Furniture & cabinetmaking

DESIGN • INSPIRATION • PROJECTS • TECHNIQUES • TESTS • NEWS • EXCELLENCE

Robert Ingham
Quatrefoil box

Technique
Train your body to work smart

Keep it simple
Stress free box assembly

Swedish sustainability
Meet the furniture making trio with more than one axe to grind

Project
Make simple but stylish ash wall lights

Preserve & protect

Under the hammer

Youmin Vincent Kim

IF IN DOUBT ...
... USE A HAMMER®

Hammer®
The obvious choice!

Combination Machine
C3 31

HAMMER - A range of over 20 machines for the keen and professional woodworker.

FELDER-GROUP UK
Unit 2, Sovereign Business Park, Joplin Court
Crownhill, MK8 0JP MILTON KEYNES
Tel. 01908 635 000 info@ukfelder.co.uk

www.ukhammer.co.uk

Request your free catalogue now!

Panel Saws


K4 perform


K3 winner comfort


K3 basic

Planer-Thicknessers/Planers/Thicknessers


A3 41


A3 31


A3 26


A3 41 A


A3 41 D

Spindle moulder


F 3

Saw Spindle Moulders


B3 perform


B3 winner


B3 basic

Combination Machines


C3 31 perform


C3 31

Bandsaw


N4400
N3800

Horizontal Mortiser


D3

Mobile Dust Extractor


AF 14

Belt sander


HS 2200

HAMMER
Quality and precision from
AUSTRIA

www.ukfelder.co.uk

FELDER®

Quality and precision from AUSTRIA

We think this is the world's best combination machine and so do our customers

Contact us to find out why

01908 635 000, info@ukfelder.co.uk
Unit 2, Sovereign Business Park, Joplin Court, Crownhill
MK8 0JP MILTON KEYNES

THREE IN ONE

Router & Trimmer

RT0700CX4
- Trimmer base

RT0700CX2
- Trimmer base
- Tilt base
- Plunge base
- Carry bag

Variable Speed Control

Aluminium Body

Precision Depth Adjustment

Interchangeable Bases

Plunge Base
195563-0

Trimmer Base
195560-6

Tilt Base
195561-4

Spindle Lock
Accepts 6mm & 8mm (1/4" & 3/8") collets.

WATCH THE VIDEO ONLINE

Trimmer Base
- Enlarged opening section of base assembly for excellent bit visibility.
- Round base assembly for smooth and fast cutting.

Tilt Base
- Enlarged opening section of base assembly for excellent bit visibility.
- Tilting capacity: -30˚ to 45˚

Plunge Base
- Ergonomically contoured handles.
- 3 stage cut depth adjustment.
- Plunge capacity: 0 - 35mm (0 - 1-3/8")

Woodworking range
Scan the QR code or visit www.makitauk.com

3 YEAR WARRANTY

Visit www.makitauk.com to register for your Makita 3 Year Warranty.
Terms and conditions apply.

Follow Makita UK

Welcome to...

the value of sharing information

PHOTOGRAPH BY GMC/DEREK JONES

Cutting a shallow rebate on the inside face of the tailboard for dovetailing – a lightbulb moment for me!

If there's a lesson to be had this month it's got to be that sharing information is perhaps the greatest contribution we can make as woodworkers. Does it matter where that information comes from? Not in my book, as long as it's good information. I've picked up a couple of useful tips this month from people and places I wasn't expecting to. The first came from John Lloyd; the second from luthier, Kieran Binnie. Learning new tricks is pointless unless you implement them and it's only through repetition, enforcing the lesson, that they become second nature. Net result: improved woodworker.

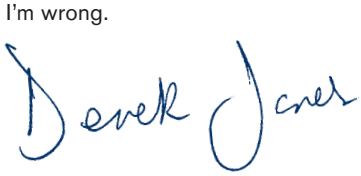
Continental methods

If like a couple of readers who wrote in about John Lloyd's recent epiphany in the Black Forest – see *F&C* 225 – you'll no doubt be following his example and using the continental method of a triangle symbol for laying up components. I witnessed the technique in use for the first time this summer as Chris Schwarz guided a group of students through building a tool chest. Using a common language certainly helped them help each other when faced with some of the two-man steps, such as carcass assembly. I've since tried it out for myself and recommend it highly. The second lesson, more of a reminder really, came from our correspondent Kieran Binnie this month and his 'go sticks' – see page 46. Coincidentally, they came in handy on the same project that brought Kieran and I into contact in the first place. There's a lot we can draw from this and I guess we all have similar stories, but I wonder how many good suggestions get lost before we get round to putting them into practice?

Master of technique

Some things we learn the hard way: I have a scar on the tip of my left thumb to prove it, whereas others are less traumatic. I nearly always play out the sequence of events that resulted in the injury in my head as if to reinforce the message every time I switch on a bandsaw. I don't know if that's particularly important or even helpful to anyone else, but it does make sure I make the most of every experience, good or bad.

We're going to take a look at technique in some detail over the next few months with Jeff Miller. Jeff, if you don't know, is the go-to master of bench craft efficiency. If John, Paul, George and Ringo were woodworkers, then they would call him Yogi. We're not that far gone so we're just going to stick with Jeff. My advice, and remember you need to act on it for it to count, is read these words of wisdom once, twice and thrice if necessary, until they stick in your head and then go and put them into practice. My personal lightbulb moment this month was the introduction of a shallow rebate on the inside face of the tailboard for dovetailing. Doesn't sound life changing, does it? I'll get a demo up on the blog for you to try out yourself, then you tell me if I'm wrong.



Derek Jones
derekj@thegmcgroup.com

Furniture &cabinetmaking

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

DEPUTY EDITOR Tegan Foley
Email: tegant@thegmcgroup.com

DESIGNER Oliver Prentice

GROUP EDITOR – WOODWORKING Mark Baker
Email: markb@thegmcgroup.com

SENIOR EDITORIAL ADMINISTRATOR Karen Scott
Email: karensc@thegmcgroup.com
Tel: 01273 477374

ILLUSTRATOR Simon Rodway

CHIEF PHOTOGRAPHER Anthony Bailey

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@thegmcgroup.com
Tel: 01273 402810

PRODUCTION CONTROLLER
repro@thegmcgroup.com

CIRCULATION MANAGER Tony Loveridge

MARKETING Anne Guillot

SUBSCRIPTIONS Helen Christie
Tel: 01273 488005, Fax: 01273 478606
Email: helenc@thegmcgroup.com

PRINTED IN THE UK
Stephens and George Print Group

DISTRIBUTION Seymour Distribution Ltd
Tel: 020 7429 4000

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

SUBSCRIPTION RATES (includes p&p)

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

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

Cheques made payable to GMC Publications Ltd
Current subscribers will automatically receive a renewal notice (excludes direct debit subscribers).

Post your order to: The Subscription Department, GMC Publications Ltd, 166 High Street, Lewes, East Sussex BN7 1XU Tel +44 (0)1273 488005, Fax +44 (0)1273 402866 Email: pubs@thegmcgroup.com Website: www.thegmcgroup.com

Problems finding F&C? Call Tony Loveridge, our Circulation Manager, on 01273 477374 or email him at tonyl@thegmcgroup.com Alternatively, save up to 20% on the cover price by subscribing. Visit www.thegmcgroup.com/publications

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

Contents

Issue 227 January 2015

Robert Ingham shows us how he made his quatrefoil box – see page 23. Front cover image by Robert Ingham

Projects & Techniques

Design & Inspiration

Your *F&C*

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

Contribute to these pages by telling us about matters of interest to furniture makers. Call Tegan Foley on 01273 402 839 or email teganf@thegmcgroup.com. Please accompany information with relevant, hi-res images wherever it is possible

News&Events

New English Workshop Summer School 2015

The summer of 2014 will be remembered among woodworkers as the year that brought the classic English tool chest home. A design that has been transported around the globe for centuries, it has become the symbolic emblem of a true craftsman. Lightweight and built to withstand the rigours of a typical journeyman, the hand tools inside have quite literally shaped our world.

Nowadays, a new army of would-be artisans are championing a hand tool renaissance as more of us realise the true value of handmade goods over mass-produced hybrids. It's a quiet revolution of sorts, aimed squarely at rekindling our relationship with the things we need and use every day. The Anarchist's Tool Chest – after the book by Christopher Schwarz – is now the mark of the modern artisan and New English Workshop held the first course in the UK this year to show 36 students how to build their own chests and make their mark in their chosen craft discipline.

The event was hosted by Warwickshire College in Leamington back in July and saw a total of five students gain a free place on the course. Additional funds are being raised for the college by auctioning off the tool chest built by Christopher Schwarz and contents donated by vendors and artisan tool makers from around the world.

Plans are already underway to make this an annual event held at two sites in 2015, with a line-up of some of the most influential woodworking professionals that have ever been to the UK. There are courses to suit the genuine first timer on limited funds, up to advanced practitioners looking to hone their skills. To be part of the handmade revolution and to book a place on one of next year's courses, see www.newenglishworkshop.co.uk.

PHOTOGRAPHS COURTESY OF NEW ENGLISH WORKSHOP

Christopher Schwarz, the man behind the Anarchist's Tool Chest

Ed Sutton cuts the slope on his Dutch tool chest by hand using his 'shop made saw bench

Normann Copenhagen launches the 'Tap Stool', designed by Simon Legald

The 'Tap Stool' from Normann Copenhagen has three moulded legs and a round wooden seat. It can be used as extra seating and is easily stackable. We all know it well; the archetypal three-legged stool. Nearly everyone has had a variation of it in their home at some point in their lives, but its design is often taken for granted.

The designer of the stool, Simon Legald, has taken up the challenge and breathed new life into the traditional stool with original materials and details. In doing so, he has created a practical and beautiful design in the cross field of craftsmanship and industry. 'Tap' is an unexpected, different, yet familiar stackable stool, which is in a class of its own.

Slightly hard foam has been used for the seat, which, like rubber, has a flexible, sealed surface. This makes the stool dirt-resistant, durable and easy to clean. The moulded seat ensures good seating comfort and provides the stool with the same welcoming warmth known from upholstered furniture. The three legs have an integrated transition to the seat; this gives 'Tap' the appearance of a unified whole, even when seen from the side. 'Tap' is available with oak (*Quercus spp.*) or walnut (*Juglans spp.*) legs and seat colours in classic black, grey or one of three warm, rich colours. Use it as an extra seat or to rest your feet on when tired. For more information, see www.normann-copenhagen.com.

PHOTOGRAPH COURTESY OF NORMANN COPENHAGEN

The 'Tap Stool' from Normann Copenhagen

Dovetailors make memorial plaque

PHOTOGRAPH COURTESY OF DOVETAILORS

The special memorial plaque, which was made using CNC techniques and traditional hand carving

Dovetailors recently delivered their completed oak *(Quercus spp.)* memorial plaque for University of Edinburgh's Royal School of Veterinary Studies. It was commissioned to coincide with the 100th anniversary of the start of World War I and included the names of university alumni who lost their lives in the South African War, The Great War and World War II.

The team said it had been a rewarding project that demonstrated how computer-assisted design technology and traditional carving techniques can work hand in hand. The project involved updating and improving the existing plaque and a CNC machine was used to carve the names. A decorative frame featuring attractive oak burr detailing was also added. "The finished plaque is a thing of real beauty, which is a symbol of strength and endurance. It has been really touching to work with the real names of people who have sacrificed so much and we have approached this project in a respectful way," David said. For more information, see www.dovetailors.co.uk.

Kebony and Bliss announce second collaboration at Greenbanks, Norfolk

Kebony and Bliss have announced their latest collaboration, a lateral house in Holt, Norfolk. Designed by Bliss, the property provides open, spacious living in a 'Scandi meets North Norfolk' setting with subtle, modern interior finishes and high tech features. The ground-breaking and environmentally-friendly project, Greenbanks encompasses approximately 2,180 sq.ft of inspirational living space on just one level.

Kebony's non-toxic, low-maintenance, durable and aesthetic wood has been used for the exterior cladding, contributing to the modern look and feel of the building. Over time the Kebony wood will adopt a beautiful silver grey patina, which will complement its rustic setting near the coast. Greenbanks is the second UK residential project with Bliss for Cleantech 100 company, Kebony.

PHOTOGRAPH COURTESY OF THE COMMUNICATION GROUP

Kebony and Bliss' latest collaboration

Makita supports TeamRun 12 and raises money for breast cancer charities

Makita UK has donated pink cordless drill drivers to Team Run 12 as a contribution towards their challenging fundraising programme. Led by 23-year-old Becky Beard, the team's aim is to raise £25,000 for Cancer Research UK and Breast Cancer Care (BCC) in 2015.

Becky has set herself a goal to run 12 marathons in 12 months, including in London, Wales and New York, and having now completed nine of the events the team has already raised £19,000. Becky has every confidence that the £25,000 target will be met.

The Makita drill is a pink version of the DF330D Lithium-ion, 10.8V drill driver, complete with one 1.3Ah battery, fast charger, drill bit set and carry case. Popular with professional construction workers it is small and compact and ideal for DIYers who want to get busy around the home.

Visit www.teamrun12.co.uk for more information about Becky's excellent work and for more information about Makita UK, visit www.makitauk.com.

PHOTOGRAPH COURTESY OF MAKITA

Makita's Mak1485 pink drill for Breast Cancer Care

TIMBER TRADE NEWS

Pinhole borers

PHOTOGRAPH COURTESY OF IDTOOLS.ORG

An example of *Scolytus scolytus*

Scolytid beetles bother woodworkers in several ways. Dutch Elm Disease, which was featured in *F&C* 220, is spread from diseased to healthy elms by the elm (*Ulmus procera*) bark beetle *Scolytus scolytus*. Other species attack weakened, stressed or recently felled trees. They may also attack healthy standing trees if the bark has suffered local damage or disease, for example bark canker. In completely dead timber there is no reaction and the borer creates a simple 'pinhole' similar to a woodworm hole in furniture. If the timber is still living, the tissues may react to produce a stain around the hole, which is not structurally damaging, but can be unsightly. In some trees the borehole allows the entry of pathogenic fungi, such as *Phytophthora* and *Fusarium* species, which spread internally in the trunk and may kill the tree. In the UK these beetles are also known as shot-hole beetles and one species, *Xyleborus dispar*, attacks fruit trees: the adults bore into the trunk and lay eggs, the larvae feed on fungi associated with the tunnels and adults emerge the following spring. The presence of the beetles is revealed by piles of fine sawdust, or accumulations of sticky gum. Control is difficult and badly affected trees should be destroyed.

Chris Prior

ERRATUM: With reference to 'Timber Trade News' in issue 226, the last line should have read: "threat to *introduced* rhododendrons". Garden rhododendrons are not native to the UK; they have been introduced from many countries, particularly in eastern Asia

PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

The lifecycle of a beetle in the *Scolytus* genus

TTJ award winner designs this year's award trophies

The former winner of a Timber Trade Journal Award, entrepreneur Kenny McFarlane has produced and constructed this year's technically innovative TTJ award trophies, as his career comes full circle. Having attended the prestigious event in 2010 where he was the recipient of the TTJ Career Development Award in the under-25 category, Kenny received a plethora of further prizes before launching his highly successful business, bespoke hardwood stair rail producer Handrail Creations.

Kenny founded Handrail Creations where he now designs and produces bespoke timber handrails for residential and commercial projects. Clients looking for decadent, sweeping rails that encapsulate a sense of grand opulence can work in tandem with the company for a striking service that completely revolutionises a home or business. Incorporating the efforts of architects, contractors and designers, all projects are constructed using American and European white oak *(Quercus alba)*, black walnut *(Juglans nigra)*, ash *(Fraxinus excelsior)* and sapele *(Entandrophragma cylindricum)* for a unique design constructed with each individual's specifications in mind. Working in unison with a range of esteemed suppliers, the company is also seeking an eco-friendly FSC certification, certifying that it refuses to use unsustainable rainforests in its manufacture.

PHOTOGRAPH COURTESY OF DAKOTA DIGITAL PR

Kenny McFarlane working on the trophies for the Timber Trade Journal Award

Constructed from sapele, the trophies were ebonised in four coats of finish right down to the grain and wire wooled to provide a high gloss finish which has proved popular with clients. The shape of the trophy is complexly forged to look like a geometrically perfect double helix to wow winners. The ceremony, which has been running for 18 years, showcases advancements and pioneering figures within the timber industry and helped catapult Kenny to cataclysmic heights with his design, manufacturing and installation service. To find out more about Handrail Creations, visit www.handrailcreations.co.uk.

You've seen the film, now buy the furniture

Have you ever watched a film and paid more attention to the décor than the actors? Would you like to kit out your home in the style of James Bond, Kubrick or Wes Anderson? Form co-founder Paula Benson is launching an online resource that will help film fans find the furniture featured in their favourite movies.

The Film and Furniture website will provide features on films, directors and furniture and give guidance on where to find a particular piece featured on the screen.

Paula Benson says she is launching the site as a 'magazine-style' resource, which she says will develop into a more in-depth resource, with brand tie-ins, pop-ups and associated screenings. She goes on to say: "As a teenager I used to sketch out my imaginary future house with all its décor and furniture. While I was doing so, my imagination was totally lost in the world I was creating – the look, the sensations and the conversations – like a film set. Whenever I watch a film I find myself losing the plot while studying the contents of the set – be it a Knoll Barcelona chair in *Tron* or a B&B Italia bed in Bond."

PHOTOGRAPH COURTESY OF FILM AND FURNITURE

Jack and Wendy's bed from *The Shining*

Benson with Form Partner Paul West has created all the Film and Furniture brand and website designs, including laser-etched 3mm polished black acrylic business cards. For more information, see www.filmandfurniture.co.uk.

Dutch Design Week 2014

PHOTOGRAPH COPYRIGHT JEROEN VAN DER WEEEN

A piece from the Scholten & Baijings stand

The 13th Dutch Design Week was held in October, 2014 and took place in Eindhoven. DDW is a renowned international design festival held in the Netherlands, which, this year, featured over 1,800 designers, all of whom presented unparalleled ideas, individualistic works and insightful designer solutions. DDW is a platform for innovation and inspiration with a sophisticated blend of fresh talent, successful designers and established bureaus. The event this year also showcased three design areas over 80 locations, with over 400 events, exhibitions, workshops and seminars. For more information, see www.ddw.nl.

PHOTOGRAPH COPYRIGHT SJOERA EICKMANS

A piece displayed within the exhibition

Events

PHOTOGRAPH COURTESY OF DAVID BARRON

Students from David Barron's dovetailing course at West Dean College

PHOTOGRAPH COURTESY OF WWW.HOME-LONDON.NET

A typical scene from this visually pleasing event, Home, at Olympia London

PHOTOGRAPH COURTESY OF WWW.DEZEEN.COM

Design fireworks for the New Year: IMM Cologne and the city are going to make some noise

Taking care of your furniture course

This course, held at West Dean College, is suitable for beginners and intermediate students and teaches you to learn to analyse your piece of furniture and then, with the tutor's support, apply techniques and materials to clean and improve old finishes and consolidate and strengthen the object. Minor repairs can also be carried out. The tutor is Norbert Gutowski and prices start from £321.
When: 2–5 January, 2015
Where: West Dean College, West Dean, North Chichester, West Sussex PO18 0QZ
Web: www.westdean.org.uk

Make simple furniture – for complete beginners

Designed for the beginner, this course, also held at West Dean College, is tutored by furniture maker Tom Kealy and allows you to learn basic woodworking techniques and gain practical insights into making furniture by producing a small bench. Suitable timber is supplied at cost and all essential tools, hand planes and chisels will be provided. Prices start from £321.
When: 8–11 January, 2015
Where: West Dean College, West Dean, North Chichester, West Sussex PO18 0QZ
Web: www.westdean.org.uk

Home

Home brings together an impressive cross-section of stylish, high to mid-market homeware products from a range of British and international companies. A section of the exhibition, called Homegrown, will be dedicated to emerging British designers.
When: 11–13 January, 2015
Where: Olympia London, Hammersmith Road, Kensington, London W14 8UX
Web: www.home-london.net

The January Furniture Show

The January Furniture Show is set to launch the furniture industry buying cycle for 2015 in the UK and internationally. The show attracts the industry's major names and is endorsed by the British Furniture Manufacturers Association as the best place for its members to do business.
When: 13–15 January, 2015
Where: The NEC, Birmingham B40 1NT
Web: www.januaryfurnitureshow.com

IMM Cologne

The IMM Cologne show presents all the trends that will be shaping the furniture and interiors sector over the coming year. IMM will be attended by renowned international exhibitors and will showcase inspiring design ideas. As well as established designers, two sections of the show will highlight the work of young talent.
When: 19–25 January, 2015
Where: Koelnmesse, Messeplatz 1, 50679 Cologne, Germany
Web: www.imm-cologne.com

Winter Decorative Antiques & Textiles Fair

This event is the most stylish and beautiful antiques and period design event in the UK. In 2015 it will celebrate 30 years of business and this year features an Alpine-inspired retreat in the Foyer. Discover antler and Black Forest furniture, beautifully upholstered seating, French and Swedish painted antiques, decorative period rugs and hunting trophies. While collectors may come to buy fine furniture, objects and art, new younger customers are also delighted to find affordable 'entry level' purchases such as £15 vintage French wine glasses.
When: 20–25 January, 2015
Where: Battersea Park, London SW11 4NJ
Web: www.decorativefair.com

PHOTOGRAPH COURTESY OF PIPPA ROBERTS PR

Italian 1960s walnut cabinet, enamelled floor lamp and chairs from the Winter Decorative Antiques & Textiles Fair

The Woodworking Shows

Over 60 seminars presented by woodworkers, including *Fine Woodworking* contributing editor, Roland Johnson. The event also includes a 'Project Showcase', where you can bring your latest creation to be included in the show/contest and of course, there will also be a great emphasis on tools: many will be on display, to be tested and to buy. Seminars will be given throughout the week and include big names such as Veritas. Venues for January include Baltimore, New England, Indianapolis and Kansas City. See the website for full details, dates and ticket prices.
When: Until 22 March, 2015
Where: Various locations throughout the United States
Web: www.thewoodworkingshows.com

F&C UK

An open invitation for furniture makers to let us know what you're up to...

■ CHIPPENDALE INTERNATIONAL SCHOOL OF FURNITURE

The '007' table on Her Majesty's Secret Service to Shanghai

It's a table that James Bond would surely want to own, providing a handy hiding place for his Walther PPK or a vodka martini – shaken, not stirred, obviously. The fictional British spy loved his gadgets, from cyanide cigarettes to Geiger counter wristwatches, and from lipstick gas grenades to exploding alarm clocks.

The intricate handmade table has a discreet mechanism that, at the touch of a button, lowers the top of the table into a secret compartment.

The ebony *(Diospyros spp.)* and walnut *(Juglans spp.)* table was exhibited in London over the summer and is now set to feature at the world-acclaimed Design Show Shanghai in China in March, 2015. Its design is the brainchild of Shane Elliot, a graduate this year of the renowned Chippendale International School of Furniture in Scotland, one of the world's leading furniture design and restoration schools.

The Design Show Shanghai is one of the world's major exhibitions, bringing the very best of British and European design to an Asian audience.

The '007' table is based on an earlier design used in 1920s America during the prohibition era when alcohol was banned. The tables became a useful place to hide illicit alcohol. Shane has been taking commissions for other 'furniture in motion' pieces from a number of upmarket clubs and bars and private customers in the UK and believes that bespoke furniture design has no international borders. He told us that: "The '007' table is a unique talking point and can usefully function as a drinks cabinet or hiding place, whether or not you're a secret agent. China is the perfect place to now exhibit the table and showcase how traditional woodworking skills and modern thinking can produce furniture that has international appeal, not just for your eyes only!"

On top of its immersive 30-week courses, the Chippendale School also now runs one week 'taster' courses to give students an idea of the challenges and rewards of working in wood. Full details on all courses can be found on the website: www.chippendaleschool.com.

Shane Elliot's '007' table

PHOTOGRAPH COURTESY OF THE CHIPPENDALE INTERNATIONAL SCHOOL OF FURNITURE

■ BUCKS NEW UNIVERSITY

Bucks New University's annual MA Art and Design Show

A colourful array of work was recently on display at Buckinghamshire New University's annual MA Art and Design show, which took place between 4–11 December, 2014.

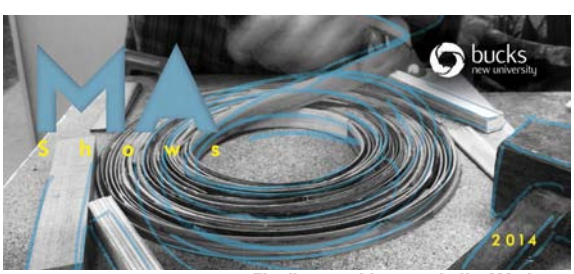
The show featured special items created by students studying MA Art and Design Practice; MA Advertising; and MA Conservation of Furniture and Decorative Arts.

The annual exhibition took place at the University, in Queen Alexandra Road, High Wycombe and celebrated the talent, creativity and success of the students who have been studying at Bucks New University for either one year full-time or two years part-time and included a selection of the students' best work created during 2014.

An MA Art and Design Open Evening took place on Tuesday 9 December, which gave visitors the opportunity to meet the course team and find out more about art and design postgraduate programmes starting in January.

Lynn Jones, Head of Academic Department – Furniture, commented on how she was looking forward to once again welcoming members of the public to Bucks New University to view the wonderful work created by the students.

The shows coincided with the fourth anniversary of the National School of Furniture (NSF), which is a partnership between the university and City of Oxford College, and this was an extra special way to also enjoy celebrating the flair, imagination and creativity of the talented students. Visitors also enjoyed taking the opportunity to take a look at the high standard of work on show. For more information, go to www.bucks.ac.uk/mashows.



The flyer used to promote the MA shows

PHOTOGRAPH COURTESY OF BUCKS NEW UNIVERSITY

If you're a member of a collective and would like to raise your profile then submit a story to teganf@thegmcgroup.com

Readers' letters

Submit your letter to us either by email – teganf@thegmcgroup – or in writing: *F&C* readers' letters, GMC Publications, 86 High Street, Lewes, East Sussex BN7 1XN. Each month one letter will be awarded the prize of a Mini Z-Saw worth £39

The magic of hand tools

Hi Derek,
Many thanks to Jim Hooker for his article 'the magic of hand tools', which was featured in *F&C* 223. It's always good to hear from others with similar views to my own.

For me, the connection with hand tools is very deep rooted. It comes from our past when we were dependant on them for survival, in a way we just aren't now, be it hunting, farming, shelter, transport, etc. The theory that humans wouldn't have survived without the invention of the simple needle, whether true or not, illustrates the point. The ability to make a bow and arrow that was reliable could have been the difference between life and death. It's therefore not hard to see why we become attached to tools that work well and feel good in our hands. They are also the essential link between us and the things we make, extending our capabilities. Most things we use deteriorate the more we use them; sometimes in a pleasing way but usually not. Woodworking tools, on the other hand, and in particular chisels, improve. I buy a lot of chisels from a well-known auction website, mostly in good condition but in need of some TLC. I spend a couple of hours cleaning up and sharpening them but that's just the start, because every time they're used, the face becomes flatter, the edge becomes keener and the whole thing becomes more familiar and trusted. I take the handles back to bare wood and soak with linseed oil, so every time they're used, the patina and feel become a little more pleasing. I've had some very pleasant surprises with handles, often they arrived barely recognisable as boxwood (*Buxus sempervirens*). When cleaned, some have a wonderful colour, pippy knots or rippled grain. The mystery of their previous life is also something to be pondered. For some it's the sound of leather on willow, for others it's lignum vitae on boxwood…

When it comes to planes, I'm an advocate of the 'buy as good as you can afford' school of thought. I've spent many hours fettling Records and Stanleys but they will only ever be used for rough work. I'm led to believe that the early ones are better but I've never used one. Lie-Nielsen, Veritas and Clifton have become the 'industry standard' for high-quality work and if looked after, will last many lifetimes. I think less than a week's pay is not an excessive price for something that gives so much back and I've never heard of anyone regretting the outlay. The best craftsman in the world is surely better with better tools.

