what is it good for? For painting there seems to be two schools of thought, which are

For painting there seems to be two schools of thought, which are perhaps best identified by their means of application but also by the type of finish. The edges of cut MDF are extremely porous and cause no end of trouble for spray finishers as they suck up considerably more paint than the face sides. Under these circumstances edges are better sanded to a finer grit than the rest of the sheet and perhaps even primed beforehand. A watered-down PVA solution is one method or a shellac sanding sealer in between sanding grits is another. When applying a paint finish by hand there seems to be less disparity between face and edge material. This is a general observation as some products behave differently and there is no substitute for carrying out a test beforehand. Moulded or profiled edges can be particularly absorbent so are worth experimenting with before you start your finish regime.

For practical reasons leaving MDF untreated or unsealed isn't a good choice for furniture but especially for things like fences on your machines or router tabletops for reasons mentioned earlier. While consistent in thickness it is unstable and when worn is susceptible to delaminating or furring at the edges. These characteristics also mean the material has a limited shelf life for accurate jigs and templates. Moisture resistant MDF will give you a longer shelf life but a seal coat



Because of its uniform thickness MDF makes an excellent sacrificial breakthrough fence

of something like Danish oil or shellac will add extra protection and buy you more time. In a busy workshop it can also help to identify something important from just another piece of scrap.

The go-to material for jigs

A lot of the jigs we use in the workshop, especially if you produce bespoke work, are unique to a specific process and have little use beyond the life span of that project. For convenience and cost MDF is the ideal material for building these and other single-use devices. Formers for laminating are one example although it can take what feels like a disproportionate amount of time and material to create them. Wherever possible it's worth considering if your jig or former

can be dismantled and the parts reused elsewhere. This may mean that you need to explore knock-down methods for construction. The simplest and most basic of which will be a screw.

MDF has a way of behaving which is not unlike solid timber when you drive a screw into it. On the face without a pilot hole, screws can wander off course and lift the surface of the board immediately around the entrance and exit hole of the screw. What's

happening is a slight delaminating of the surface and when two boards are attached face to face in this way it can prevent them from pulling up tight. Pilot holes for the threaded part of the screw and clearance holes for the remainder will go a long way to avoiding this. Treat MDF like you would solid timber and you'll get better and more accurate results. This will be the last time I mention it in this article but the same goes for plywood and other sheet materials.



Cheaper and more dimensionally stable than solid timber MDF is perfect for making large formers



Without a pilot or clearance hole the outer skin can delaminate from the core



Delamination can occur on the exit side of the screw hole as well



The screw may be tight but the swarf around the screw holes is enough to prevent the components from mating together neatly



Create a clearance hole for the full thickness of the screw...



... and a pilot hole for the threaded part

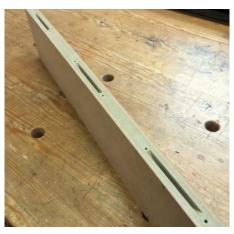
Lining up with biscuits

For carcase work and jig making a combination of screw and biscuit is quick, accurate and may not require clamps to hold the pieces together. For this type of joint you can place your biscuits as if you were carrying out a regular glued joint except that for the ends you need to move the biscuits away from the edge of the board. With the slots cut you can now drill a clearance hole either side of the slot to suit your screw; a 4mm hole for a 4mm screw and so on. The position of the screws in close proximity to the biscuits ensures adequate pressure to close up the joint. A wider spacing might not. You can do this from the inside face by eyeballing the exact position if your jointer is set to cut in the middle of the board. With the mating components dry assembled you can drill through the clearance holes with a pilot hole into the edge of the corresponding board for the

threaded part of the screw. This technique is particularly suited to large panels that may prove easier to handle and install on site if flat packed. If your joint requires gluing, the screws will pull the biscuits up tight and there will be no need for clamps. Failing to drill a pilot hole into the end of the board can cause the material to delaminate as the screw forces its way into the material and as a result widens the slot for the biscuit. A series of fractures like this can create a split along the entire length of the board. You can usually detect a bulge in the board where the screw is located when this happens. Over tightening a screw close to the edge and sinking it below the surface has the effect of pulling the soft core material away from the hard outer skin and delaminating the board. It can also make a nasty hole if the screw is later retracted.



Position the biscuit away from the end of the board and with screw holes close to the slot



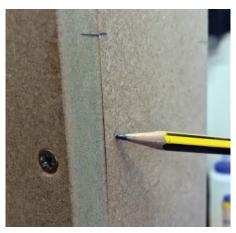
There's generally no need to position screws between the biscuits



Failing to drill pilot holes can cause the material to delaminate and widen the biscuit slot



Sinking the screw too deep can pull the core fibres away from the outer skin



Bulging happens when you don't drill a pilot hole for the screw

Know your drill from your driver



Get to know the features on your cordless and make the most of them

For nearly every size and type of drill used for drilling into wood you will want to run your drill at its highest speed. Of course there are exceptions like hole saws, auger bits and flat bits but for basic twist drills including lip and spur bits fast is best. For driving however, you'll want to select the slower speed. If your machine has only one speed and a clutch mechanism, choose a setting that prevents you from driving the screw too deep into the material. Impact drivers are perhaps not the best tools for cabinet work.