Pete Simpson

PHOTOGRAPH BY PETE SIMPSON

Some of Pete's old tools, which he has lovingly restored

Lapses and learning

Hi Derek,
I've just finished Geoffrey Laycock's article on the psychology of incidents in *F&C* 225. I don't have or want a tablesaw but Geoffrey's comment about the correct positioning of the crown guard chimed with me because it echoes my approach to pattern routing, particularly of small components, where a close set fence mounted acrylic guard does the same job most effectively.

Imagine my surprise then, on turning to the very next editorial page, to find a big photograph showing a saw blade positioned well above the top surface of the work in the IRWIN Marples saw blade review. I don't point this out to score points because I regard *F&C* as one of the good guys of the woodworking press when it comes to both illustrating and promoting safe practices, but it does graphically illustrate the need for eternal vigilance on the part of both the woodworker and the woodworking journalist.

Geoffrey rightly emphasises the value of competent training in embedding both safe practices and a vigilant attitude to safety, but it does beg the question of how the amateur is supposed to get that vital training. Few amateurs have the time, money or inclination to attend a construction course at a local college of education, not least because they will inevitably cover much else viewed as irrelevant to the amateur in his workshop. The real world and highly imperfect answer is that we mostly pick up our approach to the use of machines from a variety of more or less reliable sources including machine instruction manuals, magazines and the internet. Men famously don't read instructions but they do read woodworking magazines and that places an extra responsibility on them to get it right. Of course, woodworking magazines can only do so much by leading by example, but how about a trawl of commercial DVDs and getting Geoffrey to review them and recommend the best?

Jim Hooker

Editor's reply

A reminder to us all, then. Eternal vigilance from now on.

Editor's round-up...

Having trouble sourcing the right tool for the job? Derek Jones sets about identifying the essential tools and equipment on offer this month

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

PHOTOGRAPH BY GMC/DEREK_JONES

Tool chests – can we ever get enough of them? I don't think so. It's always been that way and as long as there are tools, we're always going to need somewhere to put them, but in what is almost as contentious an issue as the tools themselves. I've been fitting out this chest this month in preparation for sale on 28 March, 2015 at the David Stanley auction. The project is part of a commitment to support the next generation of furniture makers. It's been a group effort and a long time coming, but we're on the vinegar strokes at last. As for the contents, well that's a different story, and I'll share that with you another time. For now though what lies in store for the next few months is a combination of products at complete odds with one another: cordless charging from Bosch on the one hand and great value 'F' clamps on the other. Basically, there's something for everyone and every pocket if you know where to look and of course we'll do our best to keep you up-to-date and pick out a few that we think are winners.

DEWALT 'Guaranteed Tough' Help for Heroes kit

Following the announcement of a new partnership with Help for Heroes, DEWALT is releasing a Help for Heroes XR Li-ion promotional kit. The brand will donate £10 from the sale of each kit to supporting wounded, injured or sick Services personnel from the British Armed Forces.

The kit includes a DCD795 compact brushless hammer drill-driver, DCF886 impact driver and two 4.0Ah batteries sold in a Help for Heroes branded TSTAK kit box with an exclusive DEWALT camouflage inlay. Both tools use brushless motor technology reducing friction, thus eliminating energy wastage and maximising the runtime and life of the tool. The 4.0Ah batteries offer users 33% longer runtime compared with a standard 3.0Ah battery and all for the same size and weight.

The batteries have a charging time of 70 minutes and feature a built-in LED state of charge indicator, letting the user know when it is time to charge the battery or swap over to a fully charged one.

From £562

Bosch GAL 1830 W Professional battery charger

With the launch of its 'Wireless Charging System', Bosch is opening up a new dimension in charging technology and providing new ways to make work with cordless tools efficient, cost and time saving. Bosch kicked off the 'Wireless Charging System' at the end of 2014 by launching the GAL 1830 W Professional battery charger and the GBA 18V 2.0 Ah MW-B Professional 18V lithium-ion battery onto the market.

Integrating charging into the workflow is very straightforward. The result is that the tools are always ready to use. It also offers very robust charging stations that no longer have contact points and are therefore insensitive to water, dust and dirt.

Bosch will begin the new era with the GAL 1830W Professional charger and the GBA 18V 2.0 Ah MW-B Professional CoolPack battery. The GAL 1830 W Professional is exceptionally compact and currently the smallest charger available on the market for 18V lithium-ion batteries. It can be mounted on workbenches, shelves or other work surfaces and serves as a flexible but secure holder for the charger battery and tool.

Bosch offers tradespeople purchasing the new system components of the 'Wireless Charging System' a 24-month ProService. Spares wear parts are also replaced for free within this time period.

Jet DC-2300 extractor

The Jet DC-2300 is a twin-bag chip and coarse dust extractor, suitable for many machines in the workshop. It can be connected to up to three smaller machines via its three 100mm connectors. The manufacturer recommends connecting it to a simple 125mm metal duct system. An alloy bodied motor drives a high efficiency impellor fan; the air flowing into the bags is via metal tubes, again creating efficient airflow. Plastic waste sacks are used which are easy to replace and held in place with quick release metal straps.

Large polyester air filters are fitted; these can be replaced with two cartridge filters which upgrade the filtration capability of the machine to be able to handle sanding machines.

The base has castors for easy mobility around the workshop. It is fitted with a 13A plug, but in some cases it may need a 16A supply. Plastic 785 × 1,200mm waste sacks are available in packs of 10. Please note that the hose is not supplied. This machine has a Performance Rating 1. Price is valid until 31 December, 2014.

Makita lithium-ion barrel handle jigsaws

Makita's latest Lithium-ion powered cordless jigsaws include, for the first time, barrel handle models. These are expected to appeal to the fine work cabinetmakers who relish the very precise control that this grip layout provides. The main handgrip position is around the slim line body of the machine, which in itself gives a very accurate balance and control. Added to this is the forward top pommel that is directly above the blade which makes two-handed control of these jigsaws comfortable, safe and very precise.

The new Makita DJV181 and DJV141 models are available with this barrel handle style at 18V and 14.4V respectively. These are traditional-style jigsaws with ergonomic top handle and soft grip for comfort and control, plus trigger switch with lock on button. For safety, after the trigger is released the machine will lock automatically if the lock-on button is not pressed within 10 seconds. This safety feature prevents any possibility of the jigsaw operating accidentally should it be placed into a tool box without care.

This new collection of cordless jigsaws feature variable speed control by dial, twin LED job lights and blower to clear dust away from the blade, tool-less blade change and a lever to select the three orbital blade or straight cutting modes. The rigid aluminium base bevels 0-45° both left and right. These modern, high performance jigsaws weigh just 2.5kg for comfortable and accurate operations.

Stanley FatMax Autolock tapes

The new FatMax Autolock tape combines versatility with professional quality to give a simple solution to an everyday task on site. With a patented reverse lock mechanism for greater control and increased blade life, coupled with a 3.33m blade standout for increased reach, measuring is made easy.

The new tape also includes two additional hooks, one magnetic and one XL, for improved efficiency and both can be stored into the tape itself. The XL hook enables the user to hook the tape side-on to the structure, meaning no need to twist the tape and thus reduces inaccurate measurements.

The new tapes are available in 5m or 8m lengths, both metric and metric/imperial and come with a Mylar coated blade. With blade armour on the first 80mm making them 10 times more resistant to abrasion than traditional lacquered blades. No matter what jobs you throw at it, a FatMax Autolock tape is a real tool belt must-have.

New MASCOT footwear range

MASCOT has launched four models in a newly developed series of safety footwear that comes as close to the comfort of athletic shoes as possible. The focus has been to unite 100% safety with flexible and comfortable footwear. The range is comprised of safety boots, safety sandals and two styles of safety shoes, all of which have the same safety components and fit.

The toe cap is brand new and made of a composite material that is entirely metal-free. By virtue of the textile midsole and plastic eyelets, the shoes, sandals and boots are completely free of metal.

Shock absorption is assured with the help of a dual effect; both the sole material and the newly developed insole of EVA are shock absorbing. The result is that there is cushioning in both the heel and toe. According to the latest industrial statistics, strains and sprains are the most common type of injury. All of MASCOT's new footwear has been tested for and has passed this safety standard.

This new range of safety footwear from MASCOT is found both in safety class S3 – a boot and a shoe – and S1P, a shoe and a safety sandal with hook-and-loop band fastening. All are equipped with a durable sole of PU/PU that won't leave scuff marks.

Liberon wood care products

Liberon, a leading manufacturer of wood care products, has recently launched three new products to extend its wood care protection range. Hard wax oil is a unique water-based blend of high quality oils and waxes for a superior finish on interior wooden floors and furniture. This product ensures surfaces are waterproof and stain resistant while maintaining the natural look of the wood. With its EN71 approval it is also safe for use on toys. We've used this finish on a couple of projects in the workshop so far and like all water-based products it tends to raise the grain on the first coat. Not a problem if you're ready for it.

The quick-drying tung oil features new technology, which brings a four-hour drying time to tung oil applications for both interior and exterior wood. Ideal for use on kitchen worktops, tables and chopping boards, it is resistant to water, alcohol and food acids and is also safe for toys.

Exterior wood protector is a new clear finish suitable for both vertical and horizontal wood protecting it from weathering. This product offers long lasting protection with the added benefit of being water and UV resistant, which makes it suitable for pergolas, balustrades, fences, garden furniture and summer houses. The clear treatment will not alter the natural colour of the wood and will form a protective barrier against weathering, sunlight and extreme temperatures of -10°C to +35°C.

Peel-and-stick wood veneer

Today, one of the easiest wood veneer application methods is performed by using pressure-sensitive adhesive (PSA) or peel-and-stick backing. Especially useful for kitchen and bathroom cabinets, PSA completely eliminates the hassle of evenly applying glue to the veneer and/or the substrate.

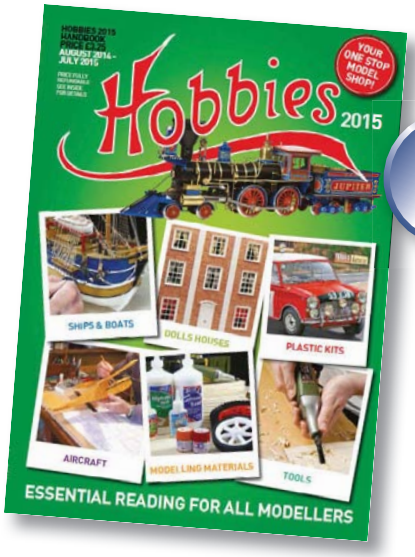
Recently, Oakwood Veneer Company has begun providing customers with the option of special ordering any one of their wide selection of wood veneer species to a PSA backing. The company has over 300 veneer species, many of which can be ordered as a PSA veneer with only a couple of days of waiting before shipment.

Oakwood expects this new option will have appeal for higher-end installers, who until now, would have been unable to find luxury veneer species, such as figured eucalyptus or birds-eye maple *(Acer saccharum)*, with a peel-and-stick backing. For more information on sizes and prices, see the website.

£66

Trend kitchen fitter's pack

This new three-piece kitchen fitter's router cutter pack is a must-have for all kitchen fitters. It contains three ½in shank workshop cutters, which are tungsten carbide tipped for use on abrasive timbers and man-made boards. The cutters feature two flutes for a clean finish and are supplied in a heavy-duty storage case.



£3.25

Hobbies 2015 handbook

Since 1895, Hobbies have been supplying model makers and enthusiasts with a wide range of quality model kits, accessories, tools, materials, components and plans. The company believe that model making is not just a pastime, but also an experience to share with friends, siblings, children and grandchildren. Hobbies stock a diverse range of hobby kits plans and accessories, from dolls' houses and model boat kits to remote control planes. Whatever your age or experience level, you'll be able to find something to pique your interest at Hobbies.

MINI TEST: Bahco 420 6mm 'F' clamp

Bahco may not be the first name that springs to mind if you are in the market for 'F' clamps, especially for those with larger capacity and reach. The Bahco 420 is available in sizes from 100mm to 1,500mm capacity with that largest size having jaws reaching 120mm; the 400mm version is available with 175mm jaws. This 600mm clamp has a reach of 120mm or close to 125mm with substantial section jaws of malleable cast iron fitted to a galvanised steel rail. In use, jaw adjustment is smooth and the high-quality clamping screw is fitted with a rounded square-section solid plastic handle. To avoid distortion, a tommy bar hole in the handle should probably be reserved for releasing the clamp rather than adding extra clamping pressure and in any case the size and shape of handle allows plenty of clamping force for any job. One useful feature is a cast button on the outside of the fixed jaw so this end will sit level on a surface although it will not stand unaided. As with almost all 'F' clamps, the jaws are not quite at 90° to the rail so this cannot be used as a guide to ensure clamping surfaces are parallel. Shop around as prices vary, the 600mm one here cost £29.50 and the same supplier had the 1,000mm version at only £34, amazing value for money. F&C

From £29.50

Contacts

Bahco 420 6mm 'F' clamp
Contact: Bahco
Tel: 01709 731 731
Web: www.bahco.com

Bosch GAL 1830 W Professional battery charger
Contact: Bosch
Tel: 03447 360 109
Web: www.bosch-professional.com

DEWALT's 'Guaranteed Tough' Help for Heroes kit
Contact: DEWALT
Web: www.dewalt.co.uk

Hobbies 2015 handbook
Contact: Hobbies
Tel: 01508 549 330
Web: www.alwayshobbies.com

Jet DC-2300 extractor
Contact: BriMarc Tools & Machinery
Tel: 03332 406 967
Web: www.brimarc.com

Liberon wood care products
Contact: Liberon
Tel: 01797 367 555
Web: www.liberon.co.uk

Makita lithium-ion barrel handle jigsaw
Contact: Makita
Tel: 01908 211 678
Web: www.makitauk.com

New MASCOT footwear range
Contact: MASCOT
Tel: +45 8724 4820
Web: www.mascot.dk

Peel-and-stick wood veneer
Contact: Oakwood Veneer Company
Tel: (001) 800 426 6018
Web: www.oakwoodveneer.com

Stanley FatMax Autolock tapes
Contact: Stanley
Web: www.stanleytools.co.uk

Trend kitchen fitter's pack
Contact: Trend
Tel: 01923 249 911
Web: www.trend-uk.com

PHOTOGRAPHS BY ALEXANDER MAHMOUD

Swedish sustainability

We find out more about this Swedish furniture company and their sustainable practice

Lith Lith Lundin is a furniture company based in the small village of Torsåker in central Sweden. Their business idea is a reaction to the way the industry constantly puts forward new colours and trends in order for people to strive to buy new products and 'have the latest thing'. They offer sustainable alternatives that are not driven by trends or seasonality, and manufacture timeless furniture that will develop its own history – furniture that can be passed on down the generations.

Background

Martin Lith tells us that both himself, Erik and Hannes all had their individual ideas of what they wanted to do, as he explains: "I was going be a hotel manager; Erik had a career in soccer and Hannes was studying science, but through some random events, we all changed paths; paths that would lead us to where we are now." Erik began to study traditional handicrafts and went on to pursue design at Grimslöv folkhögskola, whereas Hannes studied cabinetmaking for two years in Gothenburg while Martin worked as a salesman for hotels on the west coast of Sweden. It was not until 2009 that their paths crossed for the first time. At this point, Erik and Hannes had both managed to get in to the Carl Malmsten Furniture Studies in Stockholm, Sweden. This is a highly renowned school for furniture design and furniture making with wood as its primary material.

As the trio tell us, Carl Malmsten Furniture Studies is a school "based on learning by doing," with a focus on craftsmanship and the cultural heritage as a source of inspiration and knowledge.

Erik applied and got onto the programme for furniture design and Hannes started on the furniture making course, and it was during one of the many classes that were included in both these programmes that they started to spend time together. As they explain: "Carl Malmstens is a rather small school with about 70 students and due to this small size, you quickly become a tight-knit group of people and you really get to know everyone." Erik and Hannes, among a lot of the other students, spent the majority of their waking time in school, sometimes playing table tennis or having a party, but most of the time working. One day in the school cafeteria, they were discussing what would happen after they had completed their studies and what they would do career-wise. They didn't want to contribute to the growing trends in design that were promoting "the colour of the season" or the lastest trend, as it didn't seem like the right thing to do. "This is where the first ideas of a thesis project started," the trio explain.

At the same time Martin Lith, Erik's brother, had quit his job as a sales representative at a Swedish hotel chain and started working as a lumberjack at the family farm in Torsåker and it didn't take long before Martin and Erik were asked to take over the farm and carry on the family legacy. "At the same time, Hannes and Martin had also got to know each other and the three of us had a lot of fun together," they tell us.

Back at the furniture school, Erik and Hannes had started their thesis project, the title of which was originally going to focus on carbon-dioxide neutral furniture. However, as they started reasearching, a whole new idea opened up, an idea about sustainable furniture production. "At the beginning, we didn't have any idea of how comprehensive the project was going to be and we were lucky to have such understanding, but also trusting, mentors," they explain. Over the upcoming 10 weeks, Erik, Hannes and in some cases also Martin, worked around the clock to finish the work in time for the annual thesis project exhibition. The result of the first part of the project became a flow chart, which allowed the user to put in a 50km radius and test if it is suitable for a sustainable production. In the second part, they tested their flow chart on Torsåker where Erik and Martin had just started taking over their family farm; this resulted in a palette of materials and three products: 'Glimm' 'Seven' and 'Dome'.

'Dome', a dainty table for solitary reflection, or a conversation by the fireplace or on the veranda. 'Dome' is an inquisitive table that stands tall and wants to participate. The asymmetric shape of the table top and the light weight of the piece creates opportunities for the user to easily turn or move the table to suit various occasions. Works just as well in the hall with a lamp on top as it does next to a sofa or armchair, holding a bowl of crisps. Made in pine, leather and available in natural or black (carbon-black)

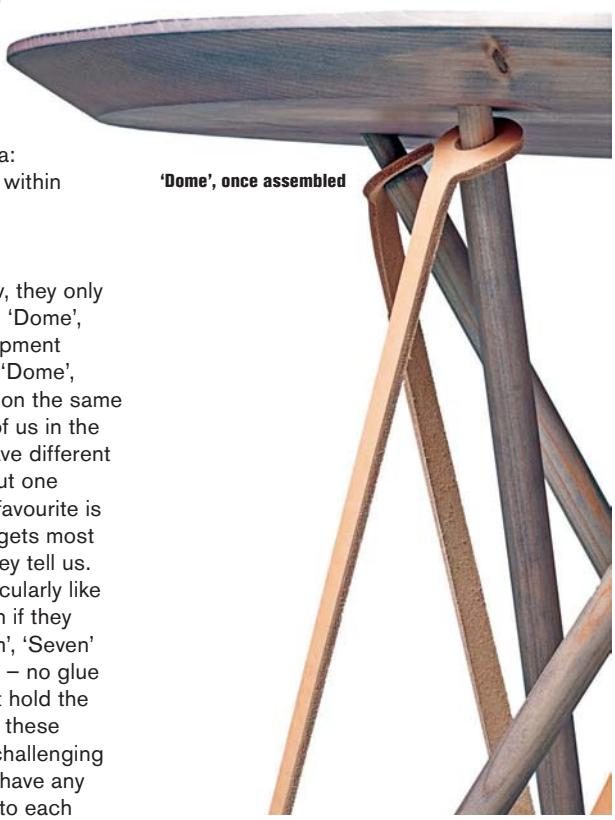
The thesis ended up being rewarded with a scholarship from builder John Mattson's memory foundation and all of a sudden they had a business idea: sustainable furniture production within a 50km radius.

Favourite piece

As the company is still fairly new, they only have four different pieces: 'Will', 'Dome', 'Glimm' and 'Seven'. The development of 'Will' is a story in itself, while 'Dome', 'Glimm' and 'Seven' are all built on the same basic idea. "As there are three of us in the company and because we all have different answers, it's too hard to point out one favourite piece, but I guess our favourite is the simple but refined look that gets most of its inspiration from nature," they tell us.

The trio explain that they particularly like the simplicity of the pieces, even if they may look a little complex. 'Glimm', 'Seven' and 'Dome' are pure and simple – no glue is used – just leather straps that hold the construction together. However, these designs are still advanced and challenging in the way that none of the legs have any wooden frame to connect them to each other. "This design needs and values high-quality materials," they explain. "Because of its simple shape, the materials become an important part of the overall appearance of the piece and the quality of the leather is extremely important, as it needs to be able to withstand the force of someone sitting on the stool, and it needs to be durable."

As they continue: "'Will' might be even



'Dome', once assembled

more simple and a lot more advanced at the same time. We handle and produce the parts in the same way every time but the result is still unique in the end." So how does this work? Well, the trio tell us that they use fresh wood when building 'Will' and when wood dries, it shrinks and bends. By drying and putting the chair together in different steps, they can exploit the shrinkage, using it to frame the construction and at the same time, the overall result is unique due to the natural movement of the wood.

Design ethos

The company's concept is to source and process all their resources from within a 50km radius from their workshop. "This is to produce sustainable furniture where we have control over all steps in the process," they explain. "If you claim to produce sustainable furniture, then you have to be sure that everything is sustainable. You could use organically grown and harvested wood, but how about the chemicals in your stain – how and by whom are they produced? With this 50km radius we are able to check everything, and work with transparency in our production."

Working within this 50km radius provides them with creative challenges, something to take a stand towards, to accept and develop: "The fact that we only have access to a limited selection of raw materials within our 50km radius encourages us to grow and produce our own. It is this 50km radius that dictates the palette of materials that provides the premise for our design. We want to contribute towards a change in attitude in the consumer, towards increased awareness, by showing that sustainable production is possible based on the knowledge and natural resources available within our immediate surroundings. Through our project we also want to demonstrate an alternative to today's furniture industry; an alternative that makes the consumer aware, engaged and inquisitive. In this manner, we want to justify our role as a production enterprise in a world already overflowing with stuff. We get a lot of our inspiration from our materials and ultimately from nature. Either we try to develop a new material within our 50km radius or we start out with an old handicraft technique that we try to apply on a new material, or take a modern stance and see what possibilities that could give us."

Sustainable materials

All the materials they work with are 100% renewable, biodegradable and free of chemicals. They also work to promote regrowth and biodiversity within their 50km range. They plant and use pine (*Pinus spp.*), birch (*Betula pendula*) and spruce (*Picea abies*). They also use many other natural materials, such as linseed oil made from home-grown flax seeds, beeswax sourced from their own hives and pigments made from beetroot and red cabbage.

Influences and inspirations

They told us that their self-imposed geographical range means that they often

'Glimm', an interpretation of the classic hunting stool, now for contemporary spaces, where the hunting of prey has been replaced by social games and conversations. When seated on 'Glimm' you project strength and calm through the straight, relaxed and active sitting position generated by the design of the stool. 'Glimm' is a perfect example of how simple components create a complex pattern with a floating appearance and unexpected strength. 'Glimm' is a stool for use with a high desk or bar, or for sitting on when peeling potatoes over the sink. Made in birch and leather and available in either natural or black (carbon-black)

Air-drying their own timber

Leather and leg detailing on 'Glimm'

Harvesting their own beeswax

look to old techniques for inspiration, then try to update or upgrade them. An example of this is the technique they used for making the 'Will' chair. "The green woodworking technique used in 'Will' is probably one of the oldest techniques on how to make furniture: take a piece of fresh wood, drill holes and put dry sticks in them. Another example is the making of carbon black; we found the blueprints for that in a book from 1870 and then just modernised it."

The form and technique used for 'Dome', 'Seven' and 'Glimm' come from tensegrity – tensional integrity – which is often used when building masts and domes.

As the company only work within their limited geographical area, their materials therefore become very important to them, as they explain: "We want to make the most of everything we have within our radius that is renewable. As we live in the middle of Sweden, wood is the natural choice for the main material and we try to maximise the way in which we use it; ensuring to get the most out of this natural resource." Together with Sara Olson, a student at the university in Gävle, the trio have been working with Bois Durci, where they have been experimenting with taking wood sawdust and mixing it with blood from cattle to make a castable material. As both sawdust and blood are seen as disposable byproducts, they think this is a very interesting material and one they will certainly focus on in the future.

The three furniture makers also tell us that in their work, to ensure that all materials used to make their furniture comes from within their chosen radius, they have developed a system for tracing their furniture: "Every piece of furniture comes branded with a unique number. On our website, you can trace all materials in your piece back to where they come from. For example, you can see where the cattle for the leather has been bred, where it's been slaughtered, tanned and stamped. You can see from which part of the wood the pine root for the black pigment has been

'Will' chair. When wood dries two things happens: it shrinks and it bends. Lith Lith Lundin want to use these properties to both fabricate and design a chair. Depending on where the tree has grown and what it has been exposed to it will act different when dried. Because of this, every chair has a unique appearance and they even look as if they were produced in the exact same way. Usually wood is dried slowly to avoid changes in shape. The wood is dried after the chair is assembled and not before as common and they are using green woodworking techniques, where the fresh wood parts shrinks around the dry tenon to frame the construction. Made in birch and available in either natural or black (carbon-black)

The range of components, which make up 'Seven'

collected; where the hen that gives us the eggs for the colour lives, and so on."

Approach to design

They begin a design by looking at different materials and techniques, rather than starting with an empty sketchbook. Their approach to design is remarkably open: "Our mission is to build furniture, but we're not entirely locked into this, so what's to come out of a project is sometimes hard to see at the start."

Their design process is also based on experiment and research: "We conduct countless tests of form and function. We prefer to work with models rather than computers, as this provides a better understanding of proportions, materials and their interactions. However, this does not prevent us from also using 3D modelling in CAD programs where appropriate."

Future projects

The future looks promising for this young company as their furniture starts to go on the market: "Right now we are in a phase where we can start to produce and sell 'Glimm', 'Seven' and 'Dome', which is very exciting. Finally we will be able to see how the market responds to our products. We just came back from London Design Festival and we are now getting back to reality and everyday life. Our goal for the near future is to start selling our furniture in stores around the world, so if a retailer is reading this and is interested in selling sustainable design, then get in touch!" We hope to see more of their work on sale soon.