Minimise over tightening by setting the clutch on your cordless if it has one

The case for countersinking MDF

It's worth noting that the material sandwiched between the face surfaces of MDF is generally less dense than the outer layer. For this reason countersinking screw holes is always a good idea and here's why. Once that hard outer layer is broken a screw head can quickly disappear below the surface and compromise the joint. Reversing the screw later can often cause the surface to blow out as the fibres below the surface will have dislodged and engulfed the head of the screw. A countersink reduces the risk.



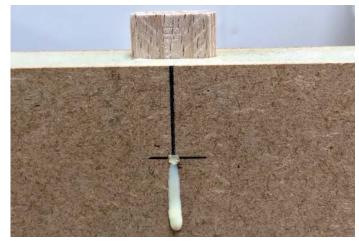
Bury a screw beneath the surface of the MDF without a countersink and...



...it will burst through leaving a nasty blemish should you need to retract it later

Dry fit Dominos

In this instance Dominos work in much the same way as the biscuit but add a little extra strength as the dowel can be extended further into the end of the board. However, as Dominos are known for being a tight fit into their mortises, sinking them deeper into the edge of an MDF board can start off a delaminating process in the core of the material. You probably won't notice this while the joint is dry but add too much glue later and put the joint under pressure to close it and it will soon become apparent. For a lot of commercial work you'll find that not every face is visible and if Dominos are your fixing of choice drill a small escape route for the glue on the non-show face of the board to eliminate the risk of delaminating. To do this capture the depth or plunge setting on your machine and transfer that dimension to a marking gauge or multi square to position the hole at the base of the mortise. A good tip if you know you're going to have to assemble and dismantle a dry joint a few times is to take a handful of Dominos and reduce them in size a fraction by rubbing them over a piece of abrasive. Mark them up with a marking pen and keep them with your regular supply for future use and they'll always come in handy.



Place a hole at the base of the mortise to relieve the pressure and ease assembly. Tip, don't stand in front of the hole when you start hitting the Domino with a hammer

Lamello Clamex P-System

The Lamello Clamex P-System is specifically designed for this type of operation requiring either no glue or no clamps to make a really strong joint. The initial costs aren't cheap as the machine used to cut the slots for them (Lamello Zeta) will set you back between £1400 and £1500. The more expensive version comes with a diamond-tipped cutter. The fixings are cleverly engineered components and depending on how many you buy at one time vary in price but typically around £1 each or £98 for 80. There are

versions designed to fasten boards of different thicknesses and those aligned through a single upright or carcase partition. There are tool-less click fixings in the range (Lamello Tenso) that are slightly cheaper at around £60 for 80. The Lamello Zeta is essentially a very fancy biscuit jointer with some amazing upgrades and options that make it one of the most versatile jointing systems available. And like biscuits and Dominos it can be used on mitred as well as square ends and edge to face joints.

When used in solid timber as a dry joint the long term accuracy and performance of the Clamex family of fixings are largely dependent on the stability of the material. If it expands or contracts the joint could suffer. In reality though, this is nothing new to furniture makers and with a little careful planning such as selecting the appropriate grain orientation it can be minimised or completely eradicated. If you intend to invest heavily in one piece of joinery equipment you could do a lot worse than a Zeta.



An assortment of fixings for use with the Lamello Zeta



Fast, accurate, strong and clampless



Another strong knock-down joint that doesn't require clamps

Festool Domino DF700 Connector

For something along the same lines as the Lamello Zeta and P-System there's the Festool Domino DF700 Connector range. The DF700 is the DF500's big brother designed more for joinery than cabinet work. The Domino dowels or loose tenons it uses are larger than those used on the smaller machine, although there is some crossover. One is not necessarily better than the other, it's all about scale of work. The Connector range of fixings is suited for a material thickness of 30mm and more. The Connectors either expand within the mortise so require a material that can withstand the forces necessary to form a strong joint, or work like a draw bored tenon. This of course might rule out using either MDF or plywood for some applications. As a knock-down joint for solid timber components that avoids having to use clamps it's phenomenal but like the P-System, long term performance and accuracy depends on the stability of the material. It's impossible to make a like for like comparison between the two machines as they cater for different applications but the DX700 machine costs around £1000. A set of connectors suitable for a variety of different joints (SV-SYS D14) costs around £235. The complete repertoire of the Festool Connector system is too great to cover in this article so we'll be covering this in more detail next month.



A starter pack of Connectors with enough components to make various joints INSET: A selection of the Connectors designed for use with the DF700

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Dowel screws

Also known as Conformat and Confirmat screws these are designed specifically for use in sheet material where face to edge joints are required. In MDF they have substantially more pulling power than a regular screw and used in conjunction with a biscuit, a dowel or Domino for location make the strongest joints in this otherwise weak material. The secret to the dowel screw's strength lies in its fine pitch and

coarse thread, which is ideally suited to biting into the fibres of particle board. Key to its performance is drilling the right size clearance hole for the shank of the screw and the pilot hole for the thread. Most suppliers will sell a single stepped drill with these two bore sizes and a countersink combined. Typically the screws are available in two sizes: 50mm and 70mm long and either 5mm or 7mm diameter but others are

available. A range of head shapes and drive types are common including PZ3 cross slot and SW4 hex socket. The stepped drills vary in price from £13 for a simple Snappy version from Trend to about £50 for a precision drill from Hafele. If you mean business and expect to do a lot of work with them the extra investment is worth it. However, as I've found out to my cost they can break very easily.