The trio have also been selected to take part in various exhibitions in prestigious locations, including Milan, New York and Los Angeles, so watch this space! F&C

Contact details

Email: info@lithlithlundin.se
Web: www.lithlithlundin.se

'Seven' stool. Their vision was to create a piece of furniture for everyday use, but aspiring to higher thoughts and goals. Some of the guiding principles involved were the ability to dismantle the product easily, simple components creating a greater whole and a desire to create a relationship between furniture and user through the execution of these steps. 'Seven' is a stool for sitting around a table, or tying your shoelaces in the hall, or is it a bedside table? At the same time, it is a stool to sit on to openly demonstrate your commitment to a sustainable society. Made in pine and leather and available in natural and black (carbon-black). The red colour is currently under development

Maker's maker

It is so hard to pinpoint just one person and since there are three of us, the biggest influence is definitely coming from each other. But if I were to choose someone from the outside, it would probably be our friend/mentor/teacher and for a time also our flatmate Rasmus Malbert. He is always positive and open to new ideas and solutions. He has the ability to get you to make the hard decisions and force you in the right direction without you knowing it. He's a true inspiration both in a work situation and in real life! F&C

'Klavier', a book shelf which creates a playful dimension when left empty

PHOTOGRAPH COURTESY OF PULP LABS. ALL OTHER PHOTOGRAPHS COURTESY OF RASMUS MALBERT

Rasmus Malbert

'Estrad', Rasmus' 'journeyman's letter' piece of furniture, in rock maple veneer and solid wood, rattan, mahogany veneer, with brass and dyed-through birch marquetry on the tambour

'Modern Times Milano 2011', consisting of 'Black box', 'Malmön' table, 'Trestle' stool and 'A piece of forest' lighting system

The January Furniture Show

NEC 13-15 JANUARY 2015

Register FREE Online

Start 2015 in style

At the January Furniture Show

January at the NEC has been an essential event in the furniture industry calendar for 25 years.

All the big names agree, and the new look, new format show is a sell-out.

With over 350 exhibitors, including most of the UK's major Furniture brands - you will find all the latest, hottest trends in furniture, under one roof.

16,000 complimentary parking spaces • the heart of the motorway network • Birmingham International airport • 25% discount on Virgin rail exclusive to NEC visitors

Tues13-Thurs15 Jan 2015

PUT THE DATES IN YOUR DIARY TODAY!

Register for your invitation and show updates at:

www.januaryfurnitureshow.com

Exhibitors include: Parker Knoll • Tetrad • Duresta • ROM • G Plan • Baker • Ercol • Henderson Russell • Skovby • Spirit • Winsor • Greenapple Design • The Libra Company • SITS • Gascoigne Designs • GLPC • Artistic • Wade • Paulus & Brown

H&P POLISHING LIMITED

Make your metal stand out

Metal polishing and electroplating services

Paint, Nickel & Chrome Strip

Vapour De-greasing

Electro-cleaning

Metal Polishing

Electroplating

Try us absolutely FREE
No Obligation !

Trial samples collected and delivered to you F.O.C. along with a free quotation **Call Now !**

When you need metal polishing services, come to H&P Polishing UK Limited in Birmingham. We have a wide range of polishing and cleaning services, including paint stripping, electro-cleaning and electroplating. Just contact us today to find out more.

Address: **H&P Polishing UK Limited, Tyburn Road, Birmingham, B24 8 NQ**
Phone: **0121 327 4165** Email: **hppolishing@hotmail.com**

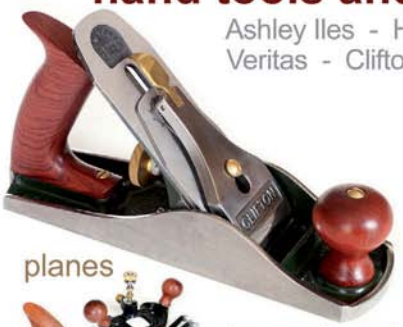
www.hppolishing.co.uk

hand tools and wood chisels specialist

Ashley Iles - Henry Taylor - Robert Sorby - Joseph Marples
Veritas - Clifton - Thomas Flinn - Flexcut - Ice Bear...

All items in stock, ready for dispatch..
*unless marked otherwise
all prices inclusive of VAT

Tool Nut .co.uk



planes

saw horses

sharpening stones and tools

chisels

drilling

measuring and marking

Order online today at
www.toolnut.co.uk
or call to order on 01424 224269

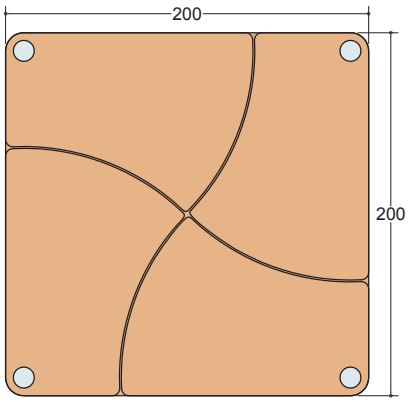
Quatrefoil box

Robert Ingham shows us how he made this complex box, which is influenced by the geometrical construction of an octagon

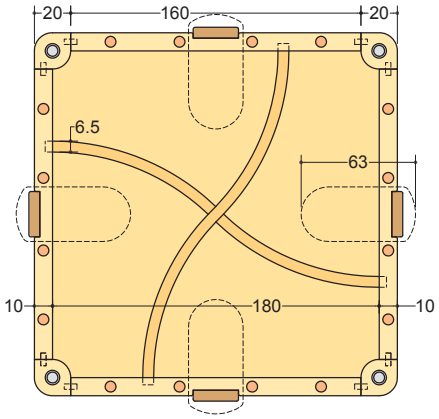
PHOTOGRAPHS BY ROBERT INGHAM

The inspiration for this box came from observing the pattern created by the geometrical drawing of an octagon. A square is drawn and the points of the eight sides are established by setting compasses from the corners to the centre, which is where the two diagonals cross. Curves can then be drawn to establish the sides and corners and these were the inspiration for the shape and movement of the four lids.

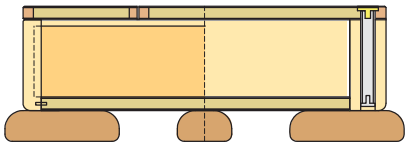
In detail



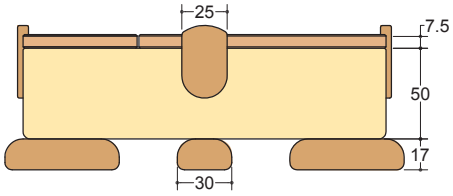
Plan of Top
Scale 1 in 4



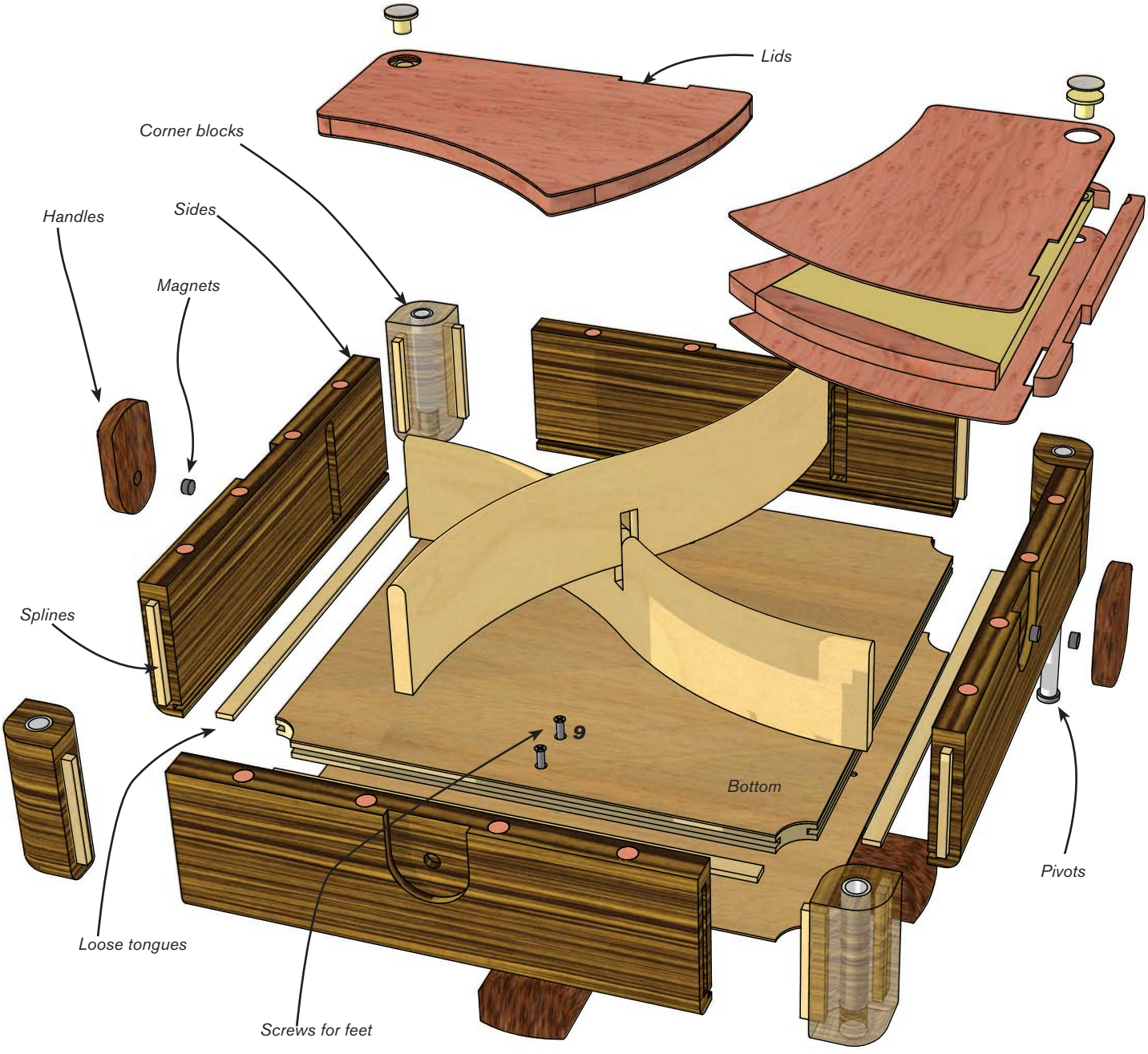
Plan of Inside
Scale 1 in 4

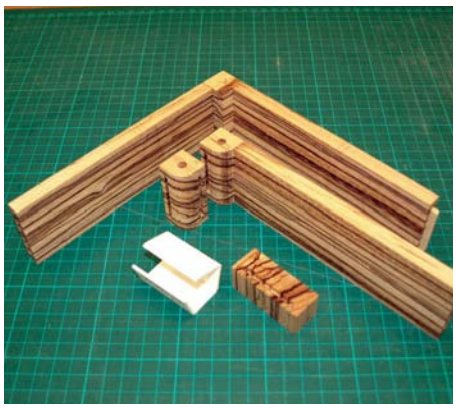


Split Section



Elevation





1 The horizontal grain direction ensures the long term stability of the construction

2 Dimensioning the pieces using the sliding table in conjunction with the rip fence

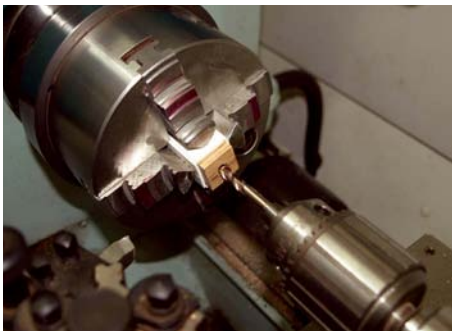
3 The corner blocks are joined to the sides with loose tongues

The box

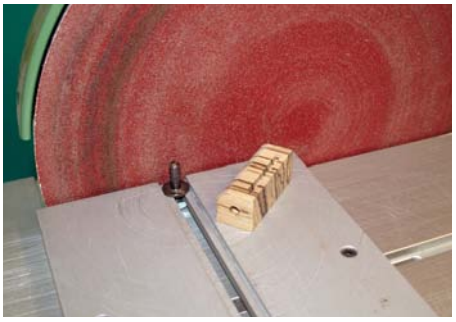
Because geometry is a precise way to construct 2D forms, the way the box was going to be made had to reflect the accuracy it required. The box consisted of four strips that were connected in the corners with blocks that both formed the means of connection and carried the holes for the lid pivots. The horizontal grain direction ensures the long-term stability of the construction. The corner blocks were sawn from a prepared piece that was the same thickness as the final dimension of the square cross section. These were cut on my dimension saw using the sliding table in conjunction with the rip fence, which was lowered to a horizontal position. With consecutive cuts I was able to use the face and end grain in the composition of the pattern that was eventually created by the lids.

The corner blocks were joined to the sides with loose tongues. The grooves were cut by dropping them down against the fence onto a cutter in my router table. The length of the cut was controlled with adjustable stops on the fence. The fence ensured accurate alignment of the outer faces of the sides and corner blocks. The adjustable stops provided safe control of the forward and backward feed, but the precise fit of the loose tongues had to be marked with a cutting gauge and trimmed with a chisel.

The pivot holes in the corner blocks were drilled in stages. The first diameter of 6mm was drilled with the block held in the four-jaw chuck of my engineering lathe. I made a case from 2mm thick flexible plastic, which wrapped around the block to protect the sides from the compression of the jaws of the chuck. The hole was drilled with a 6mm spiral flute router cutter. This hole was then used to round off the inside corner of the block on my disc sander. I have a carrier block that is guided by a groove in the sanding table. An adjustable pin projects upwards from the block, which can be moved towards or away from the sanding disc. The corner block was dropped onto the pin and rotated against the sanding disc. The 10mm radius of the curve was half the thickness of the block. I could have produced the curve with a router cutter, but the risk of break-out at the end of the cut encouraged me to use the sander.



4 An engineering lathe is used to drill the pivot holes in the corner blocks



5 The corner block, once shaped

Bottoms

The bottom of the box, which was eventually glued into the construction to add strength and stability, was made of 6mm-thick MDF veneered with khaya. These were accurately cut to the inner dimensions of the box on the sliding table of my dimension saw. The quarter-round corners were cut with a 20mm diameter router cutter on my milling machine. Location grooves in the edges of the bottoms and inside faces of the sides were cut on my router table. A 2 × 6mm spline, made from jelutong *(Dyera costulata)*, was used for the location. I chose the timber for its clean straight grain and stability.

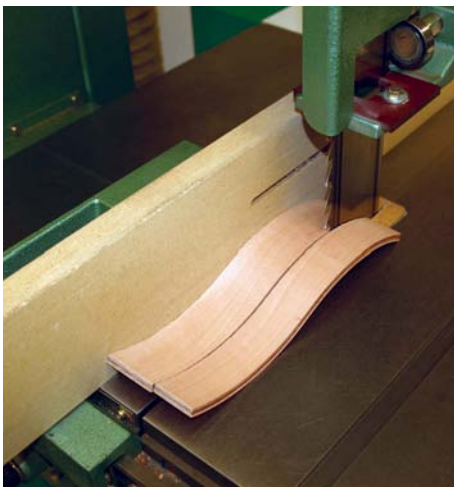
The grooves in the edges of the bottom were cut with a pressure block fixed to the router table. It is designed to provide lateral pressure which enables a forward and backward feed against the fence, unlike a feather board which can only be fed in one direction. The pressure block was then removed to use the fence setting for the grooves on the inside faces of the box sides.

6 The bottom of the box is made from 6mm-thick MDF veneered with khaya

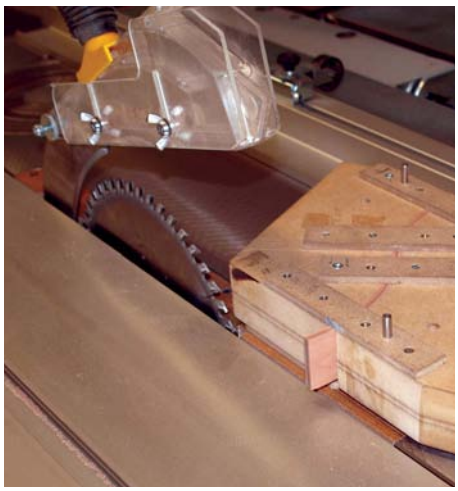
7 The bottoms, once the quarter-round corners had been completed

8 The pressure block was then removed to use the fence setting for the grooves on the inside faces of the box sides

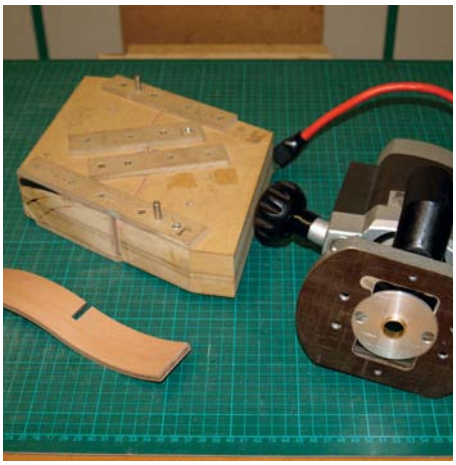
9 I made a two-part mould to press the laminations



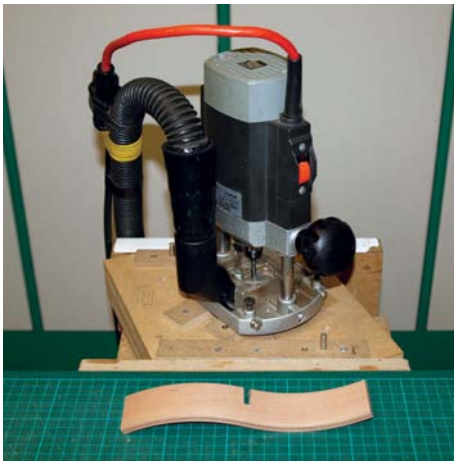
10 I sawed the strip 0.5mm overwidth on my bandsaw



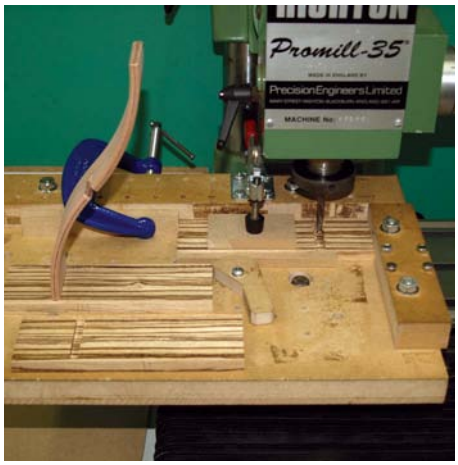
11 I made a jig to dimension the partitions to length



12 The router with the guidebush in place



13 The partition component in place



14 The milling machine allowed me to achieve precision

Laminated partitions

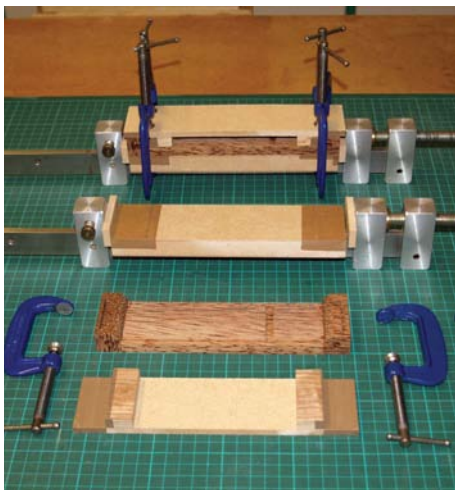
The laminated partitions follow the curved lines created by the swivelling lids. From the point of view of production efficiency I made two boxes, as there was a lot of time spent setting up and making jigs. The laminating process was carried out at the start of making the boxes, so that during the long curing time of the epoxy resin I could work on the preparation of the timber for the box sides and corner blocks and cut the loose tongue slots. I chose epoxy resin for three reasons. Firstly, the longer open assembly time when the glue is being applied, which I did with a 75mm foam tube roller; secondly, the fact that there is no water in the mix. The resin and curing agent combine chemically so that when the glue has set there is no further moisture to dry out; and finally, although the glue is very strong it is not hard enough to damage cutting edges such as planer blades during further processes. I made a two-part mould to press the laminations. The curves of the partitions were too tight to be formed with a single mould and a bag press. The two-part mould with the boxed sides ensured that the laminations aligned when the pressure was applied. This was applied under the platen of my veneer press, but could have been carried with G-clamps. To ensure that the combined thickness of the partitions were compatible with the router cutter that was used to cut the grooves on the inside faces of the box, I used four layers of 1.5mm construction veneer with a fifth layer of 12mm veneer in the middle. After the glue had cured I planed a reference edge on my surface planer and sawed the strip 12mm over width on my bandsaw. This was then dimensioned to the finished width once again on the planer.

I made a jig to dimension the partitions to length. This jig was also used to cut the halving joint slots. It consists of two MDF blocks with the profile of the partitions machined into the inside faces. Strips of MDF are glued and screwed onto the surfaces to align the blocks and hold them together. Two stainless steel pegs are also inserted into precisely drilled holes to add further accurate alignment. With the partition component in place the router with a guidebush was traversed with progressive depths of cut between the two centre strips until the depth was reached, which in turn was controlled with the depth stop.

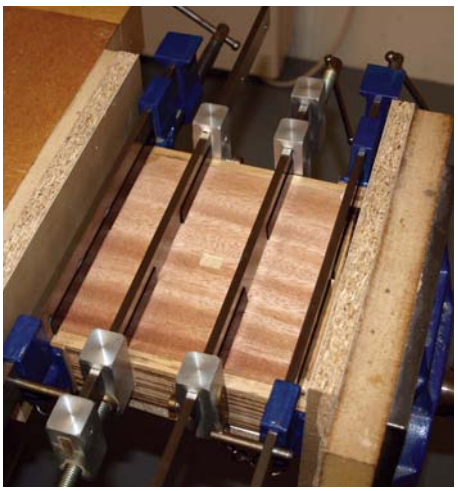
The grooves or housings into which the partitions were located were cut on my milling machine. The downward cut, spiral flute router cutter was chosen to match the combined thickness of five laminations of the partitions. With this machine I was able to hold the sides firmly in place with a toggle and cam clamp fixed to the baseplate. The position of the groove and the depth of cut could be precisely set, which enabled me to cut all four with predictable accuracy.

Assembling the box

The corner blocks were fixed to two of the sides. The end grain and face grain of the blocks were positioned to complement that of the lids as part of the composition of the design. Although the loose tongues connected the components accurately, I needed to make sure that they remained aligned when the clamp pressure was applied. Alignment of these components was critical, so I made a carrier plate with a groove on the underside that fitted onto the sash clamp bar. Blocks were fixed with double-sided tape to the clamp jaws that



15 Gluing corner blocks onto sides with a cramping jig

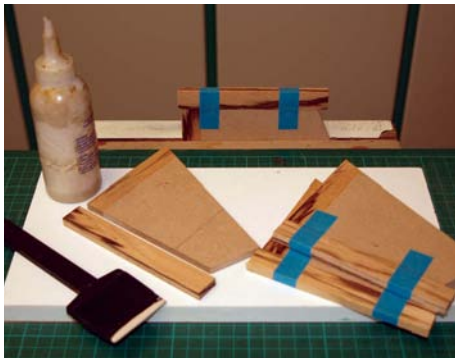


16 **Box being glued up with bench vice and sash cramps**

were the same depth as the surface area of contact with the ends of the box sides. An additional plate was placed on top of the assembled components, which was held in place with G-clamps. Finally, parcel tape was coated onto surfaces that would come into contact with squeeze-out of glue before a dry run was carried out. I used Titebond Three to glue the components together. The sash clamps are an example of equipment I have made myself. Because I make a range of small items, of which boxes are a good example, I made small sash clamps to match the scale of handling and control. I rounded the top edge of the laminated partitions to match the half-round curve of the housing grooves that were cut with the spiral router cutter on the milling machine. The surfaces were then sanded as were the inside surfaces of the corner blocks and sides, before the box was glued and assembled. This time I used a vice and sash clamps to distribute the pressure with anticipated control. Parcel taped cauls were positioned between the vice jaws and the box and sash clamps, with blocks held with double-sided tape applied pressure in the corresponding direction. The bottom of the box, which was located with splines, played a big part in making sure that the assembly was square.

Lids

17 **The shape was cut with a ball-race router cutter on my router table**



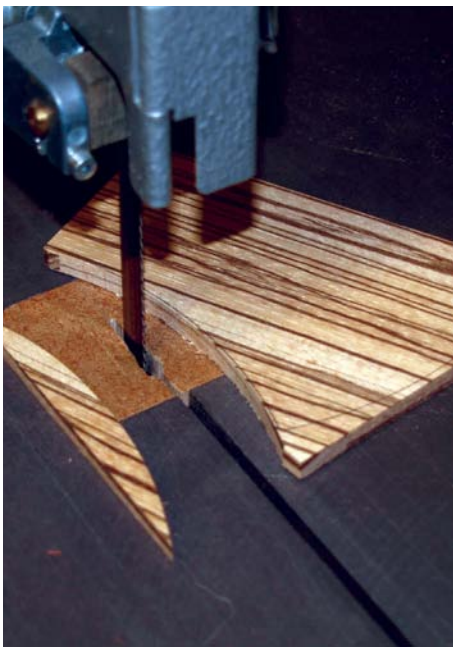
18 **The glue was applied to the edge of the MDF with a comb spreader**

The visual rotating pattern of the lids was achieved with the use of four consecutive leaves of veneer. For stability the same format was carried out on the undersides. The veneer was laid onto MDF edged with solid lippings. I made an MDF template with which to rout the lid blanks. This was held in place with a couple of panel pins and the shape was cut with a ball-race router cutter on my router table. Lippings that were wide enough to take the shape of the curves on the inside edges were glued on first. To make the planing to thickness easier I glued one lipping at a time so that the grain was compatible with the direction of the plane stroke. Each lipping was held in place with masking tape after the glue had been applied. With a 15 minute pressure time of the Titebond, I did not have to wait long before planing to thickness. The glue was applied to the edge of the MDF with a comb spreader. Once the lippings had been planed level with the faces of the lids, the veneer was glued on and pressure applied with cauls held in a vice.

The excess material of the curves was removed on the bandsaw and sanded to

19 **Veneering he lids with small cauls and pressure applied in a bench vice**

the final shape on my disc sander; this was carried out using a pivot pin on the sliding block. I predrilled the pivot hole in the lid on my milling machine. A clearance gap of 12mm between the curved edges ensures the long-term smooth movements of the lids. This was further emphasised with a chamfer. The same setting was used to drill the recess that would accept the pivot head cap with a counterbore cutter. The cap would be glued in place after the lacquer had been applied.



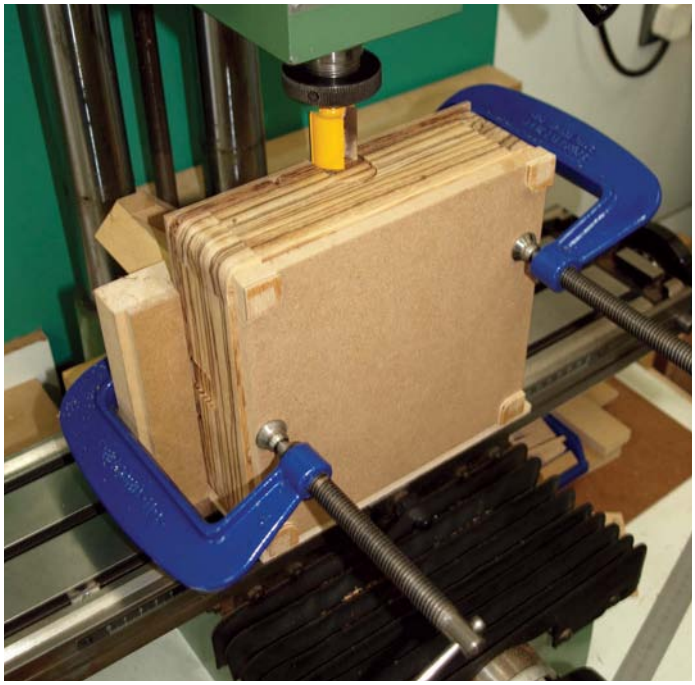
20 The inner curve sawn on the bandsaw

21 Outer curve formed on disc sander using a pivot pin

22 The cap would be glued in place after the lacquer had been applied

Handles

Although the lids aligned with the sides of the box when they were closed I decided to include an opening handle which was fitted into a slot. The handle projected below the lid and was recessed into the side. The function and aesthetics were two fold. The projection above enabled the lid to be opened and the projection below acted as a stop. Aesthetically, it drew one's eye to the handle and showed how it could be opened. It also contained a small rare earth magnet that held the lid in place. The 4mm diameter magnet was glued into a hole in the centre of the rounded shape. This hole was drilled precisely on the milling machine and then used as the centre from which the curve was formed on the disc sander. The width and radius of the handle was determined by the 25mm diameter router cutter that produced the recess and slot into which it was fixed. All four lids were placed onto temporary pivots in the corner blocks. This assembly was then held in place against a vertical holding plate that was fixed down onto the milling machine table with screws and nuts held in the 'T'-sectioned groove. The cutter was centred into the position of the slot and traversed forward and back to create both the slot in the edge of the lid and the side of the box. The depth of 3mm was achieved with six progressive 0.5mm cuts until the depth was reached. This reduced the strain on the vertical holding plate screws as the assembly was traversed. I moved the cutter by 12mm on either side of the first cut to provide clearance for the handle when the lid was opened and closed. While the milling machine was set up for this process I changed the cutter to drill the holes for the receiver magnets. With the lids in place the handles were inserted into the receiver slots and the position was marked with a line from the upper surface. The top edge was shaped with a curve and the edges were rounded with a 3mm radius rounding over cutter. The handles were then glued into the slot in the lid being held in place and clamped in a bench vice.



23 I moved the cutter by .3mm on either side of the first cut to provide clearance for the handle when the lid was opened and closed

24 The handles were then glued into the slot in the lid being held in place and cramped in a bench vice

Pivot holes

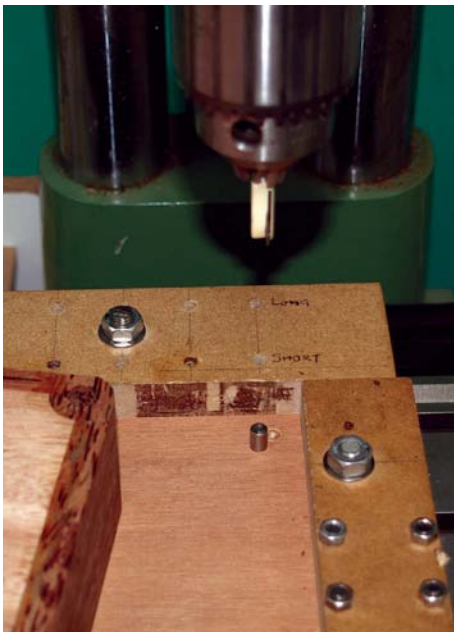
The stainless steel pivots that project from the undersides of the lids rotate in an epoxy resin bearing. The 6mm diameter holes that had been drilled previously were increased to 8mm and filled with resin. I added a small amount of colloidal silica to thicken the mix and then poured it into the holes which were sealed on the underside with masking tape. I used a syringe to pour the resin for extra control. Because the corner blocks have quite a lot of material removed by the loose tongue slots and the pivot holes, the use of resin not only provides a low friction contact with the stainless steel, it also strengthens the wood around it. I mixed the resin by weighing the proportions with digital kitchen scales. I keep a list of quantities for projects when I use resin so that I can reduce that risk of waste. After the resin had cured I drilled and reamed the holes to get the smooth fit for the rotation of the lids. The final process regarding the pivot holes was to counterbore them from the underside to 8mm diameter to a depth of 10mm so that a spring and cap headed screw could hold the pivot in place.

The spring was included to allow for vertical movement of the timber and prevent the mechanism from jamming. To ensure alignment of the hole and counterbore, I drilled a 6mm hole in a sacrificial baseplate fixed to the bed of the milling machine table into which a rod was inserted. The box was then turned over and located on the rod, which aligned it with the counterbore drill for which I used an 8mm router cutter.

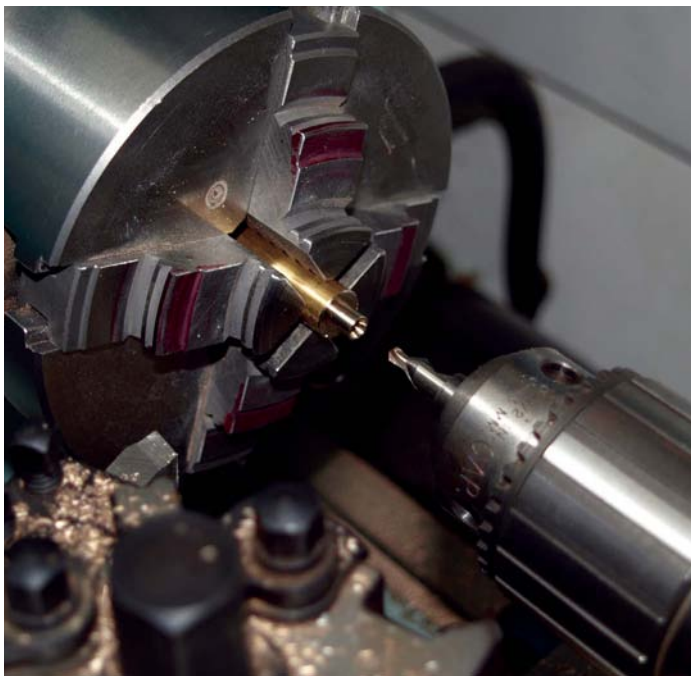
I turned the stainless pivots and brass head caps on my engineering lathe. The brass head caps were coated with abalone shell to add to the aesthetics and catch the eye. The thread that held the head cap onto the pivot was further strengthened with thick CA adhesive and then glued into the counterbored hole in the lid. For alignment, the head cap was glued in place in the lid and then inserted into the pivot hole with a layer of polythene sheet in between them to prevent migration of the glue, which could bond the wrong surfaces. This sequence ensured that the lid would rotate parallel to the upper edge of the box. The process was carried out after the lacquer had been applied – the final assembly.

25 I keep a list of quantities for projects when I use resin so that I can reduce that risk of waste

26 After the resin had cured I drilled and reamed the holes to get the smooth fit for the rotation of the lids



27 The box was then turned over and located on the rod which aligned it with the counterbore drill for which I used an 8mm router cutter



28 I turned the stainless pivots and brass head caps on my engineering lathe

29 The brass head caps were coated with abalone shell

Feet

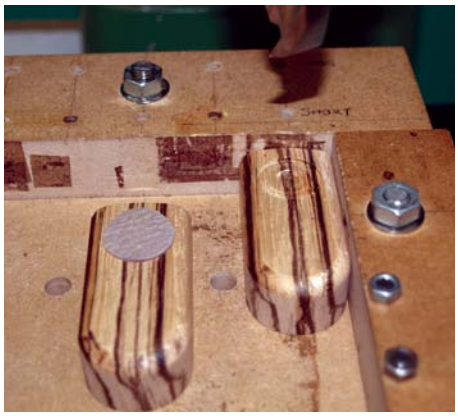
The four corners and the bottom edges were rounded to make the handling of the box more tactile and to prevent damage. To emphasise this from a visual point of view I added four feet which made the box appear to float. These were shaped and fixed to the bottom with screws inserted through the inner surface of the bottom of the box. The inner half-round curve was formed in the same way as that of the handles with a pivot pin on the sliding baseplate of my disc sander. The rounding over of the edges was done on my router table with a slotted jig to hold the feet because of the small size and the risk of handling. The material was removed in a series of cuts to reduce the feed force until the final profile was reached.

To protect the underside of the feet and the surface on which the box would be placed when in use, I routed a recess into which a leather disc was inserted and held in place with double-sided tape. I have a set of disc punches which can be used to punch single discs or in combination to punch washers. The leather was coated with double-sided tape before the discs were punched. The suede side was left exposed to add a small amount of friction to the underside of the box. The profile of the recess was determined by the plunge end of a router cutter which created a rise in the middle that caused the leather to be proud of the underside of the feet, thus providing the friction and soft contact in use.

30 Inner profile of feet formed on the disc sander

31 Rounding over of feet in stages on the router table

32 I have a set of disc punches which can be used to punch single discs or in combination to punch washers



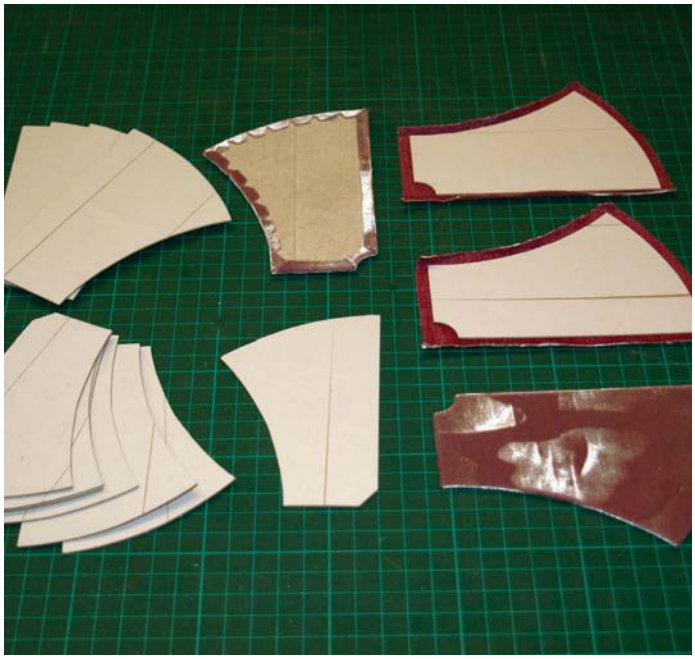
33 The profile of the recess was determined by the plunge end of a router cutter

Finishing touches

I sprayed a basecoat and two top coats of Morrells pre-cat 10% sheen lacquer for the finish. The finishing process is the time when the beauty of the final colour of the wood comes to life. After the lacquer had cured I routed a series of 6mm diameter shallow holes into the top edge of the box into which discs of faux suede were inserted and held in place with double-sided tape. The surface of the suede was just high enough to prevent the undersides of the lids from rubbing against the top edge of the box as they swivelled when they were opened. This action was also augmented with the inclusion of a polythene washer around the pivot which I made with my punches.

The final touch was the insertion of the crushed velvet linings. The velvet was wrapped over a cardboard carrier and held in place with double-sided tape. F&C

34 I sprayed a basecoat and two top coats of Morrells pre-cat 10% sheen lacquer for the finish



35 The final touch was the insertion of the crushed velvet linings. The velvet was wrapped over a cardboard carrier and held in place with double-sided tape

The Foundations of Better Woodworking

This excerpt is taken from Jeff Miller's book The Foundations of Better Woodworking. *To purchase a copy for yourself, see details below.*

ISBN: ***9781440321016***
Price: ***$29.99 (£18.82)***
Contact: ***Popular Woodworking Books***
Web: ***www.shopwoodworking.com***

USING YOUR BODY CORRECTLY – part 1

In this excerpt from his book, Jeff Miller looks at how to use your body, tools and materials to do your best work

PHOTOGRAPHS COURTESY OF POPULAR WOODWORKING

Have you ever thought about how you stand at your workbench? That may be more important to your ability to do accurate work than the quality of your tools. Why is that? Because first and foremost among the tools you use in woodworking is your body. Our bodies are complex 'machines', composed of levers, pulleys, fulcrums and hinges, which can either enhance or detract from how you are able to work with your tools. How you use your body is actually more important than any of the 'external' tools you might have.

How much attention do you pay your body's role? It isn't so much that you need to bulk up your muscles or increase your endurance.

But issues of balance, efficiency, alignment, proper application of force and ways to increase control are all critical to getting the most out of your body and improving the level of your craftsmanship.

Some people seem to be able to pick up a new tool, or for that matter, a new sport, and master it effortlessly. Others find these things far more difficult. Someone who picks things up more quickly tends to have a much greater awareness of his or her body and how it works. This body awareness may seem effortless in those lucky few, but it is certainly something that can be learned and improved, no matter how much or little you start with.

Woodworking 'performance' is all about control. You need to maximise the control you have over your tools to do your best work. In addition, almost everything you do as you work with a piece of wood involves the application of some force to either the tool or the workpiece in order to cut, shape or smooth it into its final form. It's the controlled application of force that matters. How your body is positioned in relation to the tool or workpiece is crucial. How you use your body in that position will either increase or reduce the force you can apply and improve or hamper the control you have over your movements.

Balance

A balanced position is the starting point for most woodworking tasks. And that position should be able to keep you in balance throughout any movement you'll need to make as a part of your task. Obviously, when you're standing upright with your feet together you're not at risk of falling over. But this is a static position, and it doesn't work well for keeping your balance throughout a range of motions. So the fundamental starting position for woodworking is a slightly more versatile stance. Place your feet shoulder width apart, with one foot pointing forward and the other behind and aiming off to the side at 45° to 60°. Your knees should be slightly bent and your hips forward. This is very much like the basic, neutral stance for many sports. As my son, an avid Tae Kwan Do practitioner and instructor pointed out, it is exactly the same as his 'basic fighting stance'. This 'basic woodworking stance' is a position that allows for a wide range of motion in all directions with great balance. Almost everything that you do in the shop will benefit from this stance.

What do you do when a balanced stance just doesn't work for a specific task? Move closer to the work, if possible, so you're not reaching beyond your balance. You can also add a point of stability. This is common at the workbench, but it also works well with stationary power tools. Brace yourself against your workbench and you can lean in for better alignment or power as you do certain types of work. Brace against the edge of the jointer or tablesaw and you can maintain your balance as you apply the proper force to finish the cut. This may seem counter-intuitive on these machines that you might otherwise be tempted to stand back from. But it actually puts you in a much safer position.

It's not always as useful, but there are some situations where you can hook your foot around a leg or base of your workbench as well. This can help with your balance or the ability to push in certain directions, and therefore the control you have over your body.

You should also keep in mind that you can and should adjust the position of the workpiece to allow you to keep your body in a good position. It seems obvious to point this out, but it's commonly ignored. A few seconds of moving, rotating or raising or lowering a piece can save you from contorting your body to get into a position to do your work. It may save you some lower back pain and it may even increase your accuracy. Get in the habit of noticing your body position in relation to your work. Once you start paying attention, you'll find that making adjustments to the workpiece is much easier on your body than contorting yourself to accommodate poorly positioned work. It's usually more efficient and accurate, too. Never work beyond your balance point. If you are off balance in the workshop it will cause serious problems with control and, more importantly, safety.

The basic woodworking stance

You get even more stability when you brace against a bench or tool

Form

An athlete looking to improve his or her performance will often work on form – on finding the most efficient, powerful and controlled way to use the body. The science of athletic performance has examined ever more successful athletes and has determined that certain ways of running, swinging a bat, golf club, or tennis racket, throwing a ball, shooting a basketball, pedalling a bicycle, etc. lead to better results. An athlete will practice over and over, looking to be sure the ideal form becomes a natural part of how he or she performs.

Although woodworkers rarely talk about form, it is no less important. How you use your body affects everything. Using your body properly will help you increase your safety, control, power and accuracy. Using your body incorrectly makes it significantly harder to achieve any of these. Interestingly enough, this applies not just to hand tool work, but is equally true for machine work. Good form is just as important on the tablesaw, the jointer and even the router, as it is with a chisel, hand plane or tenon saw. And on the machines, proper form can be a matter of safety as well

Balance in motion

You rarely stay in one position as you work. Movement is an essential part of most of what we do. As you might expect, your movements, whether with tools or with wood, should be smooth and steady, balanced and controlled. This means more than just normal walking, just as standing at the bench to do your work involves more than simply standing there. Balanced movement, especially when you have to move while controlling a board or a tool, involves a smooth transfer of weight as you move from foot to foot and keeping your weight low – bent knees. This will help you apply consistent pressure to keep a long board against the fence at the tablesaw, or a hand plane against a board at your bench.

The basic woodworking stance

The basic woodworking stance will not, by itself, change your woodworking, but it seems like most good woodworkers rely on something like this for most of their work. This is because it works; it sets up your body well for the majority of tasks. This is true not only for chiseling, sawing and hand planing, but also when using the tablesaw, jointer, bandsaw and other power tools.

It's not that the basic woodworking stance is always required. It's simply that using your body well most often falls back on certain things, and this is one of them. Don't feel like you immediately have to change the way you work in the shop. But start paying attention to proper use of your body and you may find this position to be one that puts you in the best position for your work while allowing for more efficient, powerful and accurate use of your body

Force, control & alignment

It's almost always true that you apply force and exert control separately. Most often, force is applied with the lower body, and control with the hands and arms. Obviously, nothing is completely independent when you're doing this; the force has to go through your core – abdomen – upper body, arms and hands to get to your fingers. Concentrating on force and control as separate jobs for different parts of the body will help your body make the appropriate adjustments.

My forearm isn't lined up with the saw, which means both my wrist and shoulder have to rotate when I cut

One of the most important factors connecting force and control is proper alignment. Alignment helps to avoid wasting force; it's more efficient to have your body in proper alignment with the work. Think about trying to move a heavy object; you want to be directly behind the object and pushing in the direction you want it to go, not off to one side and pushing at an angle. When your body is not aligned properly, there is additional work that needs to be done by your muscles as they make the corrections that need to be made in the angles of the joints.

Alignment is also essential for accuracy. Your joints are a series of linkages that provide you with remarkable flexibility in how you move, but these linkages can also introduce lots of hard-to-control motion. It's certainly possible to learn how to work this way, and there are situations where you will have to make do – cramped quarters inside a case, an awkward angle for planing, etc. But reducing the number of joint movements that need to be controlled makes it far easier to achieve accuracy. And reducing the amount of inefficient – and therefore harder – work can also improve accuracy. The harder you work in any situation, the less likely you are to be accurate.

Misalignment introduces inaccurate movements. If you're trying to make an accurate cut with a handsaw, you need to move the saw back and forth in a very straight line. If your forearm is not lined up with the back of the saw, your shoulder and wrist will have to continuously change angles to compensate – wasting energy as well. While it may be possible to do that, it's much easier to keep the joints aligned so that you only really have to move the shoulder and bend the elbow a little in a single plane. That motion will naturally be

Accounting for the way in which the body moves

The mechanics of how the body moves is also a factor in woodworking. Joints rotate and pivot, twist or turn only in specific ways. For example, the elbow is basically a sophisticated hinge that allows the lower arm to pivot in one plane, and also to rotate in a limited way. The shoulder allows for rotation and pivoting within its own limits. Each of your joints has a very specific impact on how you are able to move. You want to take into account the way these capabilities and limitations affect your movement as you work. Once you're aware of these natural tendencies of the body to work in certain ways, you can then work on modifying the movements to minimise problems or take advantage of specific body mechanics to ensure more accurate work.

If you're sanding a board with a side-to-side motion, for example, you should realise that the natural tendency of your arm when it moves from side to side is to move in an arc. That's how your arm moves as you pivot from either the elbow or the shoulder. Moving the sandpaper this way will leave some cross-grain scratches on the wood as part of the arc-shaped movement. You can compensate by modifying that motion and adding in elbow and wrist movement to get a straighter line, which will take some concentration and practice, or by changing the orientation of the piece – or yourself – so that you're sanding forward and back instead of from side to side. This is a more natural straight motion.

The back-and-forth motion doesn't solve all problems, however. When moving your hand or hands forward and back on a surface – as when sanding directly away from you – there is a tendency to change the angle of your hands; the wrist joint flexes more when your hand comes closer to your body, and straightens out as you move further away. This isn't a factor at all when you're sanding, but if you're sharpening by hand, you're likely to change the bevel angle as you move. There are ways around this problem, too, moving forward and back more from your feet and keeping your upper body still.

You can take advantage of the natural pivoting of your arm when using a marking gauge. If you pull the marking gauge toward your body, your natural tendency will be to push it harder against the work as it comes closer. Push it away and the natural pivoting of the arm will be more likely to take the gauge away from the work.

The natural pivoting motions of the shoulder naturally lead to a curved stroke with the sandpaper

linear. And there's the added benefit of transmitting the force straight through the wrist, which no longer has to flex out of alignment and can stay straight.

Movement through aligned joints is important in more than just hand sawing. It's a key component in working at the jointer and tablesaw, and when using a chisel, hand plane and many other tools.

Basic principles for applying force

1. *Use your weight and proper position, not strength*
2. *Use bigger muscles rather than smaller ones*
3. *Don't be lazy about changing your position or that of the workpiece so you can take advantage of either of the first two rules*
4. *Use mechanical advantage wherever you can find it*
5. *Don't over-reach*
6. *Don't work harder than you have to – this will impact accuracy. Any time you have to push or strain, try to remove too much material at once or you get tense about something you're doing, it will impact your accuracy; it's extremely difficult to work hard and precisely at the same time*

Here, the saw and my forearm line up correctly. I'm a little further off to the side in order to accomplish this

Generating force

We've determined that proper alignment of your limbs is important if you are to apply force efficiently. But where does that force come from? It depends on what you're trying to do. But most of the time, more of the body should be involved than you might think. The general principle is to rely on your larger muscles or muscle groups to apply the force. Because it has your body's strongest muscles, your lower body should be working a lot of the time. This is another reason why you need a balanced position and controlled movement. Whether it's hand planing or pushing a board over the jointer, the lower body actually should be doing the bulk of the work. And even sharpening by hand works better if you're using your lower body for the overall movement. To take advantage of this, you need that balanced stance.

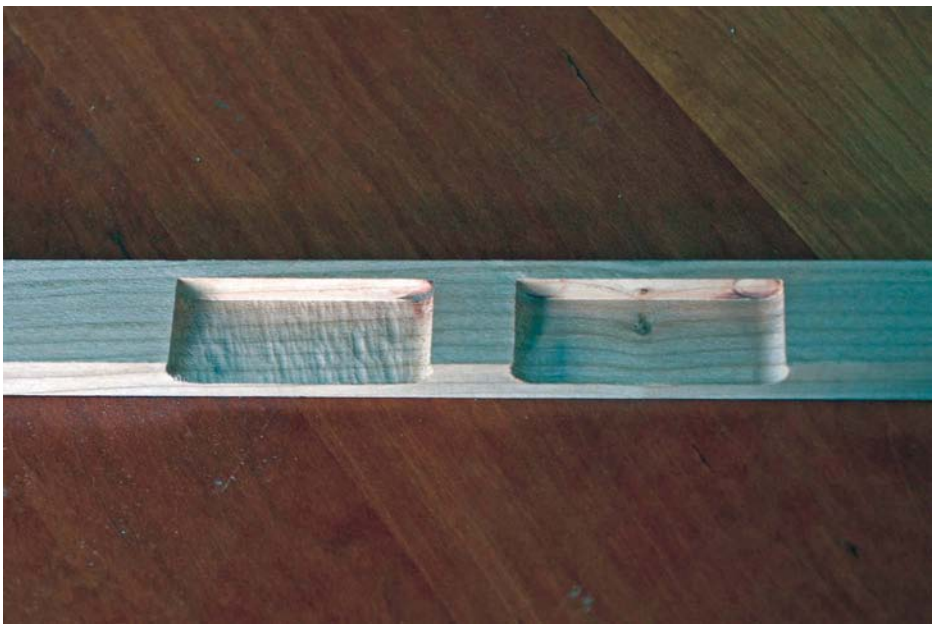
Of course, it's not always the lower body. Paring with a chisel is usually upper-body work, but it's not solely hand or arm work. Working from the shoulders, or even bending at the waist to transfer upper body weight, is far more effective.

Stop working so hard

Working hard and working accurately do not go together. This isn't a call to improve your accuracy by lazing around in the workshop, but you need to ease up when accuracy matters. This is easy to see when using a chisel – if you try to take off too much wood with each cut, you're much more likely to have the cut go astray as you struggle to get through the wood. You'll also be liable to compress or split the wood, sometimes disastrously. Paring or chopping smaller amounts of wood will be more controlled and more accurate. You can certainly whale away when you're just wasting away material and the work doesn't have to be precise. Just ease up when the work gets critical.

Interestingly enough, working hard and accuracy don't go together on machines either. Straining to support your workpiece will mean you have less ability to control it. But more importantly, when you push a machine or cutter to work too hard – cutting too fast or too deep, for example – it will have an impact on cut quality and accuracy as well. You have to pay attention to tell when a machine is working too hard, but once you're aware of the problem and have mastered the signs, you'll find that you quickly learn what works and what doesn't.

Cutting too hard – or fast – with a machine makes a mess of the cut. I cut the block in front too quickly on the tablesaw. I fed the back piece through the saw at the proper speed



Cutting too aggressively with the router caused problems both visible – note the rough surface – and invisible – it is measurably wider – in the mortise on the left – sliced in half lengthwise. The otherwise-identical mortise at the right was routed at an appropriate speed

Increasing your control

If the larger muscles and muscle groups provide the bulk of the force needed to do most tasks, your fingers, hands and lower arms provide the control. In most situations, your fingers and hands shouldn't be asked to do both.

Control can mean many different things: there's the control over tool location, which is important for chisel placement, and there's control over the angle at which you hold a tool, which can be critical during sharpening or chisel work. There's control over pressure distribution, an important part of successful hand plane use. There's no secret formula for all of this control. But there are common denominators. Control requires concentration and not surprisingly, control also requires proper hand and body position.

Control over placement comes the closest to having a simple answer. All of us have been training our hands for detailed work since very early childhood. Writing requires an extraordinary amount of precise control, and it's a good idea to tap into that skill. Use one hand – it doesn't have to be your writing hand – to provide that high-level control. This means holding the tool more or less like you would hold a pencil, close to the business end. Your other hand – often in conjunction with your upper body – can provide the necessary force. Keep your detail hand grounded on the work if possible. You don't write with your hand up off the paper, and there's no reason to try to control a chisel or other similar tool that way, either.

To keep good control of an angle you have to maintain your position well. And this involves more than just your hands. You'll usually have to 'lock up' your upper body, holding the elbow and forearm of one or both arms against your body.

Control over pressure distribution, so important to hand plane use, is the least obvious, largely because it's not something you can see. It's a feel, an awareness that you'll need to work to build. Fortunately, there are some simple exercises that can help. Body position is still critical.

Try planing a short board – 20mm thick, 100 or 125mm wide and about 200mm long – against a single bench dog. You'll discover right away that you need to push down more on the front of the plane as you get started, and on the back of the plane as you get to the end of the board. You also need to maintain good side-to-side balance. Keep at it until you don't tip the board over at the end of the cut.

Another exercise in good control over hand pressure is planing a convex board with a smoothing plane. This gets harder as the plane gets bigger. Keeping the plane cutting means you have to constantly adjust the balance between your hands. Try to get long, continuous shavings.

Where control most often falls apart is when you start to apply force. This is where the rest of your body is so important. If you want to hold your upper body position carefully to maintain accuracy, you have to rely on body weight or your lower body to apply force. It's also very important to limit your cut to what can be done without messing up your control.