Dowel screws, note the blunt end making a pilot hole essential



Drill a pilot hole from the inside face to guide the stepped drill



The all in one stepped drill from Hafele for use with dowel screws



Domino and dowel screw are the strongest combination and pull up rediculously tight

Where to buy

For more information and where to buy Lamello Zeta and Festool Domino DF500/700:

www.axminster.co.uk www.scosarg.com www.festool.co.uk Where to buy dowel screws:

www.hafele.co.uk essentracomponents.com www.trade-fixingsdirect.co.uk www.theinsertcompany.com







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Groovers and cutters

t the start of any project, however small, there's always the tooling up phase. It's a ritual I know I share with every other woodworker, furniture maker and engineer on the planet. The process can be as basic as grinding a few new edges and honing a few more so that our hand tools are all in good shape for the task ahead. It may, on the other hand, involve a little number crunching to see if a new machine or piece of equipment will in fact pay for itself by the end of the job and turn out to be a good investment.

Tooling up for me this month meant going in search of some fresh router cutters; a couple of groovers and a spiral downcut cutter for a box project. The groovers, a 2mm and 6mm, I probably already have tucked away in a drawer somewhere along with an assortment of bearings, which somehow never quite seem to be the size I need. Faced with that dilemma, or more to the point wishing to avoid it altogether I did what most of us do and headed online for the catalogue instead. With the right cutters identified and just to be on the safe side, I ordered a new arbor as well. In fact two new arbors, one long one short to cover all the bases. If that sounds a little extravagant bear with me as there's method in the madness when you consider how much faffing around there'd be trying to make up the right set from the jumble of parts I already have. Just as time is money, sharp is the best way to introduce accuracy into a process and a little investment up front generally pays dividends at the end. Oh yes, and next day delivery is not to be sniffed at either.

In short what this amounts to is the sudden realisation that (a) perhaps I need to take more care of my router cutters and (b) that maybe a dedicated storage solution might not be such a bad idea after all. Watch this space, who knows, I may eventually get round to it and even use the groovers in the process.

The argument against even considering such an uncharacteristic display of workshop organisation is to adopt a pragmatic approach and accept that tooling can also come under the heading 'consumables'. At a time when we're encouraged to re-use and recycle as much as possible how is it then that I'm holding on to a couple of kilos of mild steel and compressed dust? The items opposite along with some much-needed technical advice provided over the phone came from Wealden Tool Company. Other outlets exist of course, but you knew that already.

From: www.wealdentool.com

Sjöbergs SB119 Workbench



The SB119 is designed and built in Sweden by Sjöbergs, one of Europe's leading specialist bench manufacturers. Versatility combined with strength and quality makes a highly functional bench for a professional or a demanding home woodworker. Selected European beech used in the construction of the bench ensures a long working life. Sjöbergs finish the bench with premium quality oil for protection. The SB119 is strong, heavy and offers a comfortable working height. If you are a serious woodworker, this sturdy bench will support any project you undertake.

The SB119 includes features generally only found on benches costing much more. The worktop is 1805mm long by 600mm wide (overall including vices 1908mm x 662mm).

The top is 60mm thick with a 110mm apron. The double row of round dogs is usable from both vices and across the worktop. The vices are capable of providing enormous clamping power as well as accuracy and smoothness. The front vice has an opening capacity of 120mm, the tail vice opens to 175mm. Each SB119 bench comes with a set of bench dogs, which also fit into the bench legs for horizontal support. Some self-assembly is required; instructions are included. You can also purchase the bench with the SM05 storage module. Prices start at £999.96 for the bench on its own, the bench and storage module costs £1399.96.

From: www.brimarc.com

Makita 305mm Compound Mitre Saw

The new LS1219 305mm Slide Compound Mitre Saw joins the family of Makita saws that benefit from the new design of the sliding motor head layout allowing it to be operated close to a wall, making it ideal for benchmounted applications. The twin slide rails are set at an angle in the rigid aluminium alloy chassis frame, while the rear chassis fixing is positioned right at the rear of the saw assembly. The robust rails allow the saw head to move forward to cover the total sawing zone without the wasted movement of the motor head passing back behind the sawing zone.

The saw has a no load speed of 3200rpm and features a bigger mitre and bevel range than its predecessor, the LS1216. This new mitre saw has class-leading mitre and bevel capacities - 60° L to 60° R mitre, and 48° L to 48° R bevel. A front knob enables easy bevel adjustment with easy-to-operate mitre angle lock and one-touch sliding head lock. The 12in blade has an impressive 72 tooth count, which has been developed to dampen vibration and be super quiet to enhance the work environment. This also improves both durability and reliability of the saw blade and equipment. A lower vibrating blade produces greater cut accuracy, and also reduces wobble, giving a beautifully cut surface.



The electronic controls feature soft start for machine and operator safety; constant speed control; electric brake; double insulation and a laser marker system on the LS1219L model.

From: www.makitauk.com

Axminster Craft Range

Axminster Tools & Machinery have launched their new range of Craft machines after months of research and development. This replaces Axminster's Hobby Series, which the company felt was being copied by retailers who are not tool and machinery specialists. The new Craft range is aimed at the discerning home user and dedicated craftspeople. Crucially, these machines are affordable with enhanced features not normally found on machines at this level.

Within the range, you will find new lathes, bandsaws, scroll saws, a tablesaw, sanders and grinders as well as some of the existing Hobby machines which have transitioned into the Craft range. Examples within the Craft range include four new bandsaws that are designed to give you more control, accuracy and capacity and have features not found on this level of machinery before, giving you the ability to craft your project the way you want to. These bandsaws are ultra smooth and rock solid with wide trunnions, a ground cast-iron table, extraction ports and new mitre fence. Furthermore, good blade tension ensures smooth cuts.

The AC355WL lathe is regarded as the finest addition to the woodturning range for some time. As with all the lathes in the Craft range, this one is precision ground and has

a powerful motor, variable speed and three belt settings with indexing. To add to that, the

belt settings with indexing. To add to that, the RPM counter is a useful feature especially for beginners. As an added incentive for anyone contemplating taking up the hobby of woodturning, Axminster is offering a free three-hour introduction to woodturning at any of its stores when buying a new Craft lathe. Alternatively, purchasers can upgrade to 25% discount off a two-day course at either

Axminster or Sittingbourne Skill Centre.

So confident are Axminster about the build quality and manufacture of these machines, that they all come with a three-year warranty covering parts and labour.

From: www.axminster.co.uk



Machine Mart Easter Gift Cards

If you're stuck for gift ideas this Easter... why not choose for yourself with a Machine Mart gift card! Machine Mart gift cards and E-Vouchers can hold any value from £20 to £500 and can be used in any of Machine Mart's 64 superstores nationwide, over the phone or online. You can also order them online; an E-Voucher can be sent in a personalised email style, courtesy of Machine Mart, whatever the occasion may be.

From: www.machinemart.co.uk





Hultafors Mini Pocket Spirit Levels

Hultafors' new Mini Pocket Spirit Levels have recently been launched in the UK. The levels have clear-focus vials and are designed for levelling work in tight spaces. The range includes a magnetic version, which is ideal for accurate vertical measuring. The ergonomic design includes a crush-proof vial with a +60% magnifying effect and luminescent effect for easy reading in light or dark conditions. There's also a strong protective casing. The non-magnetic level is available for £17.50, the magnetic version is priced at £23.

From: www.hultafors.co.uk

Blum Catalogue

Blum's product catalogue is always a popular reference book for cabinetmakers. The latest 700-page catalogue not only provides information on the company's latest product range but also supports users along the entire process chain – from planning, design and ordering to assembly, sales and after sales support. QR codes, short URLs and web codes printed right next to products give quick and easy access to more detailed information, such as instructions on assembly and useful digital services. A digital catalogue can be downloaded from Blum's website.

From: www.blum.com



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P.P.D. 230.05

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- · Built-in Sun protector cap
- · Portable & lightweight with flexible neck
- Convenient USB plug with long 2m cable
- · Perfect for use with computers, laptops & other USB power sources



















Shoulder planes

I've singled out shoulder planes in this month's Kit & Tools special as no cabinetmaker's tool kit could possibly be complete without one. Like bench planes, these precision instruments come in all shapes and sizes designed for every scale of work. Their primary function is to trim the shoulders of tenons square to the cheek of your tenon and as such they require the sole to be square to both sides. In practice, however, they are capable of so much more, especially if you choose one with an adjustable mouth, such as cleaning up or adjusting rebates, dados and shaping mouldings.



Lie-Nielsen No. 073 Large Plane

Lie-Nielsen's shoulder planes are useful tools for trimming and improving cut joints, particularly shoulders, rabbets, tenons and grooves. This all-metal shoulder plane is based on the Record 073, which in turn was based on a Preston model. The bronze lever cap on the No. 073 is higher for better grip and closer to the blade bevel for better support. The mouth geometry allows for better chip clearance, while the adjustable mouth and locking screws are large and convenient. The mouth adjustment screw is captured in the front shoe and threaded into the body so it adjusts the mouth in both directions.



Clifton No. 400 Shoulder Rebate Plane

The Clifton No. 400 Shoulder Rebate Plane has a non-adjustable fine mouth for cabinetmakers and those more demanding woodworkers wanting fine shavings in their precision work. At just 80mm long and with an 11mm wide blade it's perfectly sized for small scale work and the bullnose body means it can go where other places can't. Adjustment of the cutting iron is done in the traditional manner by gently tapping the end of the cutting iron and locking the rosewood wedge in place.

From: www.classichandtools.com



Clifton No. 3110

The Clifton No. 3110 is a classic three-in-one plane. This plane can be used as a shoulder plane, adjustable mouth bullnose or chisel plane. As a shoulder plane, the front extension piece is fitted, as a chisel plane all nose pieces are removed; and as a bullnose plane, the thinner nose piece is fitted in conjunction with one or both of the precision machined steel shims (1/32in and 1/64in) or for very fine work, without either shim. If you intend to buy only one shoulder plane in your career, the Clifton No. 3110 ticks more boxes for cabinet work than any other.