Despite the fact that force and control are often handled by separate parts of the body, they still happen at the same time and are interdependent. Luckily, you're pretty well wired to combine different types of motion easily – the old walking and talking thing. And if it's not easy right off the bat, it's something that you'll get used to fairly quickly. If you find it too much to think about at once, work on getting the movement responsible for force in place first, and go over it a few times. Once you don't have to think about it as much, you can concentrate on what you really need to pay attention to: the control stuff.

There are some tasks that seem to require concentration on both force and control at once. Feeding awkward boards through the tablesaw and over the jointer come immediately to mind. Both of these call for steady feed rates despite shifting hand positions and less-than-optimal alignment for applying force. These situations simply require practice – try a couple of test runs with the machine off – so you can get used to the awkward setup. F&C

The pencil grip for a chisel

Planing a short board upright against a single bench dog is a good way to learn about balance and pressure when planing

To keep the cutting edge on the wood when you plane a convex curve with a straight plane, you have to learn to balance the pressure between your hands

PHOTOGRAPHS BY JASON THIGPEN

Custom leather tool cover

Jason Thigpen encourages you to get your needle and thread out to produce your very own custom leather tool covers

As a woodworker, having basic leather working skills can be very beneficial. Leather is the ideal medium for protecting our sharp edge tools both in storage and in transport. Let's face it, those cheap synthetic accessories on the market today can't compete with their leather counterparts.

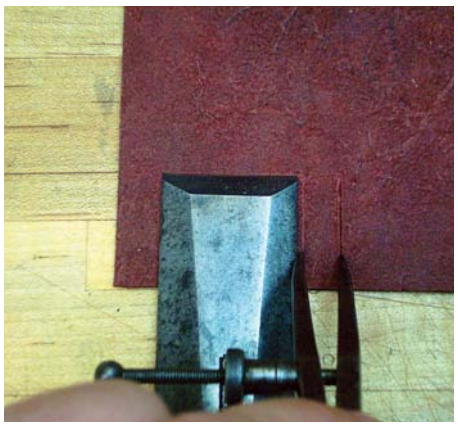
I'm frugal by nature: if I don't have to buy a tool, I won't. Working leather requires a few speciality tools, the rest can be covered with standard woodworking and household tools. In this article, I will illustrate leather working tools and techniques necessary to make a protective cover for a 37mm wide Stanley chisel. All of the procedures today can be applied to most any chisel size or type. You can also apply them to holsters and sheaths for other tools – be creative. This project will focus mainly on hand stitching, as that is the cornerstone of leather joinery. I'll show how a minimal investment in tools and supplies can help protect all of the sharp edges you work so tirelessly to achieve.

Other everyday tools and woodworking tools that will be used. Pictured from left to right: 150mm metal rule, small dividers, chisel, small needle nose pliers, marking knife or utility knife and rotary knife

Prepping leather

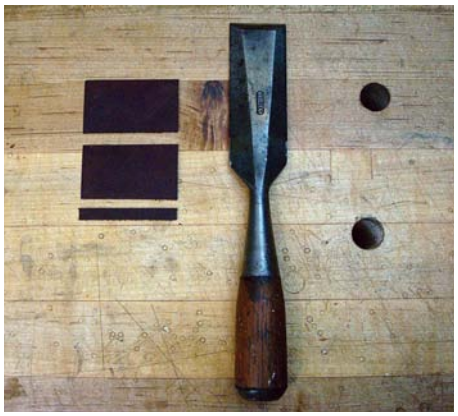
When selecting leather, only choose vegetable tanned leather as it's less likely to corrode your tools. You can purchase remnant bags of veg tan from your leather shop; there's no need to purchase an entire hide. As always, proper tool maintenance is a must. Waxing your tools or wiping them down with oil after each use is the best way to prevent corrosion, regardless of leather type. Leather is available in a variety of thicknesses. Choose the thickness based on the tool you intend to cover. Heavy-duty items, such as axes or drawknives, should be protected with thick, durable leather. More delicate tools, such as fine backsaws and chisels, should utilise lighter leather. Since those tools should always be handled with care, a bulky sheath just isn't necessary and can be cumbersome to work with.

A basic tool cover consists of three pieces: the two main outer covers and the welting. Using a rotary cutter and a metal rule as a straightedge, cut the leather approximately 10mm oversize in all dimensions. You will need two pieces that are the same size for the outer sections. The third piece will be a strip 5mm wide; this is the welting – it is sewn in between the other two layers at the end of the chisel cover, preventing the sharp blade from contacting the stitches. Welting is a must, there are no two ways about it. To prevent a bulky transition at the ends of the welting, the ends need to be skived. Skiving is the act of reducing the thickness of the leather. There are specially-made tools for this purpose, but all you need is a sharp chisel and a steady hand. Gently taper the last 5-10mm of each end of the welting using the back of the chisel. You are now ready for glue up.



A set of dividers are the perfect tool for marking the layout of the chisel cover directly on to the leather's surface

Using a standard rotary cutter and metal rule to cut out the pieces from this vegetable tanned leather scrap



A chisel cover is comprised of three pieces: two outer pieces are identical in size, approximately 10mm wider than the chisel in all dimensions. The third piece is the welting; it is only 5mm wide and is used to protect the stitches from contact with the blade

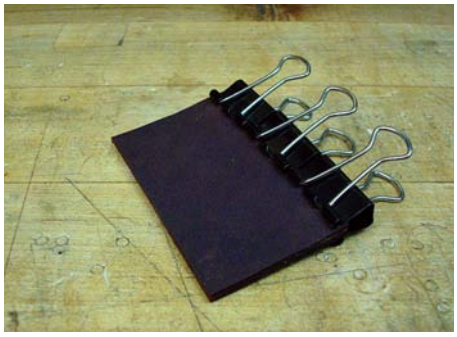
Using the back of a sharp chisel, gently taper the last 5-10mm of each end of the welting. This will allow for a smooth transition along the stitch line

Holding leather

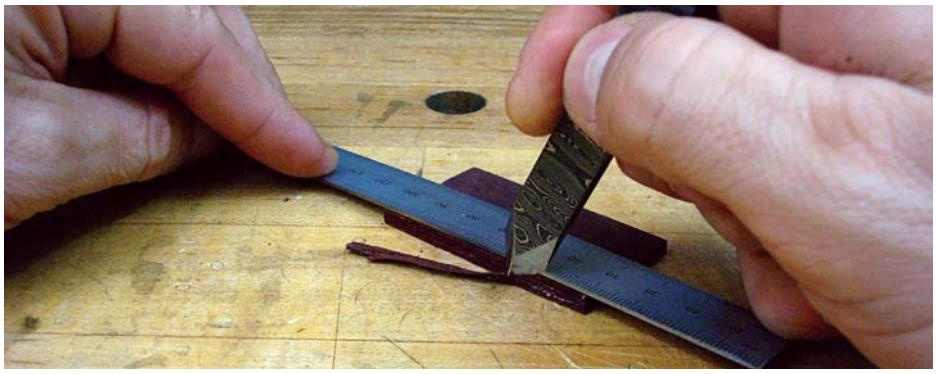
Apply a thin layer of leather cement to the seams that will be stitched. Line everything up by hand and clamp the pieces together with binder clips. Once the cement cures, use a straightedge and marking knife to flush the edges up. The stitching groover is now used to cut a groove along the stitch line. Using a diamond chisel, punch holes along the stitching groove, starting in the corners to ensure proper spacing.

If you research hand stitching leather, you will no doubt come across references to a stitching pony. The stitching pony is a wooden clamp with leather-lined jaws that holds the work, freeing up both hands for quick and efficient stitching. Stitching ponies excel at holding work when longer runs of stitches are needed. When making smaller items, I just hold the work in my hands. For me, it is easier to manipulate the needle and the workpiece as I stitch. This is where the needle nose pliers come in handy. You can insert the needle in a hole and pull most of it through by hand. Once the eye of the needle reaches the hole, use the pliers to pull the needle the rest of the way through. Over time, those pliers will become your best friends. They save your fingers from the abuse that waxed cord can dish out, and let's be honest, a stitching pony takes up space – space I'm not willing to give up for an appliance that will be used sparingly. Needle nose pliers take up much less room and are far more versatile beyond leatherwork. It might be unconventional, but it works and gives great results.

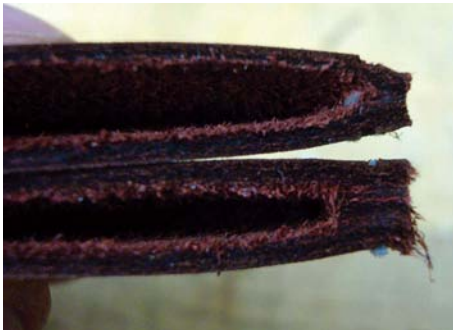
Apply leather cement to all edges being stitched; this will help hold the leather together as you pierce holes and stitch. I prefer using a water-based leather cement from Tandy Leather. Here you can see the skived ends of the welting



Small binder clips are the perfect clamping accessory. If you feel that they may mark the leather, a piece of paper can be placed between the clips and leather while clamped

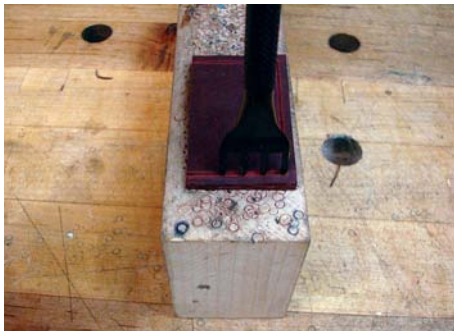


Using a marking knife and a straightedge, the edges of the leather are flushed up after being glued. This provides a consistent surface for the stitching groover to reference from



In these cross-sections, you can see the exposed thread where no welting is used – top – and the added protection when welting is used – bottom

The stitching groover cuts a channel for the thread to sit in; this keeps the stitches below the leather's surface, reducing abrasion and wear



Using a four-prong, 4mm spacing diamond chisel to pierce the leather. Starting in the corners ensures proper spacing. A cutoff from the scrap bin serves as a backer while piercing holes – cheap and highly effective

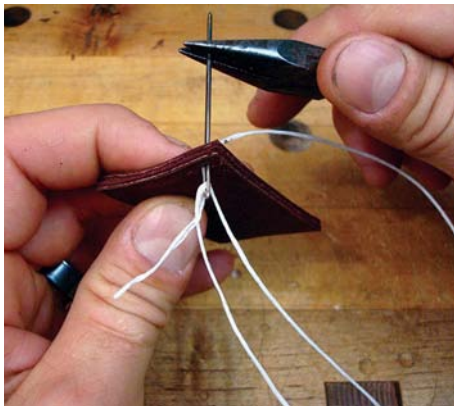
Stitching

Now it's time for the first stitch using a saddle stitch. It is an extremely strong and long lasting stitch that is impossible to accomplish by machine – it can only be performed by hand. What follows is an abbreviated lesson on saddle stitching. For more information, *The Art of Hand Sewing Leathe*r by Al Stohlman is considered by many to be the authoritative tome on stitching leather.

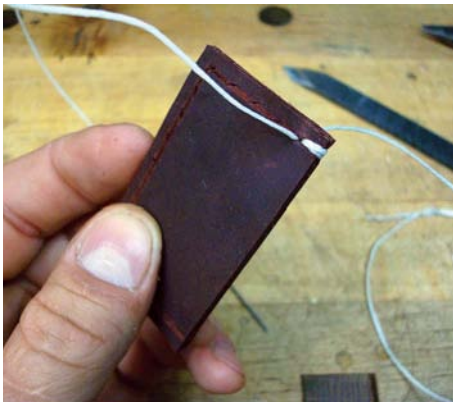
Start the stitch in one of the holes at the opening. Insert one of the needles and pull the thread through until you have equal amounts on both sides of the leather. Instead of going straight to the next hole, loop the needle around the opening edge of the leather, going through the first hole again from the other side. Do the same with the other needle, completing the first stitch. I prefer to start and end my stitch this way if possible. It locks down both pieces of leather and helps reinforce the opening. Continue your stitch by inserting one of the needles through the second hole, using the needle nose pliers to assist when needed. Traditional hand stitching calls for thick pads on the palms to help push the needles through. It also calls for holding a sharp awl while stitching, used for opening the holes for the needles. Using the pliers eliminates the need for both tools. As you continue your stitching, know that consistency is key. I always start each stitch with the needle on the right, inserting into the hole, pulling through the excess thread. I then insert the other needle in the same hole, on top of the other thread. Pull the thread through, then grasp both threads and give them a snug pull. Starting again with the right needle, I continue this process until I reach the last hole. I wrap both threads around this side the same as I did on the other opening, going back into the first hole with both needles. I complete the stitch by stitching back two holes, locking the threads in place. Using your marking knife or utility knife, cut the threads off as close to the leather as you can. The waxed thread and the backstitch are more than enough to secure the stitch.

Start in the first open hole near the opening. Insert one of the needles, using the pliers to assist if needed

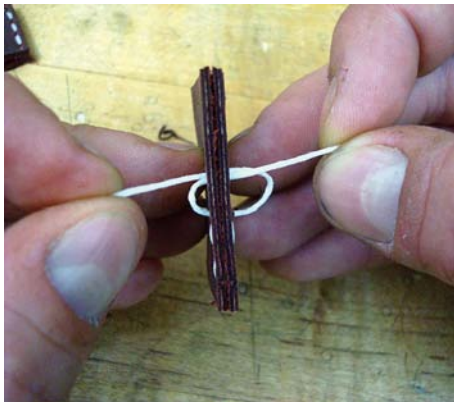
Specific leather tools that will be needed. Pictured from left to right, *The Art of Hand Sewing Leather*, hand burnisher, diamond chisel, adjustable stitching groover, No.2 keen edge beveller, needles and waxed thread



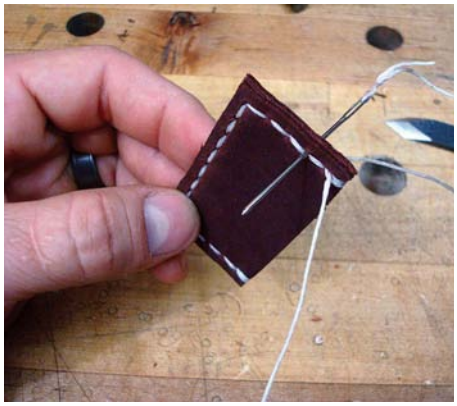
Bring each needle around the edge at the opening, going back into the first hole. This creates a reinforced area at each corner



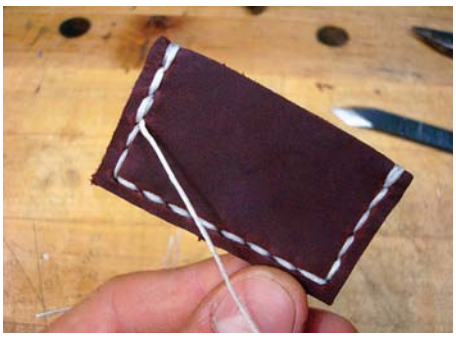
Here you can see the completed first stitch. Note how both threads wrapped around the edge of the opening, reinforcing that corner



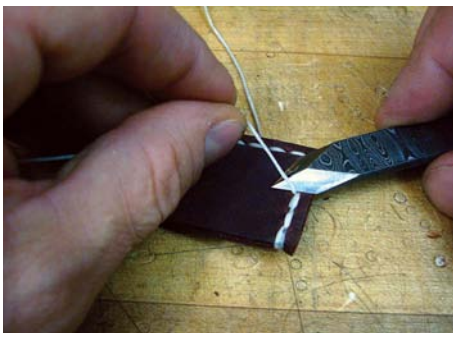
Continue on to the next hole, keeping your rhythm and technique consistent. Give both threads a firm tug after each stitch; this will allow you to lock down the joint



Once you reach the end of the cover, turn around and start heading back the other way. This is called a backstitch and helps secure the end of the thread without having to tie knots



When performing the backstitch, go back at least two holes; this will keep proper resistance on the thread, holding it in place for the life of the cover



Using a sharp marking knife to trim excess thread results in a clean cut, close to the surface

Using the edge beveller tool to round over all of the edges prior to burnishing

Finishing

To finish it all off, the edges need to be bevelled and burnished. This step isn't necessary, but it's the sign of quality work. Use the edge bevelling tool and round off all of the edges of the chisel cover. Gently rub the edges of the chisel cover with wax – either beeswax or paraffin wax will work fine. Using the burnishing tool, rub the wax into the edge of the leather until a smooth surface is the result. This step not only improves the overall feel and aesthetic of the piece, it also seals the end grain of the leather, preventing moisture ingress and extending the life of the leather.

Occasionally, the leather cover could use a light coat of neatsfoot oil or mink oil. Either one will do a splendid job of keeping the leather in top form. Now, take a slow look around your workshop. With your new found skill set, nothing is safe. Soon everything will have a custom leather cover!

Suppliers

All of the leather working tools featured in this article can be purchased from Tandy Leather
Web: *www.tandyleather.eu*

After bevelling the edges, it's time to clean them up with some beeswax and this wooden burnisher

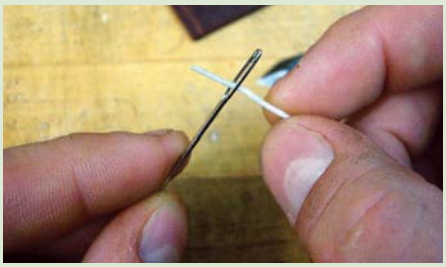
Lightly rubbing a block of beeswax along the edge of the leather prior to burnishing. The warmth created here melts the wax, allowing it to penetrate the leather

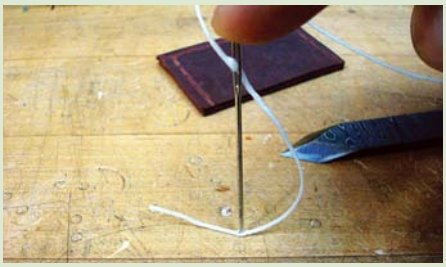
Here you can see the edge of the leather after burnishing. The warmth created during the process melts the wax, allowing it to penetrate and adhere to the leather. This provides protection for the leather and looks aesthetically pleasing

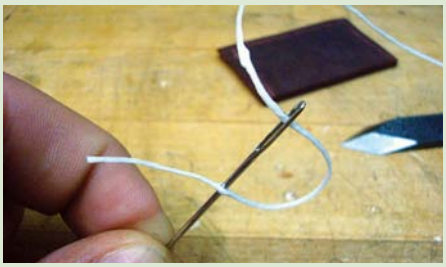
The finished product should have a nice friction fit. It should slide on and off with ease, yet hold snugly on its own

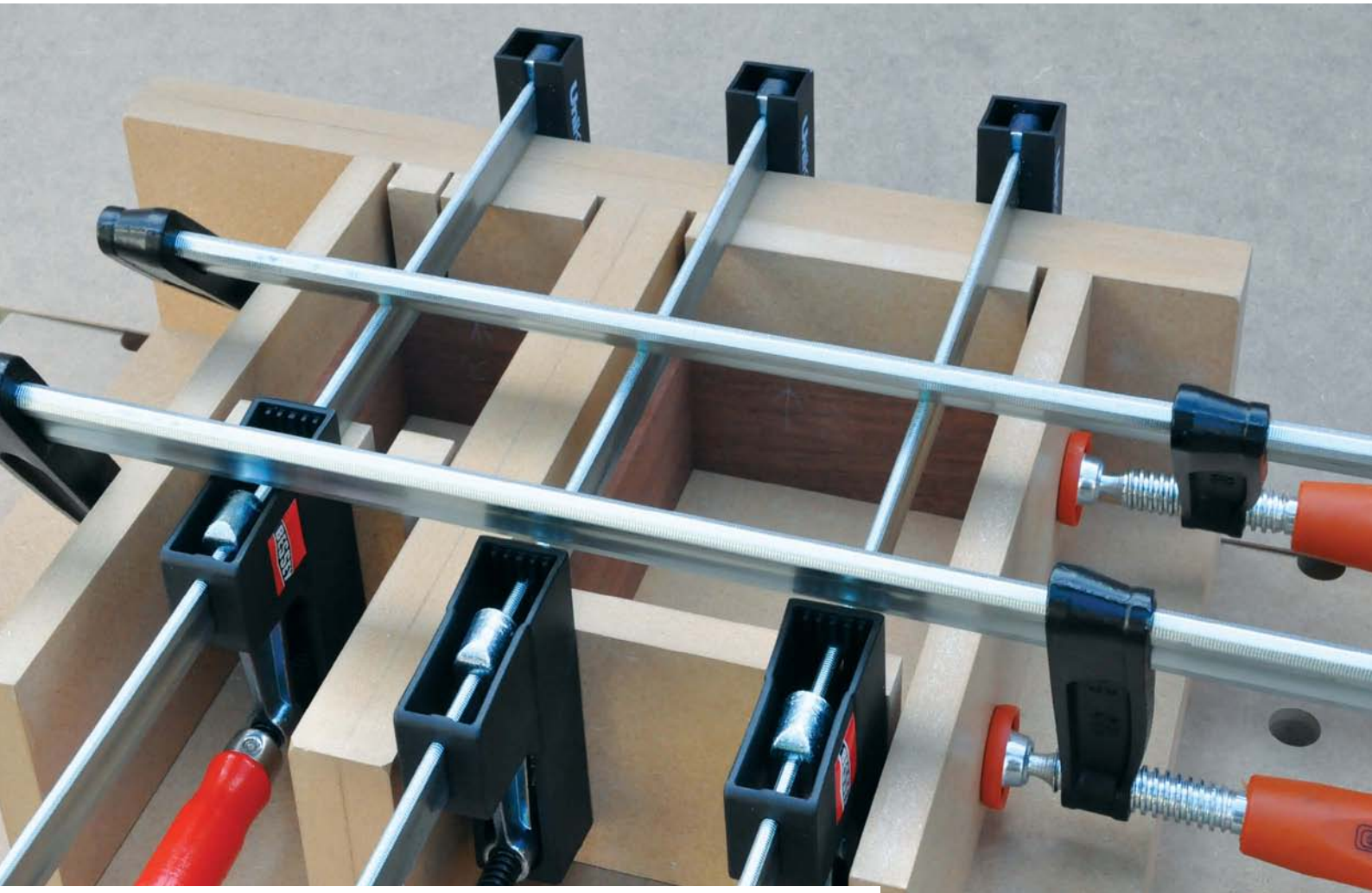
Threading needles

There are several different techniques outlined for threading a needle for leather work. The technique shown here works best for me. Begin by selecting a length of thread appropriate for the amount of stitch work needed, generally 3-4 times the total length of the required stitch. Insert one end of the thread through the eye of the needle. Pull a bit of thread through the eye so that the tip of the needle can reach about 30mm from the end of the thread. Pierce the thread with the end of the needle, sliding the pierced thread down the shaft towards the eye. Once at the eye, pull the thread over itself, creating a looped connection. Thread a needle on the other end of the thread in the same fashion. F&C









Keeping it square

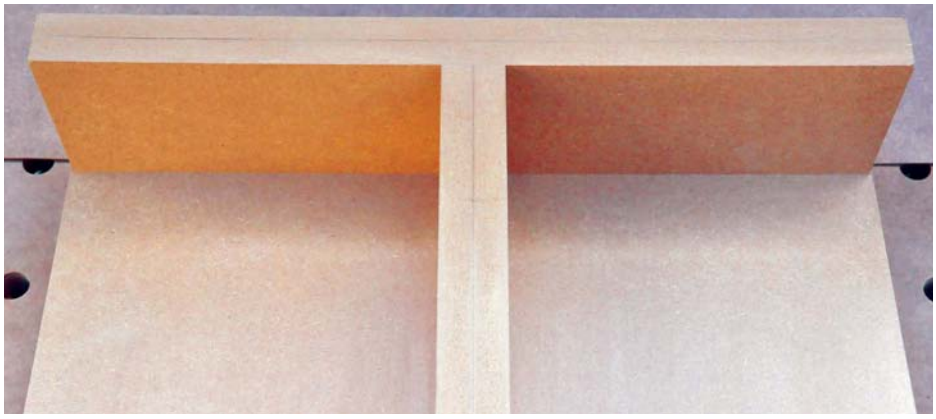
Geoffrey Laycock shows you how to make a simple jig to take the stress out of assembling components

Probably the most dreaded time for most woodworkers involves the glue bottle and cramps and clamps. Making decorative small boxes is no different and just because they may be diminutive compared to a chair frame or cabinet, it is no less a struggle to get everything done before it's too late. This simple jig takes almost all the stress from this final stage in assembling the components of a basic square or rectangular box: the four sides, a top and bottom.

Referring to the main photo

The advantage is that all those straight lines, 90° angles and consistency makes quick cramp positioning easy. The Bessey UniKlamps are excellent for this task but do have a limit to reach. I cannot justify the cost of Bessey long reach 'F' cramps hence the fettled Bahco ones in use

The main photo shows how the jig is used in practice although the two box carcasses you can see have not been routed for the top or bottom to be fitted, thus allowing a clearer view of what is going on. I wouldn't normally try to glue up two different sizes but with a little extra thought and care you can. You may be thinking you don't make boxes so this is of no interest. This jig can have many uses; it's up to you what it helps with. If you hadn't thought of making decorative boxes, then there are various people around who can teach you and I can personally recommend Andrew Crawford – www.box-making.com.

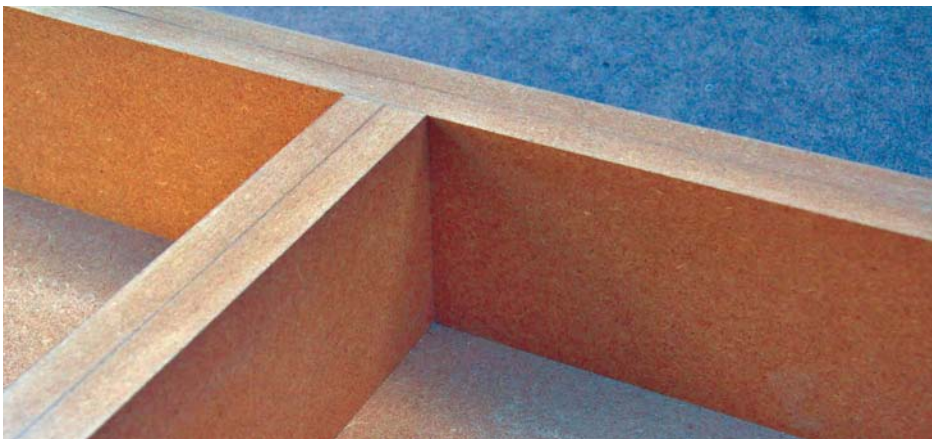


The basic jig: two same-sized identical boxes are easy to glue-up simultaneously, different sizes with care. It's not exciting but you'll be pleased you made it

PHOTOGRAPHS BY GEOFFREY LAYCOCK

Simple is best

The theory behind this simple and incredibly useful jig is the meeting of three planes. We have a flat baseboard with a 'T' piece attached. The key to success is that the 'T' has accurate 90° corners where the two parts meet and then the 'T' components are both also at 90° to the baseboard: the only angles you can measure on my jig are 90°! I've used several and this latest one is heavy and solid and used for more than just gluing. The dimensions are up to you but as a guide, mine will easily take two box carcasses at the same time that are 100mm deep and 200 × 300mm in plan, or slightly larger with an additional MDF sub-base.



The most important corner you will make. If every angle you can see is 90° you are heading for stress-free glue-ups

Accurate cutting

The jig is constructed entirely from 18mm MDF. The sheet used was left for some time in the workshop to acclimatise and the finished jig would rarely leave that environment. We are told how stable MDF is, but why risk movement? I checked the board was flat, i.e. not bowed, and also smooth – we don't want impressions left in our boxes by imperfections in the surface.

After deciding on sizes, begin by cutting the two pieces to make up the base. I glued these together using biscuits, having checked both were flat. I didn't cramp or clamp them together; I placed them on a known flat surface and weighted evenly a further flat board. Once cured, I trimmed all four sides smooth, ensuring they were at 90° to each other; I used my shooting board for this as I wanted to know that every edge and corner was a right angle so I can use any as a reference. The top surface was then lightly sanded with 180 grit abrasive to ensure there were no tiny projections that might later affect delicate surfaces.

Next, glue the pieces together that make up the top and stem of the 'T'. Again, I then ensured all edges and sides were 90° and I sanded what would become the inner surfaces of the two assembled 'T' components for the reason above. It was then time to make up the 'T' itself, done in two stages. The first job was to secure the top of the 'T' to the base and biscuits were used again. During the gluing of this, I wanted to ensure the vertical surface of the section was as accurate a right angle to the base as possible. After much checking, it was left to cure before stage two.

The 'T' section is secured to the base with a number of Miller dowels and the two 'T' elements are similarly dowelled

Fitting the stem of the 'T' in place was next and again lots of checking was done before leaving to cure. I did not use biscuits here as I preferred to wait until the glue had gone off properly before adding mechanical security. To prevent movement, I resorted to Miller stepped dowels from underneath into the 'T' stem to prevent sideways movement and through the top of the 'T' into the stem to hold them at the accurate 90° I had achieved. Using these dowels allowed me to lock the components together with minimum chance of anything moving.

A few words on accuracy

Any minor error in the internal angles between base and 'T' section will always be transferred to your workpiece. Don't use your 30-year-old Marples try square for setting out and checking unless you have carefully checked it is still accurate. I have one large Moore and Wright engineer's square – see *F&C* 201 for a review – which I use as a reference to check other squares and instruments. You don't have to go this far; just check whatever you are using with the edge trick. Have a piece of board with a straightedge and scribe a line with the square. If you flip the square over so the stock now points the other way along the edge, then the square edge should still line up with your marked line. If it doesn't, then you will not have an accurate jig. It is also a good idea to check that both the inner and outer edges of a try square blade are straight, parallel and both at 90° to the stock – not guaranteed even with a new one!

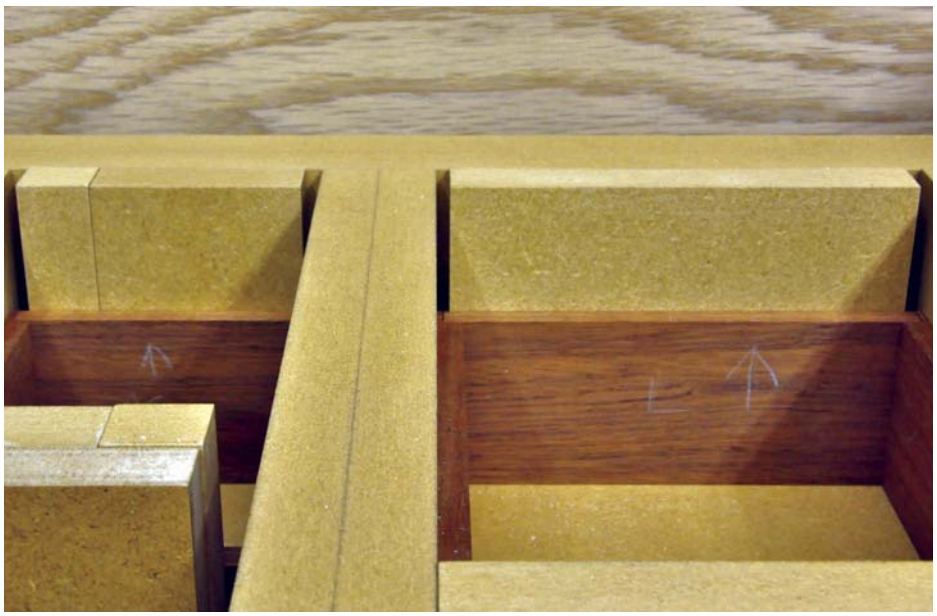
Finish your jig to look nice

After checking all angles again, I carefully removed any glue squeeze-out and after a thorough removal of dust, began to apply four coats of satin acrylic lacquer. The three key surfaces were lightly sanded between each coat to avoid tiny lumps that may cause damage in use. A good impervious coating will ensure that any glue coming from box joints is easy to remove and, in practice, this is the case.

I did exactly the same to all the spacer blocks. Again, there is little point in giving sizes but my collection now caters for almost any box size up to 200 × 300mm. There are two critical dimensions for these spacers. All are made the same height as the jig 'T', which makes life so much easier when aligning cramps. Also, any that may be used side-by-side to fill a need – seen in use for the smaller box – must be the same thickness. Do not assume this will be the case as in the past, I have found up to 0.75mm variation in MDF sheet thickness across one board! It is not always the flat and accurate material we all assume.

> "The three key surfaces were lightly sanded between each coat..."

The 'T' section is secured to the base with a number of Miller dowels and the two 'T' elements are similarly dowelled



These box components are not ready to glue; they have no machining for fitting of base or top but they do show how they sit on the baseboard and are held along each side securely with even pressure to be applied

In use

Always carefully clean the basic jig before starting and inspect every spacer block for any damage, especially if you drop one; when dealing with delicate box components a distorted corner could be enough to reintroduce the stress we are trying to avoid! I place the jig on anti-slip matting to avoid the possibility of movement.

Always have a dry practice. This allows you to select spacer blocks as necessary and the most appropriate cramps – or clamps – depending on your terminology. I've always worked understanding a clamp secures things together, often permanently, while a cramp pulls things together temporarily such as when gluing – but that's just me.

The spacer blocks should be chosen so they place pressure evenly on each component, especially near the joints – in these boxes simple corner rebates. If you make the rebates slightly too deep so the joint can be finished off later, you will need to have one spacer against the 'T'. This needs to be a size that does not interfere with these rebate projections.

Using 'F' cramps as shown here, the reason for having all the spacers the same height as the 'T' section becomes clear. The rail of the cramps can rest on these top surfaces and you can use the edges of the baseboard or of the 'T' as further references – remember all are parallel or at 90°. Place the long cramps last so these can rest on top of the shorter ones.

Using long-reach versions means you can still get the cramp heads down to the centre of the component sides but probably need to have them leaning over if you want support for them. A quick word about the Bahco cramps in the photos: these are well made and incredible value compared to other long-reach ones available. They do suffer from the fixed jaw not being quite perpendicular to the rail, as you find on many makes. I ground these so they are square using the Robert Sorby ProEdge, which was reviewed in *F&C* 221. I did write at the time that some minor shortcomings as a sharpening system were balanced by other benefits, one being its use as a metal linisher and for this additional task it was perfect.

A variety of spacer blocks – note they are all the same height as the 'T'

If you use two spacers for an odd size, ensure you have a further block behind to apply even pressure from your cramp

The Bahco 'F' cramp end jaw ground to ensure it is at 90° to the cramp rail and applies even pressure. The plastic shoe still fits securely

And later

Keep your jig safe, stored flat, clean and damage free. Do the same with your ever growing collection of spacers and the time taken in construction will be repaid many times over. It has other uses too: want to make up a wooden try square? If you were accurate in the making of the jig, this will allow you to glue one up as accurately as you can get. Small drawer assembly is easy and trays to fit in boxes take a matter of minutes. I keep finding tasks it helps with. F&C

Further information

Moore & Wright engineer's squares
Web: www.moore-and-wright.com

Robert Sorby ProEdge
Web: www.robert-sorby.co.uk

Bahco 'F' cramps
Web: www.bahco.com

Our correspondent...

...parallel skills

PHOTOGRAPHS BY KIERAN BINNIE

Gathering a wide body of knowledge is the first step in developing your parallel skills

Martial arts instructor Clive Elliott demonstrates a blood choke on the author

Over the years *F&C* has acquired readers from all four points on the compass and since going digital in 2011, that trend has increased. You can find us anywhere in the world with a link to the web.

As the content of the magazine is a true reflection of our readership, we've decided to introduce a new style of article that will take us on a workshop tour of the globe.

Kieran Binnie, who started this series off in issue 224, is in the spotlight again this month. In his first article, he discussed cabinetwork and its link with his past, but moving on, he looks at parallel skills and how these can be transferred to woodworking. Martial arts and woodworking may seem like a tenuous link, but read on, and hopefully all will become clear!

Kieran Binnie discusses the benefits of developing parallel skills, and sets us a challenge for 2015

The first time acclaimed martial arts instructor Clive Elliott demonstrated how to dislocate my spine, my woodworking improved significantly. No, really. Let me explain. While teaching a World War I combat system, Clive recounted how his Thai boxing improved after he started training in Silat, while his Kali weapons techniques were improved by his boxing body mechanics. The message was that practising different arts with different focuses would help to improve your core skill set. Most of us are familiar with the idea of 'transferable skills', but what Clive was suggesting was something more subtle: 'parallel skills'. So far, so brutal. But what, you ask, does this have to do with woodworking? Well, the more I thought about this idea of parallel skills, the more I saw something that could apply to both martial arts and woodwork.

So let me offer a suggestion and a challenge. To improve as woodworkers, we need to stop building what we ordinarily build and try something different.

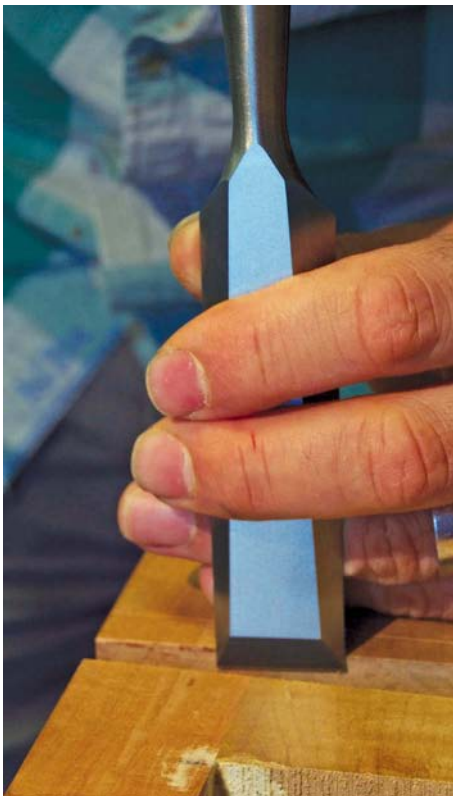
Building parallel skills

I am not suggesting that we do not need to be proficient at building whatever our primary focus is; far from it. The foundation for any

woodworking must be an understanding of the techniques to build your main projects. But after those fundamentals are understood, try something new. Because when you come back to your main area of focus, you may find that your skill set is much improved.

Cutting a tight dovetail uses a number of core skills

Here is why I think it works. The majority of woodworking operations are not skills by themselves but instead draw upon a range of core skills. When we talk about dovetailing, what we are actually referring to is accurate marking out, sawing to a line and chiselling to achieve a flat baseline. Practising those skills will improve your dovetailing, and although there are practice exercises you can try, building a project is much more satisfying.



Paring the joint for the slipper heel, on an acoustic guitar neck in steamed pear

Focusing on parallel skills is an approach I have found to yield results. My focus is on lutherie, particularly acoustic guitars, although as I wrote about in issue 224, I have recently branched out into cabinetmaking with my Anarchist's Tool Chest. And after just one project in a different field, my skill set improved. When I build acoustic guitars I attach the neck to the body using the slipper heel – or 'Spanish heel' – method, in which two slots are cut in the neck, into which the sides are wedged. This requires accurate sawing followed by precise paring to the baseline, and I covered this in more detail on my blog – www.overthewireless.wordpress.com – in May. Before I went on the Anarchist's Tool Chest course in July, I cut the slipper heel for my current acoustic guitar build. And because it is a joint I have done a number of times, I made a good job of it. After the course finished however, I did the final tuning of this joint, and I was amazed to see that my chisel work and sawing had improved since I last cut the joint. What had caused this noticeable improvement? Cutting dovetails for five solid days on the course.

Gluing an acoustic guitar in a solera. Once the glue is dry the mahogany wedges will be trimmed to length and the back glued on

Problem solving

This is the second major benefit of trying a new area of woodwork. Think about it: whether you build Danish minimalist tables, lutes or Shaker grandfather clocks, we all use wood. And unless you build something novel and cutting edge, most problems have been encountered before by others.

Dyed sycamore veneer between a birds-eye maple neck and fretboard, on an electric guitar build

Here's an example: one of the things that often crops up on guitar building forums is people getting in a tangle when using thin veneers, either as an accent line between other timbers, or as a face veneer on electric guitars. Ultimately they devise complex and ingenious solutions to do this. But if these guitar builders thought like an 18th-century ebéniste, then they might find that a simple veneer hammer and press would be easier, and also pose less risk to the household Dyson than a home-brew vacuum mould. Similarly, there are lutherie methods that translate to other fields of woodworking. When gluing up braces to acoustic guitar soundboards, I use a 'go bar' deck – essentially bending thin strips of ash to fit into a space shorter than they are. The downward pressure of the go bars provides precise force, and is useful for any number of clamping tasks. I once read a woodwork book where the author explained how he parked his van on top of his work to get the necessary pressure, and although this apparently worked very well, it lacks the elegance of a go bar deck.

Using go bars to glue braces to an acoustic guitar soundboard

The challenge

In throwing down this challenge I am not trying to tell anyone how to go about their craft. But I hope I have shown there are benefits to breaking out of our comfort zones and trying something new. And I am happy to put my money where my mouth is. Although lutherie will continue to be my focus, my project list for 2015 includes building a trunk and maybe a pair of Roorkee chairs. And I have no doubt that my guitars will be all the better for it. So, what will you do that is different in 2015? F&C

scott+sargeant

the machinery experts

35000 ft² of new & used machinery on display

iTECH BS600 Bandsaw 400v 3 phase

£1620 inc VAT

The new BS600 bandsaw is an exciting new addition to the range. A professional quality bandsaw at a great price. The BS600 has cast iron wheels with electro-mechanical braking giving easy smooth cutting with safety.

Ideal for all type of wood, and composites, it can also take up to a 35mm blade for the occaisional rip cut. Electrically interlocked doors - exceptional value for money.

Technical Specification:

wheel diameter	600mm
throat	580mm
depth under guide	370mm
Blade width	10-35mm
motor power	2.2 kw 3.0 hp
table table size	700 x 608 mm
table tilts	0-20 degrees
blade length	4470 mm
dust outlet	100mm
Shipping	230x860x2080mm

iTECH C300 Universal Woodworker 220v 1 phase

£4194 inc VAT

The new C300 Universal Machine is the latest addition to the iTECH family. It has been specifically designed for the small professional workshop or home user. This industrially rated machine features a table saw and sliding table, planer, thicknesser and spindle moulder unit. The cast iron construction, accurate cross cut fence and superb build quality put this machine in a class of its own.

Features:

Panel saw sliding beam
Scoring saw for veneered boards
Accurate cross cut fence with flipstops
Cast iron tables
Sturdy swinging arm squaring frame
3 x 2.0 hp class 1 motors

Technical specification:

PLANER:	
Max planing capacity:	300 x 220mm
Length of tables:	1500mm
Cutter Block Dia :	70mm
Fence angle tilt:	90° 45°
No of knives:	3 300x20x3
Max Stock removal	4 mm
Feed rate:	7 m/min
CIRCULAR SAW:	
Blade tilt:	0° - 45°
Blade diameter:	250mm
Scoring Blade	90 mm
Max blade height 90°:	80mm
Sliding carriage:	1250 x 315 mm
SPINDLE MOULDER:	
Shaft Stroke	115 mm
Shaft Dia	30 mm
Speeds	2000/3100/4400/7000 rpm
Max dia of tool	160mm

iTECH DC001S Dust Extractor

£286 inc VAT

iTECH DC001S 1 Bag Dust Extractor is a ruggedly extractor is designed for small workshops. The industrial construction and quality finish sets it apart from others.

It is big enough to handle a 310mm planer or many other workshop machines. The cyclone s filtration system works by separating the waste from the airflow, diverting the waste into the collecting bag. The base is fitted with castors for mobility around the workshop. The 125 mm inlet is fitted with a twin branch 100mm adaptor, allowing connection to either one or two machines. Supplied complete with 1x 3m hose.

Technical Specification:

Fan diameter	300mm
Inlet diameter	125
Inlet holes	2 x 100mm
Air capacity	1490cfm
Bag diameter	500mm
Packing size	920x580x580cm
Motor power	2hp
voltage	240v

iTECH W0501 Oscillating Edge Sander

£1199 inc VAT

The iTECH 501 Oscillating Edge Sander can be used in for getting a superb edge finish. the oscillation reduces marks and scratches free and helps to prolong belt life. The cast iron table combines with a simple rise and fall handle plus an angle adjustment allowing you to use the full area of sanding paper. Mitre fence and slot also included.

A rubber coated drive drum provides positive grip and maximum power transfer. The belt tensioning and tracking operations are a simple and quick process. The sturdy cabinet base includes a storage area for abrasives. The auxiliary table with sanding drum for internal or external shaped work

Technical Specification:

Motor power	2hp
Belt dimensions	2473 x 152mm
Belt speed	1033m/min
Main table dimensions	905 x 305mm
Auxiliary table dimensions	290 x 259mm
Platen tilting	0 - 90 degrees

... THE LARGEST SHOWROOM OF PROFESSIONAL WOODWORKING MACHINERY IN THE SOUTH

Scott & Sargeant has the largest showroom of new & used machines, spare parts & accessories. Our showroom is packed with machinery, tooling, spares and accessories for the small workshop up to the largest manufacturer.

SEDGWICK WOODWORKING MACHINERY
centauro
ITALPRESSE
Mini Max
scm
whitehill
OMAS
MARTIN
STROMAB

scott+sargeant
Blatchford Rd, Horsham
Sussex RH13 5QR

Order Online

sales@scosarg.co.uk
F 01 403 274444
T 01 403 273000

scosarg.co.uk

SM255T SPINDLE MOULDER

Powerful, innovative, and efficient: our flagship Spindle Moulder includes a range of features designed to maximize performance, and minimize set-up times.

▷ **Reverse Tilt (overall adjustment plus 5 degrees to minus 45 degrees)**

Unlike the majority of manufacturers, the SM255t is designed with a backward tilting spindle. Working from underneath the stock makes for safer working, without restriction on the size of stock being machined, and without obstruction to the pressure guards or power feed. Wood chips are directed into the exhaust outlet in the machine base.

▷ **'True Vertical' Rise and Fall**

The SM255t's unique 'true vertical' rise and fall system allows for vertical adjustment of the spindle independent of the tilting mechanism. The angled tool when adjusted up or down thereby retains its position relative to the fence assembly.

- ▷ **Digital Position Indicators to both movements**
- ▷ **Cast iron fence assembly** with independently adjustable precision-ground fence plates and movement indicators.
- ▷ **Interchangeable Loose Top Spindle**
- ▷ **4.0Kw High-Efficiency Braked Motor**

For further details of this & our complete range of woodworking machinery please visit www.sedgwick-machinery.co.uk, or contact us at:

M. Sedgwick & Co. Limited, Stanningley Field Close, Leeds LS13 4QG

E: sedgwickmachinery@btinternet.com Tel. 0113 257 0637 Fax. 0113 239 3412

PHOTOGRAPHS BY JIM HOOKER

Wall lights

Jim Hooker explains how to make these simple but stylish ash wall lights

Wall lights, nearly every home has them and yet buying them can be a nightmare. Those at anything like a reasonable price must be found in retail sheds or the big chains. And what do you find there? A sea of sparkly stainless steel, chrome plate or aluminium and a corner of cottagey chintz, all fake candles and tassels, left over from the past. That's OK if it's what you're after but what if you want none of this, you like wood, elegantly understated simplicity and functionality? Well, you will certainly struggle to find it in the shops.

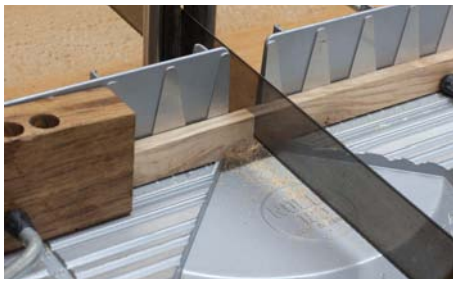
I had been facing or, as my wife would probably have it, trying to ignore this problem for several years but the solution is obvious: you design and make them yourself, of course. It is undeniable that the acquisition of a shiny new Festool Domino jointer was an incentive to bite this particular bullet. Domino aside, there was another happy coincidence. I had bought a European ash (*Fraxinus excelsior*) butt for another project and the centre boards were a beautiful olive colour, but much of them was a mass of splits and checks; firewood for most people, but capable of yielding more than enough short lengths of the size I would need for my wall lights.

I wanted something with the simplicity of the traditional Japanese shoji screen, minimal obstruction of the light source and the smallest and plainest frame sections I could manage, in keeping with the minimalist objective. Another requirement was that they should not project too far from the wall – something that is much easier to achieve with modern low heat emission, energy saving bulbs. A little playing around with proportions resulted in this simple, low profile rectangular shape. Even though I wanted it to be slim front to back, I liked the idea of the frames appearing to float clear of the wall. This has the advantage that if your walls are less than 100% flat, it will not be glaringly obvious from light leaking around a frame that is supposed to be completely flush to the wall.

Frame construction

There are a lot of small components to be cut to length in these frames but if, like me, you don't have a powered mitre saw, the good old-fashioned Nobex type saw makes short work of them and leaves a good finish.

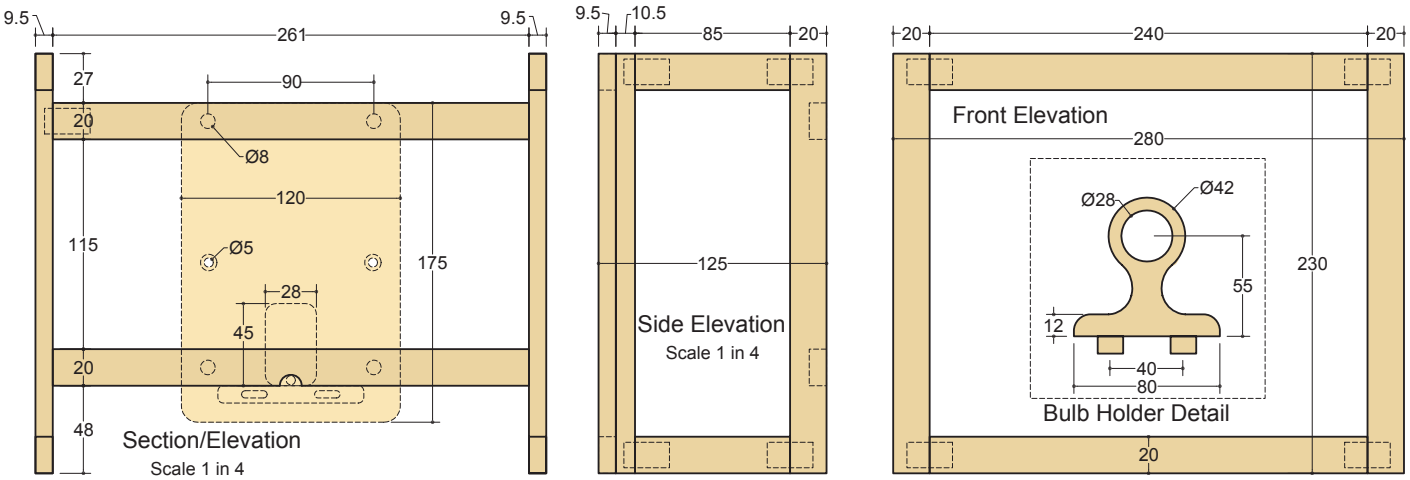
Traditional mortises and tenons could be used to joint these frames but 16 mortises and 16 tenons times the number of wall lights needed didn't appeal. So, shiny new Domino jointer it was. Most of the ash frame

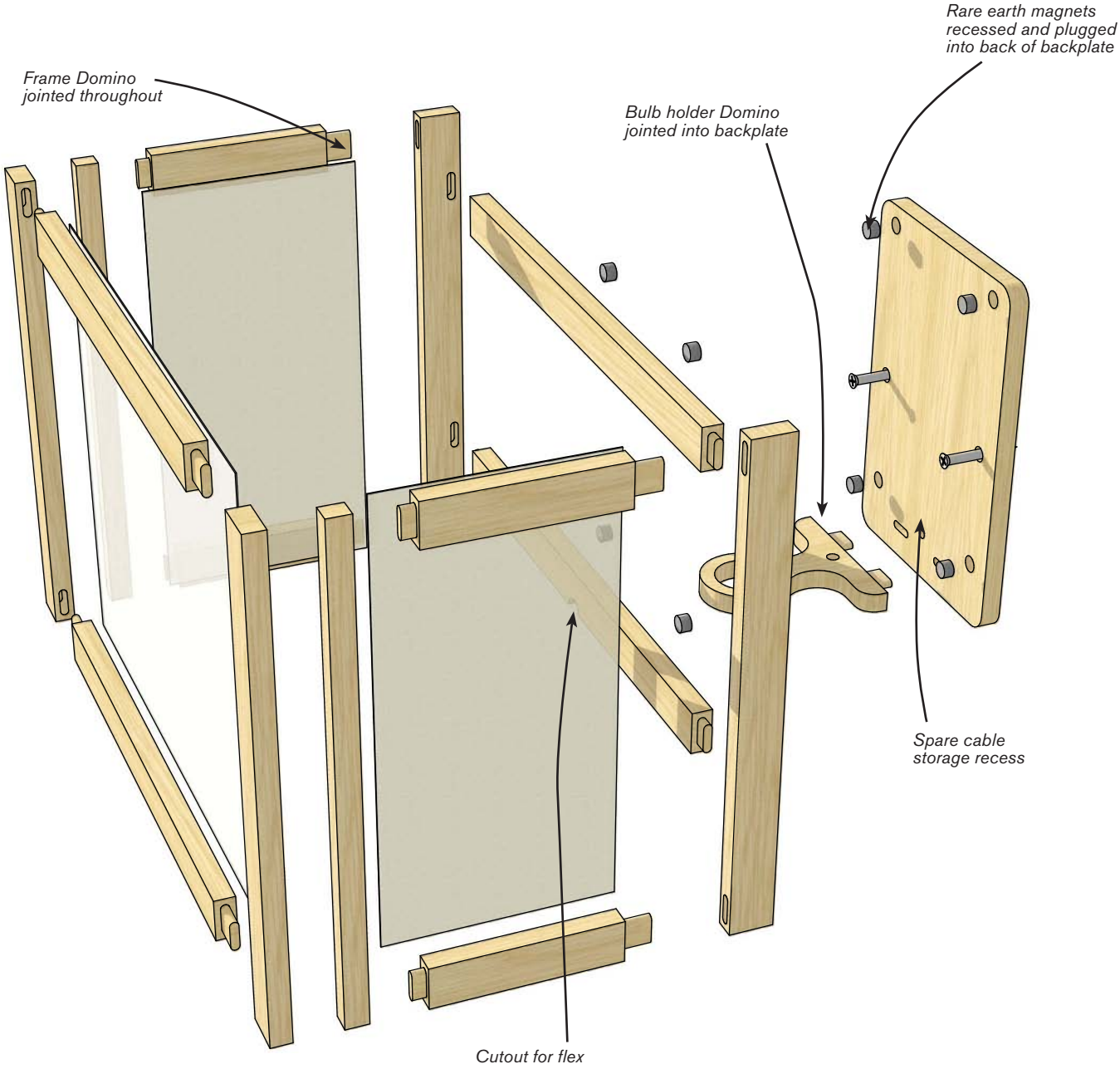


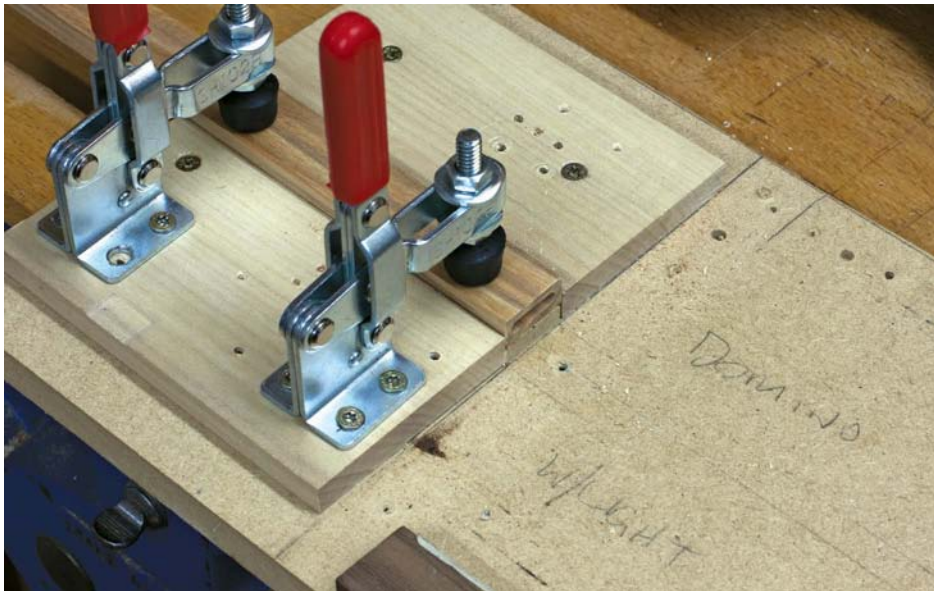
1 My Nobex mitre saw with clamped-on stops made a good clean job of cutting to length