From: www.classichandtools.com



Clifton No. 410

Light, narrow and extremely accurate, the Clifton No. 410 is a perfectly proportioned shoulder plane for one-handed use. At just 18mm wide, the No. 410 is perfect for cleaning up machined rebates and housing joints as well as trimming tenons. The cutting iron is considerably thicker than both the Preston original and the later Record versions. It sits on a beautifully machined 18.5° bed with the unbreakable malleable iron lever arm applying pressure directly behind the 25° bevel. The mouth is exquisitely fine, giving a very high standard of surface finish.

From: www.workshopheaven.com



Quangsheng Luban No. 92

The Quangsheng Luban No. 92 shoulder plane is a very precisely engineered tool. The body is cast from unbreakable CR40 alloy steel, which is accurately ground to a fine finish and extremely square. The mouth is adjustable, which in conjunction with exceptionally smooth blade adjustment gives complete control over the cut. The adjuster is based on the same low ratio mechanism used for Quangsheng type 3 block planes.



Veritas Large Shoulder Plane

This plane's size and mass make it perfect for trimming breadboard tenons, adjusting shoulders or even paring down tenon cheeks. At 210mm long and 32mm wide, and weighing 1700g, it brings both authority and precision to larger work. Veritas have introduced a new style lever cap that fits neatly in the palm, incorporating a hardwood lever cap knob that pivots 180°. A multi-positional front knob can be mounted on the top or on either side.



HNT Gordon ¾in Shoulder Plane

This gidgee ¾in Shoulder Plane is 178mm long x 20mm wide and has a ¾in thick x ¾in wide tool steel blade hardened to Rc 62-64. It has a 60° blade angle for planing or 90° for scraping. It can be used for cleaning up the shoulders of tenons across the grain or a rebate with the grain. The blade can also be reversed for use as a scraper.

From: hntgordon.com.au



Axminster Rider No. 92

The Rider No. 92 is cast from fine grey iron precision machined, ground and polished to ensure accurate results. The 19mm blade is a fraction wider than the body making it easier to work into corners of rebates and shoulders. The upper section is movable forwards and backwards to vary the mouth opening. Removing it completely converts it into a chisel plane. A small setscrew inside the body retains the original setting on reassembly.



Veritas Miniature Shoulder Plane

The Veritas Miniature Shoulder Plane weighs a mere 48g and is just 63.5mm long by 6.3mm wide. It's a remarkably effective plane when it comes to fine trimming or cleaning the bottoms of narrow dados. Investment cast from stainless steel, the body has a fixed mouth and accurately machined and surface ground sole and sides. A stainless steel Norris-style adjuster lets you set the 1.5mm thick full-width A2 blade with precision.

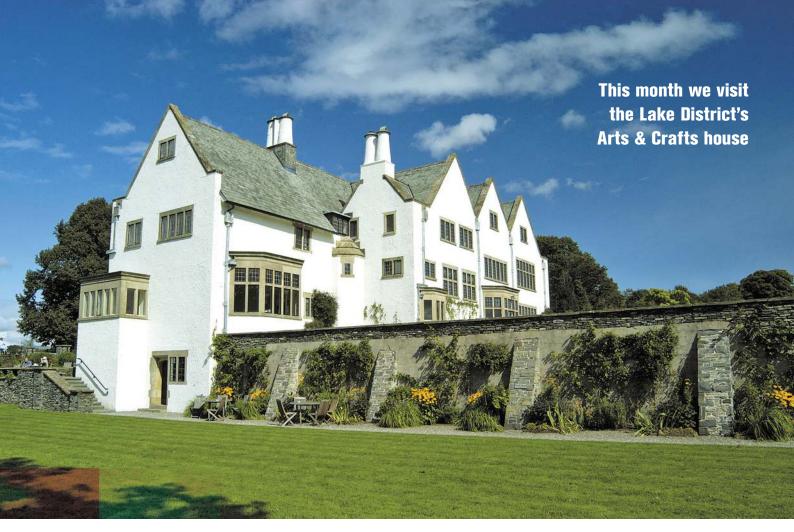


Hock Tools Shoulder Plane Kit

Hock Tools' Shoulder Plane Kit is precision-made from beech and either bubinga or jatob. This easy-to-assemble kit requires only a drill, some glue and clamps, and some shaping to complete. The beveldown blade is bedded at 37.5° for low-angle end-grain planing of shoulders. A high-carbon, %6in thick x %1in wide Tee Blade is included.

From: www.hocktools.com

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Out & about: Blackwell House

verlooking Lake Windermere,
Blackwell is a treasure trove of Arts
& Crafts design. The Grade I listed
building was designed by architect, artist
and furniture maker Mackay Hugh Baillie
Scott, and is filled with work by leading
proponents of the Arts & Crafts style.

History

Blackwell was built as a holiday home for Manchester brewer Sir Edward Holt and his family. In 1890, Mackay Hugh Baillie Scott was hired as the architect and work was completed in 1901. As this was a summer home rather than a full-time residence. Baillie Scott had more scope to experiment putting his ideas on the use of space, light and texture into practice. Located in a prime spot overlooking Lake Windermere, the main rooms are south facing to make the best use of the natural light. The overall design of the house is asymmetrical with the gables providing a complicated profile. The house was made using local slate and sandstone, and the design of the tall, round chimneys follows the traditional local style.

In keeping with the Arts & Crafts ethos, Baillie Scott ensured that a variety of traditional handcrafts were employed to furnish the house. These include handmade tiles in the fireplaces, carved stone and wood panelling, stained glass windows, mosaic floors, wrought iron and lead work, hessian wall hangings and



The Main Hall at Blackwell was designed to recreate the feel of a Medieval courtyard

Blackwell House

beautiful plaster work. These were designed not merely as decoration, but as part of the very fabric of the house.

Sir Edward hired Arts & Crafts garden designer, Thomas Mawson, to plan the gardens. The gardens are arranged in a series of terraces, making the best of the spectacular lake views.

The Holt family used Blackwell as a holiday home until the 1930s. In 1941, pupils from Huyton College near Liverpool were evacuated to Blackwell and the house was then used as a school until 1976 when it became an office. In 1999 Blackwell was purchased by Lakeland Arts, an arts and heritage organisation based in northwest England. Blackwell was lovingly restored to its former glory and was opened to the public in July 2001.



ABOVE & BELOW: The Main Hall is filled with ornate carvings and decorations, many inspired by nature









The Master Bedroom was furnished by contemporary makers. The bed was made by furniture restorer and maker Robert Leach

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Stained glass panel from the Bedroom

What to see

Several rooms are open to the public, including the Main Hall, Dining Room, White Drawing Room and the Bedrooms. On display are furniture and objects by many of the leading Arts & Crafts designers and studios. These include metalwork by WAS Benson, ceramics by Pilkingtons and Ruskin Pottery and furniture by Morris & Co., Stanley Webb Davies, Ernest Gimson and Baillie Scott himself. As well as these original items, some rooms contain careful reconstructions. The Master Bedroom is furnished with items made by contemporary designers, inspired by Baillie Scott's plans and ideas. The bed was made by furniture restorer and maker Robert Leach and is based on a design published by Baillie Scott in the Pyghtle Works catalogue in 1901.

Blackwell also hosts a permanent display called The Arts & Crafts Story, which includes items by William Morris and Charles Annesley Voysey and introduces visitors to the key figures behind the movement. There are also regular temporary exhibitions focusing on historical Arts & Crafts as well as the work of contemporary designers. Modern-day makers and crafters are also supported in Blackwell's shop, where you can find jewellery, textiles, ceramics, silver, glass, metalwork and wooden items made by crafters who uphold the ethos of the Arts & Crafts movement.







Mackay Hugh Baillie Scott

Baillie Scott was born in Kent in 1865, the son of a wealthy Scottish landowner. After gaining a degree from the Royal Agricultural College, he decided to study architecture. He attended the Isle of Man School of Art and lived on the island for 12 years, during which time he designed his own family home, the Red House. He began developing his 'ideal house' and published his sketches and ideas in The Studio, a magazine about art, architecture and interior design. Baillie Scott's personal version of the Arts & Crafts style involved simple architecture, precise craftsmanship and integrated interiors that combined beauty with function. He produced nearly 300 buildings over the course of his career as well as designing furniture, fabrics and wall coverings. He died in Brighton in 1945.



Armchair by Baillie Scott



Piano by Baillie Scott



WHERE ELSE TO SEE... **Arts & Crafts houses**

Cragside

Northumberland, UK www.nationaltrust.org.uk/cragside

Emery Walker's House

London, UK

www.emerywalker.org.uk

Goddards House

North Yorkshire, UK

www.nationaltrust.org.uk/goddards-

house-and-garden

Kelmscott Manor

Kelmscott, Oxfordshire, UK www.sal.org.uk/kelmscott-manor/

Red House

London, UK

www.nationaltrust.org.uk/red-house

Standen House

West Sussex, UK

www.nationaltrust.org.uk/standen-houseand-garden

Information for visiting

Address: Blackwell, Newby Bridge Road, Bowness-on-Windermere,

Cumbria LA23 3JT

Website: www.blackwell.org.uk Opening hours: Open daily

10.30am-5pm

Charges: Adults £8.80 (with Gift Aid); free entry for Friends, Patrons, Benefactors, Students and Under 5s;

6-16 year olds by donation

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



Sideboard by Baillie Scott

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Social media dashboard

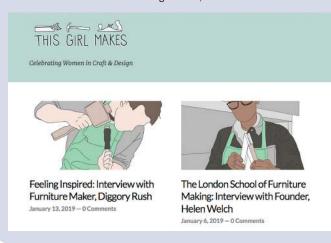
Bringing you a round-up of the best from the online world, plus a selection of the latest projects that have caught our eye

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: This Girl Makes

This Girl Makes began as a blog in 2016 and has since expanded into a full website celebrating women in the design and craft industries. The site features interviews with women from diverse backgrounds, as well as

providing details of upcoming events and practical workshops. The site's founder, Harriet Poppy Speed, also gives regular talks about her experiences as a furniture designer and maker. **Address: this-girl-makes.com**





Instagram: The Furniture History Society

The Furniture History Society is new to Instagram, so they don't have an extensive roll of photos to browse just yet, but we think they're one to follow. Their account will help them in their mission to 'increase the knowledge, appreciation and

preservation of furniture'. You can expect to see fantastic examples of antique furniture, plus photos from the Society's many workshops and events.