➤

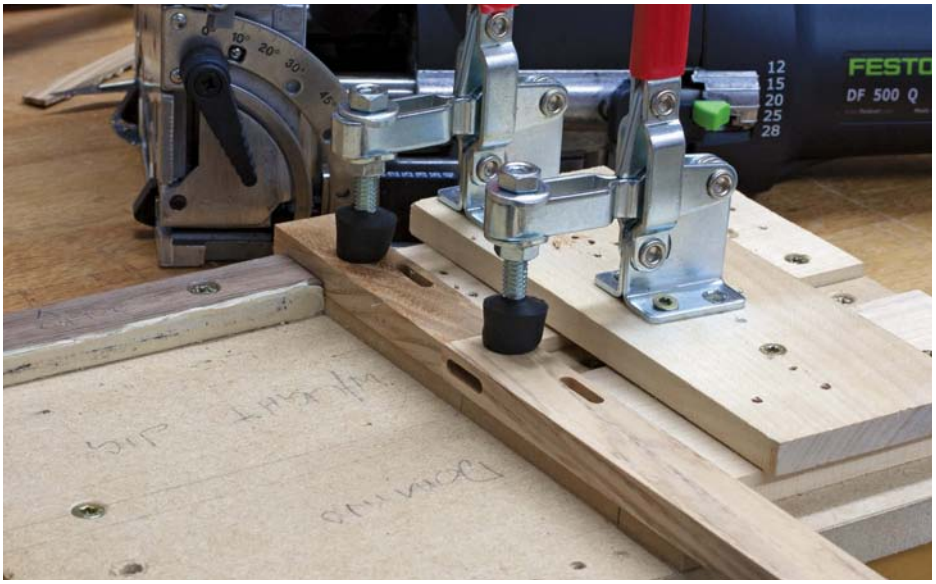
In detail


9.5
261
9.5
27
90
20
Ø8
120
115
Ø5
175
28
45
20
48
Section/Elevation
Scale 1 in 4
9.5
10.5
85
20
125
Side Elevation
Scale 1 in 4
20
240
20
Front Elevation
280
Ø28
Ø42
55
230
12
40
80
Bulb Holder Detail
20

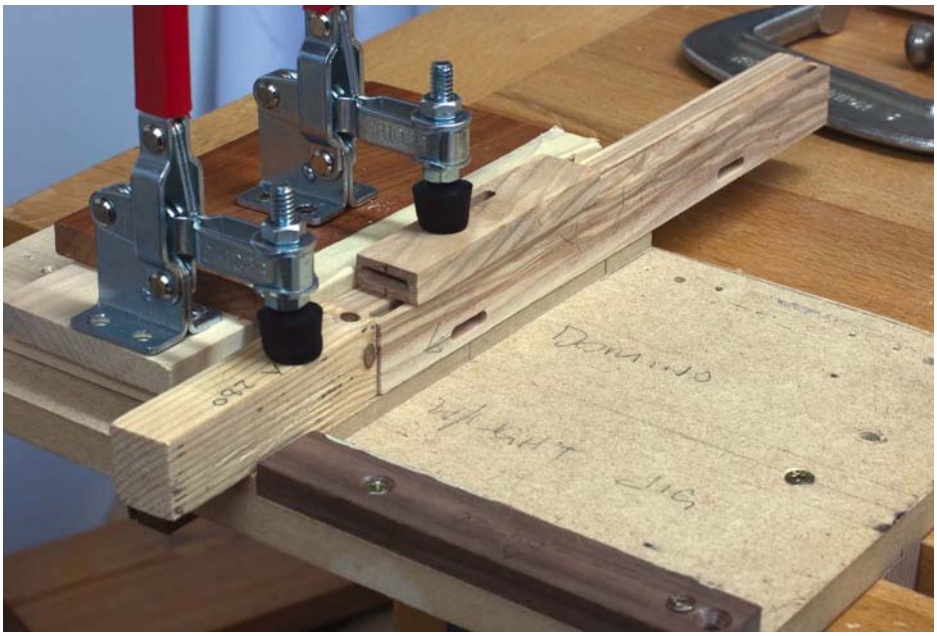

Rare earth magnets recessed and plugged into back of backplate
Frame Domino jointed throughout
Bulb holder Domino jointed into backplate
Spare cable storage recess
Cutout for flex



2 The Domino jointer locates against the front and side fences while the central channel for the workpiece is the right depth to ensure the mortise is placed centrally



3 Clamped-on stops position the cross grain mortises. Left and right should be done separately so that the cut is always referenced off the face side and edge



4 Yet more moving of stops to cut the mortises for the back rails in the rear posts

sections are just 20 × 9.5mm, which is about as small as you can go using the smallest, 14 × 4mm Domino dowel. There is no doubt that Domino jointing is by far the easiest way to joint these frames but even so, it is not without its challenges. Festool make a nifty little gadget – called the Trim Stop for narrow stock – for forming mortises into the ends of frame components. The trouble is, these frame sections are quite a bit smaller than the minimum size the Trim Stop can handle and holding these small components securely while forming the end grain mortises is also a tricky task.

The answer is a shop-made jig designed to accommodate and register the Domino base and locate and clamp the workpiece securely. With rearranged toggle clamps and some clamped-on stops, the jig is also used for cutting the cross grain mortises to complete the joints.

The aim of this jigged approach to Domino jointing is that the frames should go together very accurately so that only the minimum of surface cleanup is required after assembly. To this end it is a good idea to machine all stock at the same time, for maximum dimensional consistency. Even then, unless your jig is absolutely accurate in placing the Domino mortise dead central in the stock, it is advisable to always work with the face side down, on the reference face of the jig. The downside of this is that one stop will not suffice for both right and left cross grain mortises because that would involve flipping the workpiece over and therefore away from the face side or edge. Having to move the toggle clamps and stops places a premium on a well-thought-out and organised jointing process. This is fine for a small number of frames, but if I was making them in larger numbers I would invest time in making a separate jig with built-in stops for cutting the cross grain mortises.

The odd men out in the frames are the front vertical posts of the side frames which are only 10.5mm wide so that, when butt jointed to the front frame, the overall front corner width of the assembled frame is the same whether it is viewed from the front or side.

5 The narrow front posts of the end frames are glued to the front frame posts to form an 'L' section corner post which is the same overall width on both outer faces

Backplate and bulb holder plate

Both of these components are made from the same 9.5mm ash stock as the frames, with the backplate being simply cut to size and the corners radiused. The back and bulb holder plates are joined with two Dominos. The mortises in the bulb holder plate are best cut before shaping because it is a lot easier to hold while it is still rectangular. The same goes for the 28mm hole for the bulb holder, which is cut with a Forstner bit.

To shape the bulb holder plates you need an MDF or ply template. Make this quite a bit longer than the actual component because the extra length will give you something to grip while shaping and keep your fingers well away from cutting edges. With the template fixed to the blank with double-sided tape, it can then be bandsawn to within about 1mm of the template and the remaining waste removed on the router table using a bearing guided trimming cutter. The curves are really quite tight and with conventional cutting against the direction of cutter rotation, some chatter can easily occur when the cutter bites into the open ash end grain, to the detriment of finish. I found that, with care, cutting with the cutter rotation – sometimes called climb cutting – was possible on these sections of the curves and gave a much better finish. The danger with this technique is that the cutter may grab the work and send it flying across the workshop; worse still, your fingers may get pulled into the cutter. But it can be done safely if the right precautions are taken – bandsaw as close to the line as possible so that only the absolute minimum of material remains to be removed, arrange an overhead clear acrylic guard so that fingers cannot possibly get near the cutter, but you can still see what you are doing, grip the work very firmly and feed it slowly into the cutter. If you don't feel comfortable with this method, do not attempt it, as cleaning up can be done with a small drum sander in a pillar drill.

One slightly problematic aspect of the bulb holder plate design was making the cable unobtrusive. This is easier if the cable exits from the side of the bulb holder rather than the bottom, so the cable points towards the backplate where it needs to be heading, rather than downwards into view. But all the side exit bulb holders I could find were quite tall and, for the light source to be reasonably central in the frame and the bulb holder hidden from view at normal viewing angles, a short holder is essential. In the end, I modified a standard brass fitting and plugged the bottom exit with a blind grommet. The cable could then exit at the back and be passed through an angled hole in the plate and then, via a hole just above the holder plate, through the backplate where there is a recess, formed with a Forstner bit, into which spare flex can be curled when the assembly is screwed to the wall.

Having sorted the design for the frames and back/bulb holder plates there was the question of how to marry the two together. The traditional shade mounted ring fitted over the bulb holder was not a runner because even with these light frame

6 Cutting the mortises in the lamp holder plate – best done before shaping. It's easy to create a simple jig by clamping fence pieces to the bench. The Domino jointer runs against the left-hand fence for one mortise and the right-hand fence for the other. A piece of MDF acts as a front fence and raises the workpiece to the correct height

7 The lamp holder plate ready for shaping

8 An over-length template keeps fingers well away from the blade. If, like me, you don't have a narrow blade that will make curves this tight, it's easy to make several straight cuts into the curve and then nibble away the remaining waste

9 Cutting with rather than against the rotation of the cutter can be scary but can give a much better finish. A firm grip and a clear acrylic guard set close to the work enables it to be done safely

sections, the shades would be too heavy for the lightweight bulb holder plate, not to mention the faff and difficulty of unscrewing retaining rings to remove such a slim shade. The solution proved to be to position the rear bars of the frame so that the lower one rests on the back of the bulb holder plate with the upper one spanning the top of the backplate. The whole thing could then be held in place with rare earth magnets recessed into the back rails and in corresponding positions in the backplate. By resting the bottom rail on the back of the bulb holder plate most of the weight of the shade is taken there, so the main function of the magnets is to prevent the shade from tipping forward or being accidentally dislodged. It works a treat, holding the shade very securely, but bulb changing is simplicity itself – just lift off the shade, remove and replace the bulb and slide the shade back on.

10 The completed bulb holder plates. The narrow sections minimise light obstruction

11 A section of the threaded flange at the bottom of the bulb holder is removed so the cable can exit from the side

12 A blind grommet finishes things off neatly and as a result, the cable disappears unobtrusively through the bulb holder plate

13 The magnets need to be recessed as far as possible into the backplate; you don't have to plug the recesses after fitting the magnets but it makes a neater job. This is an early plate with three magnets but I subsequently fitted four for a firmer grip between frame and backplate

14 Magnets are glued using CA adhesive into and flush with the back of the frame cross rails

15 Fitting shade parchment is easy with 6mm-wide double-sided tape and…

16 …it lies completely flat and has excellent diffusion and light transmission properties

Finishing and shade covering

When it comes to finishing, the great thing about wall lights is that they get very little handling and almost no wear and tear, so a quick, easy, beautiful but, by today's standards, relatively fragile finish is all you need. So shellac is perfect for the job. Three or four thin coats can be wiped on with a cloth in an hour or so and then cut back and burnished to whatever level of sheen suits your taste. Try to attain this by varying your method. You can increase the level of sheen with wax but the effect is relatively transient and, quite apart from the risk of ruining your shade covering, who wants to keep waxing their wall lights? Cutting back with P400 grit abrasive, followed by '0000' grade wire wool and a buff with a soft cloth gives a nice subtle satin sheen – my choice. If you want shinier you can go up the grits to P1,000 or higher and finish off with burnishing cream or a car finish burnishing product such as T-cut.

There are plenty of options to choose from when it comes to shade covering. The obvious choice for a Japanese-influenced design such as this is traditional Japanese shoji paper but, after quite a bit of research, I opted for lampshade parchment for its high light transmission and diffusion, robustness and ease of handling. Lampshade parchment is a laminate of thin layers of plastic film and paper and is available in a variety of colour shades and textures. It is very easy to cut and fix with 6mm-wide double-sided tape and lies completely flat. These minimalist but practical wall lights suit uncluttered modern interiors and cost very little to make. F&C

Suppliers

Lampshade parchment: *Albioncourt Ltd.*
Web: www.albioncourt.co.uk

Bulb holders: *Lamps and Lights Ltd.*
Web: www.lampsandlights.co.uk

Rare earth magnets: *Axminster Tools & Machinery*
Web: www.axminster.co.uk

Panasonic

NEW

LIMITED EDITION
CARBON BLACK
SPECIAL PACKAGES

3 YEAR WARRANTY Panasonic

Li-ion S 4.2Ah

35 YEARS POWER TOOLS

LIMITED EDITION MODELS WITH 3RD BATTERY FREE! *

* Offer applies to selected models only whilst stocks last. Please check website for full details.

www.panasonic-powertools.eu

Li-ion S 4.2Ah 18V

3RD BATTERY FREE! *

The insatiable in full pursuit

John Adamson reports from the recent David Stanley Auction and tells us about some notable lots that went under the hammer

Every year since the early 1980s, David Stanley Auctions has been holding at least four general and two international tool sales. Thanks to the industry of the Stanleys and their team, some 6,000 lots change hands annually at prices ranging from under £10 to several thousand pounds. The 64th international auction held on 27 September in Leicestershire kept up the momentum. Collectors as well as craftsmen could be seen milling round the dealers' stalls and bidding in the auction-room: there were new faces as well as old, all tool enthusiasts to a man. Another 954 lots were on offer with 178 lots selling to live bids on the internet and 32 lots reaching £1,000 or more. There was clearly no slackening in demand for old hand tools.

Norris gems

It was Norris – that aristocrat among British plane-makers – who stole the show with the top four prices realised. A cluster of Norris planes came right at the end of the sale, like a *deus ex machina*, in a strategic reversal of precedence. The highest selling lot was a superb, almost pristine Norris A28 gun-metal chariot plane with patent pin-and-hole-adjustment mechanism for the iron – lot 947 – from the Geoff Entwistle collection, which fetched £9,200 (including buyer's premium of 15%), going to an Essex bidder in the room. An absentee bidder from the same county was able to acquire for £7,130 a Norris No.11 mitre plane – lot 929; at only 8in long, it is one of the shortest known of this model. The Norris A15 smoother – lot 931 – with patent adjuster brought £5,750, going to another absentee bidder, this time from Hong Kong. Almost the last item in the auction, the Norris No.31 thumb plane – lot 952 – also from the Geoff Entwistle collection, sold for £5,060 to a Surrey bidder in the room.

£9,200

PHOTOGRAPH BY JOHN JAMES. COURTESY OF DAVID STANLEY AUCTIONS

Lot 947. This little-used steel-soled gun-metal 4in Norris A28 chariot plane with ebony wedge and full original 1½in Norris iron brought the highest bid of the sale

£7,130

PHOTOGRAPH BY JOHN JAMES. COURTESY OF DAVID STANLEY AUCTIONS

Lot 929. The No.11 mitre plane was featured in Norris's catalogue published around 1908. At 8in in length this is the shortest example known

£5,750

PHOTOGRAPH BY JOHN JAMES. COURTESY OF DAVID STANLEY AUCTIONS

Lot 931, this closed-handle A15 smoothing plane in gun-metal with a steel sole has the Norris adjuster patented in 1913

£5,060

PHOTOGRAPH BY JOHN JAMES. COURTESY OF DAVID STANLEY AUCTIONS

Lot 952. The No.31 thumb plane in iron, with boat-stern heel and cheese-head screw at the heel was offered in Norris's pre-1909 and 1914 catalogues with lever cap and screw and no front bun. By the 1928 catalogue a steel-soled gun-metal version was offered as here but featuring a bun

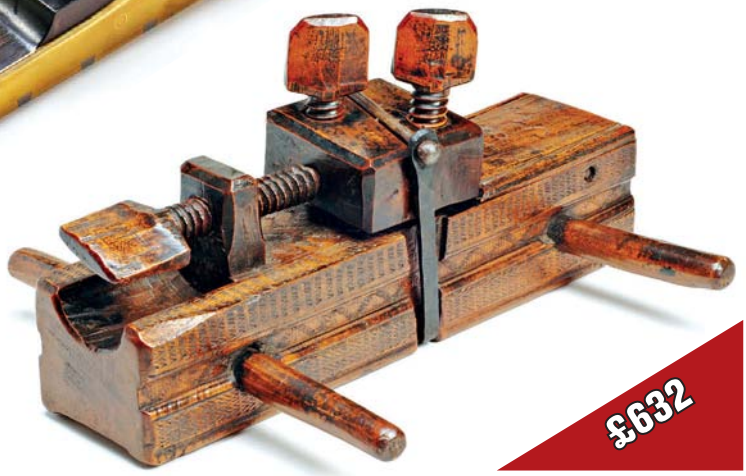
of the collectable

Treasured tools

Given the scarcity of these tools, it seems unlikely that any of them will find their way back onto the workbench; they will almost certainly be hoarded or proudly put on private display. Sometimes the same fate awaits the output of contemporary makers of classic planes as represented in this sale by Bill Carter's magnificent 25¼in dovetailed brass jointer – lot 288. Highly treasured by David Russell, the plane went under the hammer for £2,875 to a postal bidder from Yorkshire and may well be showcased again. On the other hand, the spelk plane – lot 672 – selling for £632 to an American buyer in the room, seemed a sure candidate for a cabinet of curiosities.

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Lot 288. Bill Carter's brass Norris-style A1 jointer dates from the late 1980s and is stamped 'CARTER' in zigzag border on the lever cap, in plane-makers' 18th-century fashion



PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Lot 672. This wonderful contraption from David Russell's collection was designed to make spelks or long pliable strips of wood in various thicknesses for baskets, chairs, fences and more. The iron was often held, as here, by a 'stirrup' system comprising square-section arms and wooden thumbscrews. A lateral thumbscrew adjusts the angle of the cutter and thus the thickness of the spelk, which passes up the escapement and out of the rear

Chisels & braces

A set of 24 carving chisels – lot 102 – made by Samuel J. Addis of Southwark, said to have been exhibited in the North Gallery at the Great Exhibition of 1851, fetched £2,875, going to a London collector. Still in their glazed showcase, they may never have been used, nor are they likely ever to be. Samuel's brother, J.B. Addis, who won a prize medal for carving tools in the class of Cutlery and Edge Tools at the Great Exhibition, took over the firm on Samuel's death, later moving manufacture to Sheffield.

Another fine piece served as a reminder of the importance of Sheffield as a centre for tool-making and innovative tool design. This was the magnificent Thomas Pilkington brace – lot 797 – formerly in David Russell's collection, knocked down at £1,092 to an Essex buyer in the room. Italian elegance came to the fore when a pair of dividers of museum quality (lot 418, illustrated on page 60), also from the David Russell collection, went to a postal bidder from Co. Cork for £2,415. The Pilkington brace will probably not be used, but I relish the thought of those lovely dividers striding across a piece of work in progress.

PHOTOGRAPH BY JOHN JAMES, COURTESY OF DAVID STANLEY AUCTIONS

Lot 102. This showcase featuring a set of 24 carving chisels made by Samuel J. Addis of Southwark hung for many years in the Sheffield boardroom of J.B. Addis, Samuel's brother

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Lot 797. Thomas Pilkington's brace in beech, ebony and brass dates from the period 1864–72 after his partnership with Charles Pilkington had been dissolved. With its pad secured by screws to the lower arm rather than being an integral part of the lower arm frame, this brace lies at a transitional stage between plated and fully framed braces

Holtzapffel & Co.

When the gavel came down at £195 for a Holtzapffel & Co. plough plane – lot 910 – the Cheshire buyer in the room must have worn a lasting grin, for he had acquired a fine, little-used, working tool by one of the greatest British tool-makers – and for a song. Here was a well-wrought tool, like the Holtzapffel side fillister, lot 908, of shared provenance, that was not just a joy to behold, but waiting to be brought back into the workshop.

Moulding planes of the 18th century by well-known makers were available in profusion for small outlay. Steve Peters, owner of Bespoke Furniture in Cumbria, attending the auction for the first time, expressed delight at the opportunity of being able to buy more moulders for use at his bench. "If I can put a decorative edge or trim on my furniture using one of my 18th-century moulders, it's fantastic," he said. "I just love working with them."

So among the auction-goers there really does not seem to be a clear line of demarcation between collectors and users of antique tools. We simply have to admit it: old tools are still fascinating and whether we want to contemplate their history and design or put them to use they go on arousing our acquisitive instincts. *F&C*

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Lot 910. Holtzapffel & Co.'s fine workmanship and attention to detail are evident on this boxwood wedge-arm plough plane

Maker's mark stamped on the toe of the plough plane

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Lot 908. The fillister "is intended to plane both with and across the grain, as in planing a rebate around the margin of a panel," wrote Charles Holtzapffel in his book *Turning & Mechanical Manipulation*. This 9⅝in example in beech and boxwood with brass screw stop bears the mark of Holtzapffel & Co., 64 Charing Cross, London

PHOTOGRAPH BY JAMES AUSTIN, COURTESY OF DAVID R. RUSSELL

Lot 418. The pierced head on these 16th- or 17th-century Italian dividers is sprung and the lateral thumbscrew adjusts the span from ⅜ to 2⅛in

PHOTOGRAPH COURTESY OF NEW ENGLISH WORKSHOP

This Anarchist's Tool Chest was built by Chris Schwarz and will be offered for sale at the next auction, on 28 March, 2015. It will be packed with top quality tools, some of which are unique, with the entire proceeds of the sale going to the furniture-making department at Warwickshire College, where the chest was made. The college hosted an event in July last year in partnership with New English Workshop to promote the craft of furniture making. Tool-makers and vendors around the world supported the project by donating tools to go into the chest. The contents of the chest alone have a value of around £5,000

The next international David Stanley Auction will be held on Saturday 28 March, 2015 at the Hermitage Leisure Centre, Whitwick, Leicestershire LE67 5EU. For more information, see www.davidstanley.com.

More information about David Russell's collection is in his book Antique Woodworking Tools: Their Craftsmanship from the Earliest Times to the Twentieth Century. *For more information, see www.antiquewoodworkingtools.co.uk*

TOMACO

THE TOOL MARKETING COMPANY

DISTRIBUTORS OF QUALITY PRODUCTS

SHARP EDGE

Chisel and plane iron sharpener - take anywhere and sharpen in seconds.

narex®

Quality range of woodworking hand tools made in Europe.

COLT® PROFESSIONAL TOOLS

A quality range of professional Drill bits and accessories from Germany.

MORAKNIV®

Range of knives for trade and carving. Swedish quality, swedish steel. Made exclusively in Mora Sweden.

VETO PRO PAC® TOOL BAGS THAT WORK

Range of the toughest tool bags with a 5 year downtime warranty.

CMT ORANGE TOOLS™

Router cutters, spindle moulding cutters and saw blades from Italy.

FOR YOUR NEAREST STOCKIST VISIT

www.tomaco.co.uk

NEXT MONTH in

Furniture &cabinetmaking

ISSUE 228
ON SALE
22 JANUARY

FINISHING TECH

Still not blending your own wax? A guide to how and why

PHOTOGRAPH BY CHRISTOPHER JONES

Project
David Barron's tool chest – MK II

New series
Japanese joints for furniture

Profile
Would the real Cedar Surfer please step forward

New series
The Apprentice's Notebook – from Waters & Acland

Construction tech
Buying and installing rare earth magnets

Woodworks 2014 report

Brian Greene reports from the Woodworks 2014 show

PHOTOGRAPHS BY EDWARDO MIRANDA

Mark Harrell speaking at WoodWork 2014

On a beautiful late September weekend woodworkers from across Canada and the northeastern United States made a small Ontario town seem like the centre of the woodworking universe. Perth, Ontario, an hour south of Canada's national capital Ottawa, was the stage for Woodworks '14 and WoodObjects. The event was a project of the Ottawa Woodworkers Association, in conjunction with the Algonquin College Heritage Institute in Perth. Woodworks was everything you could want in a woodworking weekend. Approximately 200 people in a beautiful location, a great line up of internationally-known speakers, a unique emporium atmosphere of boutique tool makers and a stunning collection of inspiring furniture.

The British connection

Perth was founded in 1816 as a military settlement to defend against invasion by the United States. Concerns for the defence of Upper Canada arose during the War of 1812, which had revealed the vulnerability of the thin line of settlement along the St. Lawrence River between Montreal and Kingston. Perth was designated to direct people to an unsettled interior and was accomplished through British government sponsored military settlement and assisted immigration. Many of the first settlers were military veterans on half pay.

Situated between Ottawa and Kingston and with a population of around 6,000, Perth has retained its historical roots. It has a big vision of how life should be and its vibrant community spirit is set against a backdrop of beautiful heritage architecture and plenty of open natural spaces.

Algonquin College Heritage Woodworking Programme

The Algonquin College regional campus in Perth provided the organisers of Woodworks and WoodObjects with unparalleled access to its facilities and staff and tremendous help from a bevy of student volunteers. Everyone, including Dean Chris Hahn, was on deck for the weekend. Even a power failure within minutes of the start of the first talk on the first day by Christopher Schwarz didn't flap these folks!