Address: @furniturehistorysociety



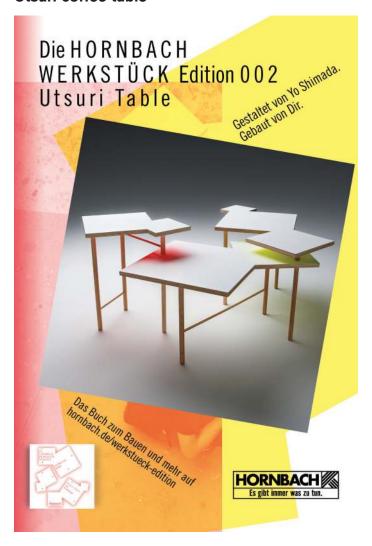


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Projects we love

Here we highlight the latest furniture and woodworking projects from around the world that we think deserve to be shared with our readers. If you're a member of a collective or a student group and would like to see your work here, then submit a story to: **derekj@thegmcgroup.com**

Utsuri coffee table



Utsuri is a multi-layered coffee table designed for consumers to make themselves at home using the kind of standard, budget materials that can be bought at any DIY store. It was designed by Japanese architect Yo Shimada of Tato Architects for the German DIY warehouse Hornbach.

Hornbach has published a book of the assembly instructions, they also sell all the materials needed to make the table. On average, the total materials should cost around 150 euros.

The table is designed to be multifunctional, making it ideal for smaller homes. It is mounted on dowel legs, with three overlaid square tabletops placed at different levels. These tabletops can be rotated around each other in different configurations. The width of the table can also be adjusted. Shimada took his inspiration for this from the traditional Japanese chabudai table – a low-lying table with four collapsible legs that is set up in the middle of a tatami mat room and serves a variety of functions.

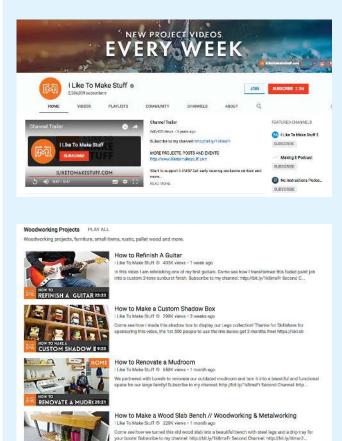
Another nice feature of the table is that the undersides of the table tops are spray painted with neon paint. This creates a glow of colour on the white surfaces beneath, which varies in intensity at different times of the day.

www.hornbach.de & tat-o.com

YouTube: I Like to Make Stuff

Bob Clagett, the man behind I Like to Make Stuff, will be appearing at this year's Makers Central event (see page 20 for details). His YouTube channel features videos of him making all sorts of 'stuff', with projects including woodworking, metalworking, electronics, 3D printing and prop making. With so much content, you're sure to find something to educate or inspire you.

Address: www.youtube.com/user/iliketomakestuffcom





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An airbrush with the past

This month we're going back to October 1997 and issue 10 for another look at Bill Clayden's dome-lidded chest

y first impression on seeing Bill Clayden's dome-lidded chest was, what a monster of a piece! Not in relation to its shape and size you understand, but with regards to the belt and braces approach to construction. In essence it's a simple frame and panel construction for the box with a coopered lid. But look closely and you'll notice a few details that hark back to Bill's experience as an apprentice shipwright.

The joinery throughout is robust and follows many of the basic principles of construction including secret haunched tenons and dovetails. What distinguishes an excellent craftsman from a good one is the capacity to select timbers that are not only appropriate for the task but also placed within the structure to appear in harmony with the form. The frame for the box was made from a single board of ash approximately 50mm thick. Each post was cut and oriented to display a similar grain pattern on the two exposed faces; a trick often used by chair makers to avoid any inconsistency in colour and grain between the leas.

The overall dimensions for the chest were determined by the decorative panels of yew. The boards were planed to a thickness of 8mm and bookmatched onto slightly larger 6mm-thick panels of cedar of Lebanon with Cascamite. The double skin panels were then retained in grooves around the frame in a loose fit with just a dab of glue top and bottom in the middle to allow them to expand or contract as need be. The sapwood of the yew creates an illusion of extra muntins.

The elephant in the room in case you haven't noticed is that domed lid. The frame was made from ash once again with beams dovetailed into the front and back parts. The planks that cover the top are made from a two-piece lamination of ash and cedar. The reason for this is twofold; firstly the lamination is inherently stronger than a one-piece plank and not susceptible to spring back at the ends, and secondly it allows continuity of material both inside and out. The planks are glued together over a common former matching the curve of the lid left to right to the same width. The first plank was laid in the middle, i.e. the top of the dome with corresponding planks in the sequence each side shaped by hand to fit. Bill used a set of dividers to mark off the

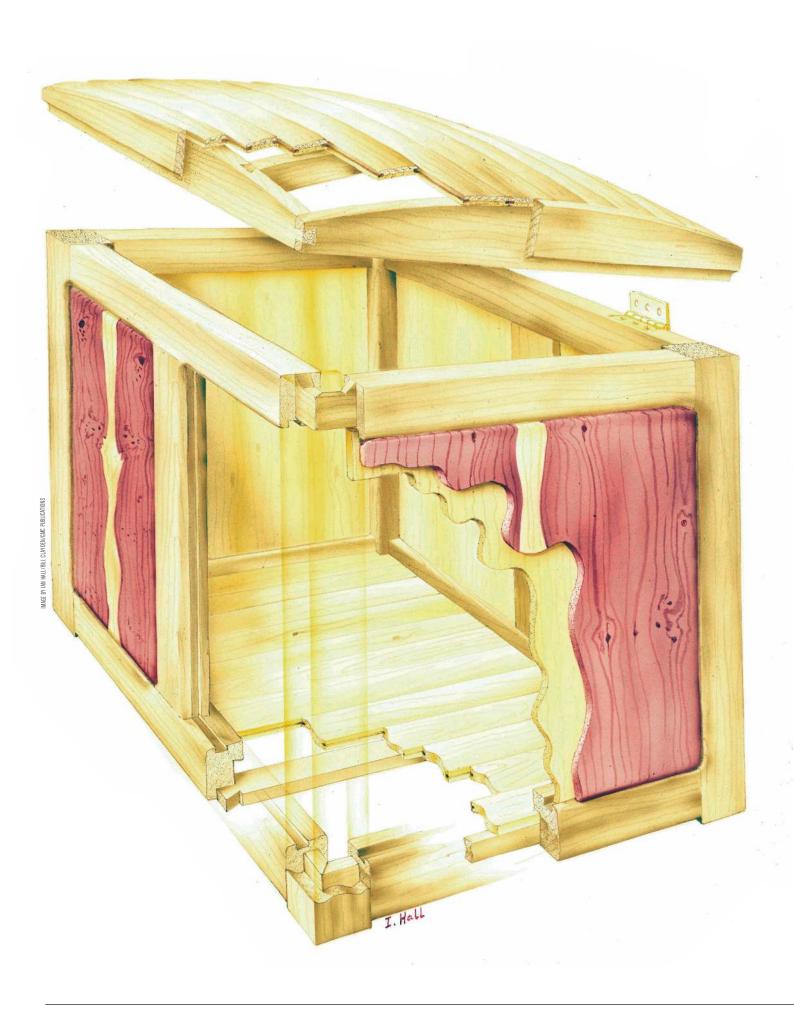
curve down the long edge. A mathematical progression was used to reduce the width of each plank equally as the dome was completed. The planks are aligned with a loose tongue made from ash, a groove being cut on the router table beforehand and glued to the frame at the ends and across the beams. In the boatyard one might expect to fasten these with either screws or nails but Bill opted for an uncluttered look and after four years (at the time of original publication) they were still holding. The lid is finished with an apron applied to all four sides with mitred corners to conceal the end grain of the planks.

I think this has got to be the one of most complicated and time-consuming projects for a chest we've ever had in F&C, notwithstanding those which feature wooden hinges. And that's mainly because it involves tricks from another trade that are perhaps alien to most cabinetmakers. In fact there's no better way to advance your cabinetmaking skills and increase your design portfolio in the process than by studying how other craftsmen solve problems.

Next month

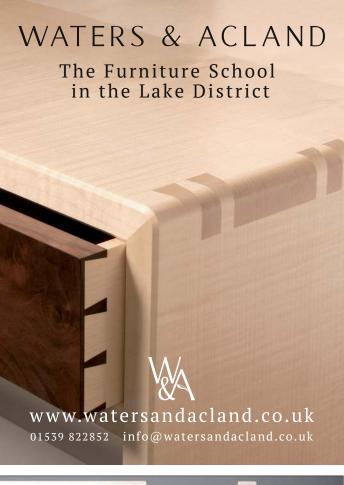
Next month we're heading back to December 1998 and issue 23 for another look at John Bailey's display cabinet.



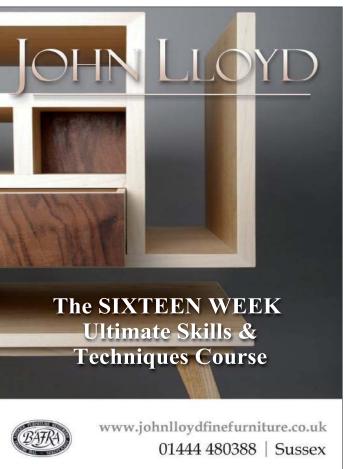


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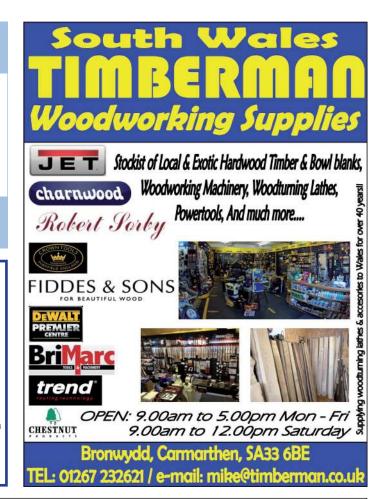


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