The Perth Algonquin campus provides purpose designed and built learning environments for speciality trades, business and community and health studies. The big focus here is The Heritage Institute.

Algonquin's unique Heritage Carpentry and Joinery programme is aimed at students who are interested in the preservation, renovation and restoration of historical architecture in Canada. It also offers programmes in Construction Carpentry and Advanced Housing, as well as Heritage and Traditional Masonry.

Algonquin Heritage Institute – fantastic facilities

History of the event

This is the third official Woodworks event, but the first one to go national. The first two were one-day club events with local speakers and a modest furniture exhibit. Before that, folks would gather annually in a club member's garage for a day dedicated to all things to do with hand planes.

Since the demise of the annual woodworking show in Ottawa and the growth of events like Handworks 2013 – see *F&C* 208 – Woodworking in America and Fine Woodworking Live, there has always been a sense that the market needed a bigger event. The feeling was that if the Ottawa Woodworkers Association didn't do it, someone else would.

"Along the way we've had great advice from the organisers of past events and tremendous support from Lee Valley Tools, one of our main sponsors," said Woodworks conference chairman Vic Tesolin.

True to its roots, the goal of this event has been an informal atmosphere of friends gathered to learn and share experiences with one another about their passion for woodworking. The organisers are hoping to maintain that atmosphere by closely controlling growth.

"We don't want this event to get too big and lose the very thing that participants seem to enjoy most," said Vic. "We'd like to grow a little larger to make it more financially stable but, in the present location, probably not more than 175 attendees plus vendors and organising staff."

WoodObjects exhibition

A large part of the success of the weekend was that it was a very dynamic event. Alongside Woodworks the Conference and a well-attended tool emporium, was WoodObjects the exhibition with a juried display of 29 pieces by 17 makers. Jurors were none other than Garrett Hack of Vermont, Michael Fortune from Toronto and Ron Barter, owner of Rosewood Studio in Perth. Garrett and Ron were also presenters and were available all weekend to give the makers feedback on their pieces.

In past years WoodObjects has attracted some of Canada's finest woodworkers who exhibit work of the highest standards with an emphasis on original design, excellence in workmanship and diversity of approach. This version was no exception.

"We were really pleased to draw out so much of the furniture making talent we know exists in the region, providing them with an opportunity to show what they can do," said Karen McBride, who was a member of the Woodworks organising committee and headed up the WoodObjects programme. "The result was a stunning display of creativity and technical skill."

Courage, initiative and passion

Ron Barter, a furniture maker and owner of Rosewood Studio in Perth, as well as a WoodObjects juror, officially opened the WoodObjects exhibit at a well attended wine and cheese party in the school's library.

To the exhibitors he said: "This exhibit

Neil Cronk (far right) makes traditional tools from wood

Vic Tesolin (left) and Mark Harrell

Patrick Griffith (left) and Jacques Breau

Woodworks Presenters, from left to right: Christopher Schwarz, Ron Barter, Linda Manzer, Mark Harrell, Tom Fidgen and Garrett Hack

is a testament to and a celebration of your courage, initiative and passion… the courage to share with the public and your peers, to open yourself up to judgement and potential criticism… the initiative to actually make something and the passion it takes to create something to the very best of your ability. There will always be a kind of magic in this."

Selected vendors

The organisers of Woodworks '14 made a deliberate effort to focus on designers and makers of hand tools. Lee Valley Tools was a major sponsor of Woodworks and was there displaying their new line of custom planes. Lie-Nielsen Toolworks are always a favourite – the rivalry is always friendly! Emporium exhibitors included Scott Meek Woodworks, Barrett and Sons – planemakers, Neil Cronk of The Cronkwright Woodshop, Bad Axe Toolworks, KJP Hardwoods, Douglas S. Orr – Antique Tools and Rosewood Studio.

Presentations

In 'Finding your own Voice' Garrett Hack, long-time *Fine Woodworking* contributor and the author of *The Handplane Book* and *Classic Hand Tools*, encouraged people to try lots of possibilities and pick elements to form a design vocabulary of their own rather than merely copying others. He surveyed design ideas from recent furniture making history and showed us some of the ideas he uses in his work.

In his second talk Garrett spoke about making the building of furniture more efficient. Not surprising, he extolled the efficiencies of sharp, appropriate tools, of knowing where the transition is between machine work and hand work and of taking advantage of the possibilities afforded by hand tools. He stressed the importance of mock-ups of complex parts as a way to try ideas, testing how something works, to show a client or to practise a technique.

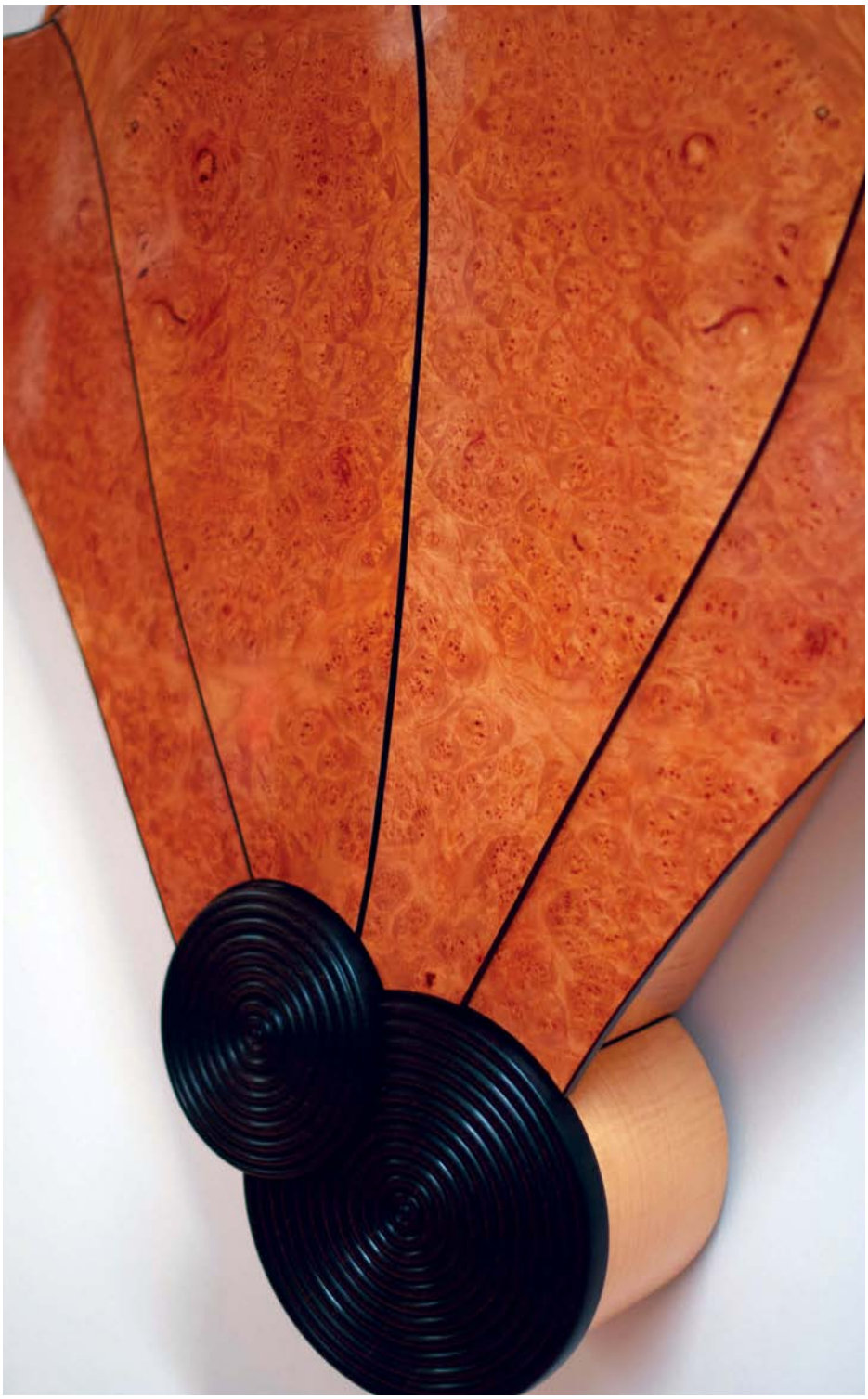
Linda Manzer, a world class builder of finely inlaid guitars for some of the best players in the world, showed some of the work she is famous for and spoke of the risks she has taken over the years that have set her work apart. Her advice was 'you have to go out on a limb sometimes because that's where the fruit is'.

Robin Lee, president of Lee Valley Tools and Veritas, stressed the important benefits of manual training not the least of which is forging self-confidence by creating and learning to problem solve. In spite of the role of the big box stores, he said he was glad to see 'a resurgence of small business manufacturing and tool making'. His view is that 'craft is not dead'. He's encouraged by what he sees as a return to quality, saying 'buying quality tools is more environmentally sensible anyway'. He said: "People are increasingly being engaged by the technological innovations creeping into woodworking. That's good. Anything that forms the next generation is good."

For Tom Fidgen, author of *The Unplugged Woodshop: Hand-Crafted Projects for the Home & Workshop* and *Made by Hand*, the key to success is recognising that the journey is more important than the destination. Tom builds his furniture strictly with hand tools. His other passion is helping other designer/makers enjoy the process of designing and making. He says: "Real success comes from how we choose to spend our time… it's about lifestyle and making sure we get enough sleep, eating well, drinking less and turning off the television. Everyone has the same 24 hours. We need to master our time, plan our days and find a good rhythm."

For Mark Harrell of Bad Axe Tools, it was standing room only for two sessions demystifying the traditional backsaw. He showed how to take it apart, clean it, sharpen it, re-tension it and put it back together as a finely tuned tool capable of precision work.

Woodworks drew consistently high praise from participants, exhibitors and presenters, saying: 'I'm already looking forward to coming back!' and 'content was excellent. Awesome scope from 'how to's' to 'why'. Very inspiring'. Woodworks '16 is already under discussion!



Karen McBride's cabinet was a favourite with the jurors

Contact details

Web: www.woodworksconference.com

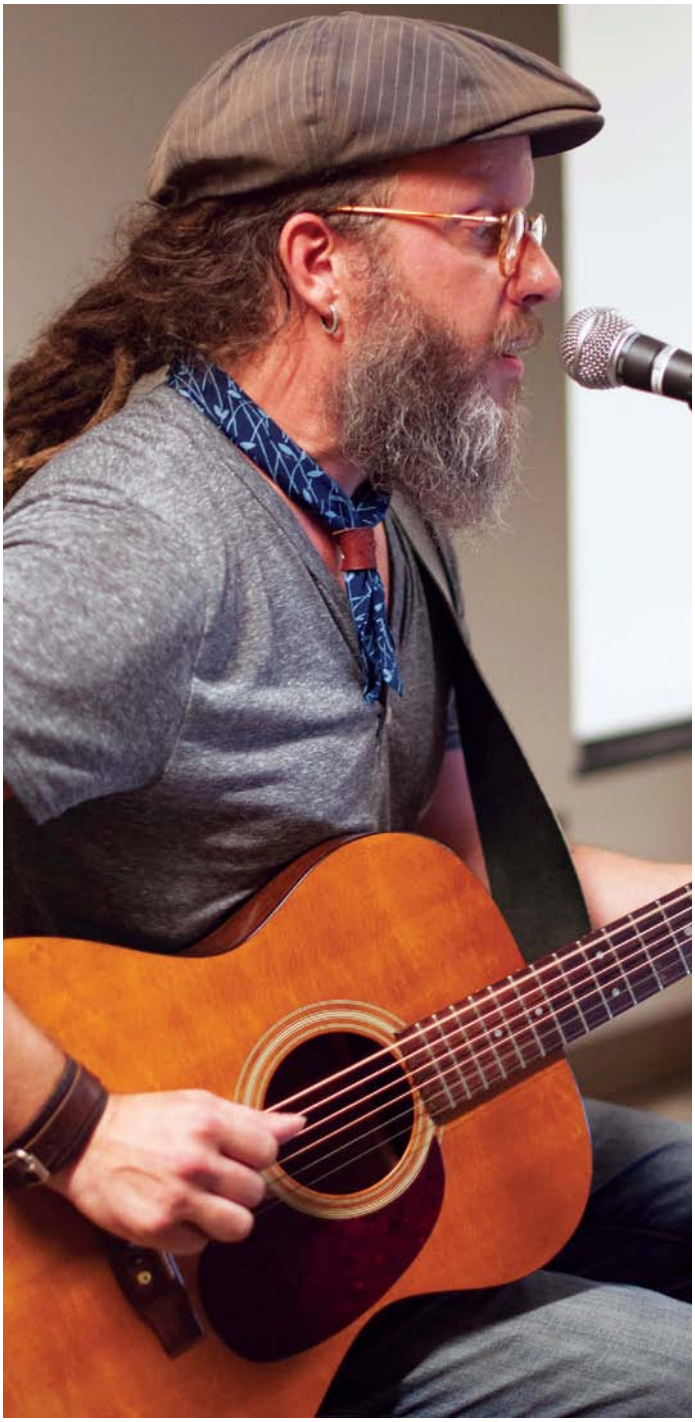
Judges Ron Barter and Garrett Hack

Tom Fidgen's five simple steps for increasing success

- *Know what the goal is. It should be clear, tangible and reachable*
- *Take small steps. Things don't happen by accident. Practice!*
- *Note the change. Know where you've been, where you are and where you're going. What gets measured gets managed*
- *There's safety in numbers. Put it out there, talk about it, hang out with others doing similar stuff*
- *Prepare the fix. Make it ready in case you need it*

Tom Fidgen has just launched a new membership-based website. Find out more here: www.anunpluggedlife.com F&C

Chris Hahn, Dean of Algonquin's Heritage Institute



Tom Fidgen warms up

TORMEK® T-4

Water Cooled Sharpening System

MADE IN SWEDEN

NEW!

ULTIMATE PRECISION SOLID ZINC HEAD

PATENT PENDING

- ✔ **All vital components integrated with the zinc top**
- ✔ **Precision improved by over 300%***
- ✔ **Customise your T-4 with the full range of Tormek jigs!**

Redefining precision for compact sharpening machines!

The motor and the main shaft are now both mounted in the zinc cast top, improving the rigidity of the machine.

Metal machine plate makes it a convenient place to store the Tormek AngleMaster, which has magnetic feet.

With the sleeves for the Universal Support now being cast in the zinc top, the precision has been improved significantly.

An integrated handle makes the machine easy to place and move when necessary.

** Compared to Tormek T-3*

More about the T-4: Visit **www.tormek.com** or call UK: BriMarc Tools Machinery 0333 240 6967, USA: Affinity Tool Works 1-800 586 7635

NEW FROM TOOLTEC

CLICK 'N CARVE

FROM 2D IMAGE TO 3D MODEL IN MINUTES

- Works with Wood, ABS, Foam, Modeling Wax, Styrenefoam, Epoxy Tooling Board
- Easy to use software
- Ideal for the commercial, professional, enthusiast and educational sectors.

All you need to do is CLICK-CONVERT-COMMAND-AND-CARVE...

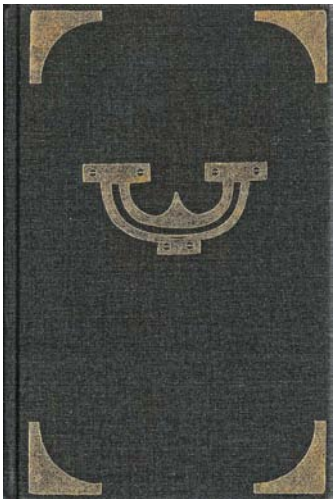
Call 01494 523991 sales@tooltec.co.uk

Fax 01494 524293 www.clickNcarve.co.uk

Workshop library

This month, we look at *Campaign Furniture*, *British Saws & Saw Makers from 1660* and a DVD on making a fir and cherry side table. Website of the month is from Liberon

BOOKS



Campaign Furniture

by Christopher Schwarz

Campaign Furniture was a holiday read for me. Most of the time I crash my way through woodworking reading material on one mode of transport or another. However, this one was devoured almost exclusively from beneath the shade of an umbrella strategically placed poolside. Too much information or happy coincidence? Most certainly the latter. In this book you'll discover the origins of this most practical and sensible genre of furniture, where mobility, utility and purpose were paramount, in perfect harmony.

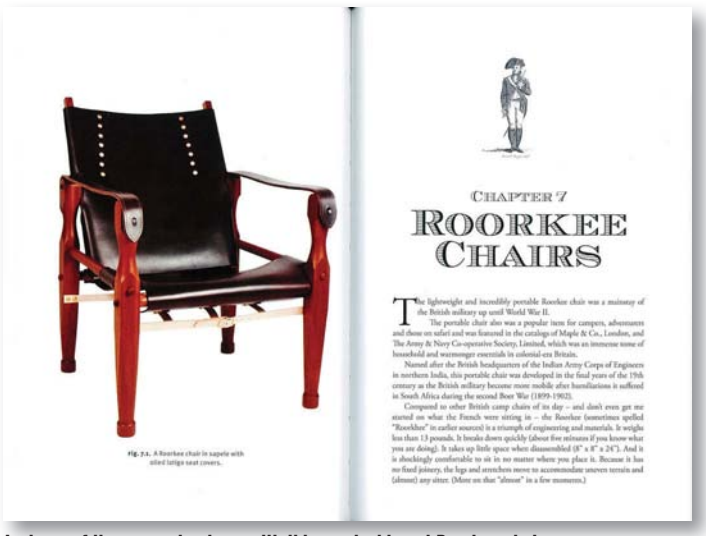
Form plus function results in a powerful visual concept and that's exactly where we find campaign furniture today. That's the design ethos in a nutshell but there's plenty to back this up in the book as Schwarz considers the origins of the style in context. I'm not going to give too much away because I think you'll enjoy finding out for yourself and perhaps even find inspiration for your own projects. You'll be in good company if you do because as the author suggests, campaign furniture is arguably the missing link between Edwardian conformity and 20th-century modernity. On a practical scale, Schwarz has recreated projects in various levels of complexity that you can follow to build your own campaign pieces. The construction techniques are mainly rectilinear joinery with an eye for good cabinetmaking skills. The methods are tried and tested and are good to have under your belt. As a style of furniture to build it has all the wisdom of Shaker and arts & crafts practitioners with a slight touch of bling perhaps. So if you've built your Roubo bench and Anarchist's Tool Chest, you're going to be desperate to start making furniture. Look no further for inspiration; it's all in there.

Published by Lost Art Press
330 pages £26.50
ISBN: 9780985077792

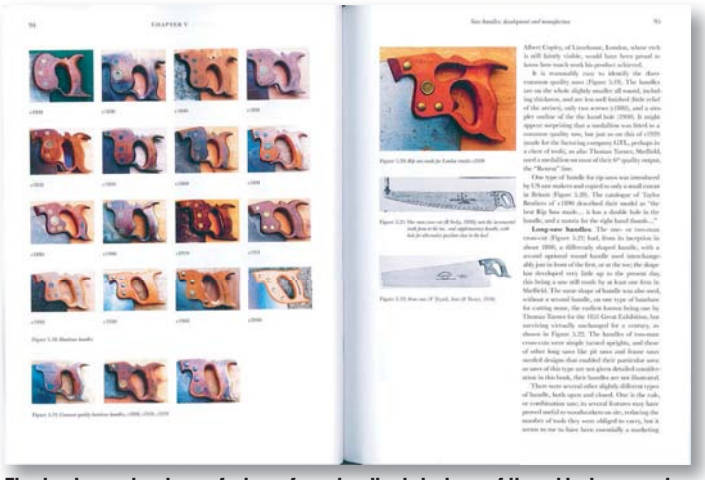
British Saws & Saw Makers from 1660

by Simon Barley

I know what you're thinking: this sounds like the sort of specialist subject you might expect to find on *Mastermind* and maybe you're right, but any subject – and I mean any subject – can be fascinating if you dig deep enough into it and find the real story behind the facts. From there on everything makes sense and you've discovered another piece of the human history jigsaw. In this book, Simon Barley explains the structure of the system that controlled the production of steels and the associated trades from the viewpoint of the craftsmen and women who were engaged in the work. It's revealing, entertaining and humbling in many respects as we have come to take for granted a lot of the tools that are commonplace in the workshop. Most of the trades he talks about are extinct to the point where you can't even begin to appreciate the level of skill that went into making a simple back saw. Grinding, by hand, to tolerances that we find hard to replicate consistently with modern technology is almost mythical. More to the point it's quite unforgivable that we have let this skill set slip through our hands. Anyway, that was my reaction to the first section of this book that set me up nicely to appreciate the remainder. This is basically a catalogue of makers listed alphabetically with photographs of their respective marks that can be used to date and identify saws. Some entries have mini biographies and some are more in depth than others,



Just one of the many chapters, with this one looking at Roorkee chairs



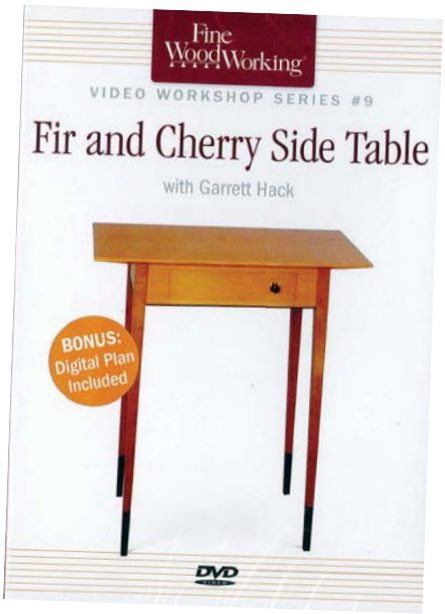
The development and manufacture of saw handles is just one of the subjects covered

but the general gist is that if you have a British made saw from the last couple of centuries, you'll be able to identify it. In case the trail isn't quite as straightforward as it sounds, and there will be exceptions, the author has included more general information about the evolution of such things as handle shape, saw screw design and etching. If you're not already a collector, I suspect you might be after spending a little time with this book. Trust me, once you're hooked, it'll become your bible.

Published by The Choir Press
748 pages £55
ISBN: 9781909300743

DVDS

Fir and Cherry Side Table
with Garrett Hack



From a beautiful workshop at his one-horse farm in Vermont, Garrett builds furniture for those who demand perfection. As his informative website says: 'Fundamental to Garrett's work are hand tools, for the polish of surfaces they cut and the subtle variations possible working by hand and eye rather than machine'.

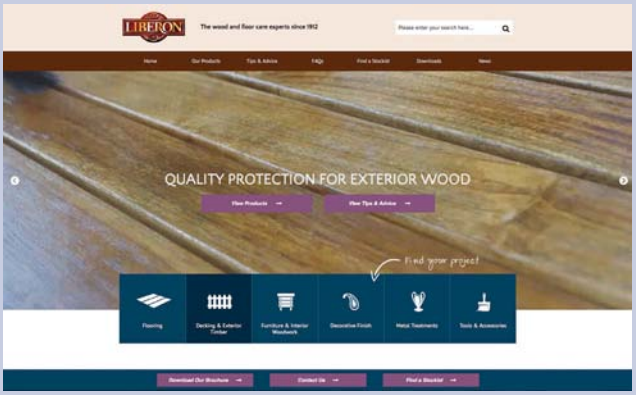
The little side table in this project looks deceptively simple at first glance but with curved dovetail joinery for a single pivot drawer and a laminated side with ebony *(Diospyros spp.)* leg 'cuffs', this is work for the advanced cabinetmaker, which is what it says on the box. However, apart from the man or woman who can, there is plenty here for the beginner who would like to draw inspiration from this beautifully made DVD. With an hour of highly detailed instruction, this master craftsman's techniques are revealed. In addition, there are digital plans provided together with a SketchUp model of the table.

Apart from the details already mentioned, the table features carefully designed splay angles for the legs, which follow through in the joinery of the aprons and then into the drawer itself. As this swings about a single pivot, the drawer side is curved and has to follow through the sloping front apron perfectly during its travel. Garrett is very clear and explicit on how this is achieved and one is left with a sense of confidence that following his instructions will result in complete success. Checking out this hypothesis, however, will remain a future goal for those inspired beginners.

Published by Fox Chapel Publishing
60 mins $19.95 (£12.40)
ISBN: 9781600857560

Website of the month

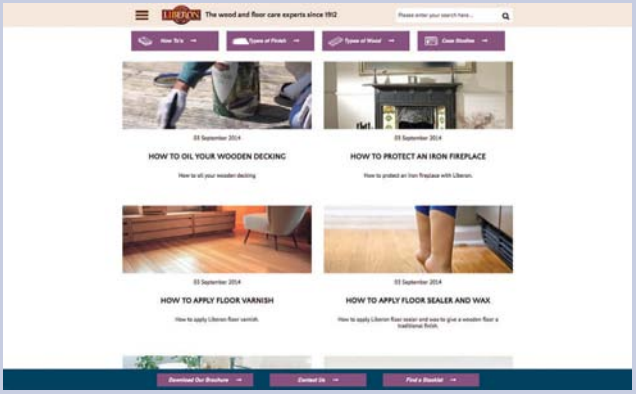
Liberon



The new and improved Liberon website is now set to work using full-screen homepage video content 'to create a premium feel without losing the traditional values of the brand', on both tablet and mobile. The homepage is bright and colourful, with a scroll-through menu across the centre of the page, with a permanent menu at the top. The menus give you options to go through to 'flooring', 'decking & exterior timber', 'furniture & interior woodworking', 'decorative finish', 'metal treatments' and 'tools & accessories'. The top menu stays with you no matter how far down the page you scroll, making it easy to get where you want to be.

The website allows you to view all 300 product lines available within the Liberon ranges, with a stockist locator, coverage calculators and recommended tools and application techniques to use. Although the website is full of information about the Liberon projects, unfortunately, the products are not available to buy through the website and no prices are available, but upon selecting a product, the necessary information is clear, with sharp images used and listings of various dealers readily available.

A definite highlight of the website is that it doesn't just tell you the basic information of the product – there are in-depth tips and advice offered alongside most of the item ranges. Most also have accompanying videos. The website also has an 'FAQ' page with a good range of questions and useful answers, as well as a downloadable brochure and a news page to keep you up-to-date with the latest Liberon products.



Details
Web: www.woodcareexpert.co.uk

SHOP TALK

Youmin Vincent Kim

We find out more about furniture maker Youmin Vincent Kim

PHOTOGRAPHS BY YOUMIN VINCENT KIM

'U Lounge' chair

In his words, Youmin Vincent Kim creates functional art pieces that are designed to be exhibited in an environment to amplify connection between the user and the space. He recently exhibited his 'U Lounge Chair' at The International Woodworking Fair, which won him first prize in the 'Commercial/office/hospitality' category. We find out more about him.

F&C: What are you working on at the moment?
Youmin Vincent Kim: As of right now, I am currently working on a set of residential furniture pieces for a company called Centimeter Studio, based in Seoul, Korea. The pieces are set to be showcased next year, in the summer of 2015.

F&C: What's the tool you can't do without?
YVK: For me, my favourite tools are pen and paper. You never know when a good idea will come through and it's always a convenience to quickly throw down a sketch, grasping the main essence of an idea.

F&C: What's the last piece of equipment you bought?
YVK: In this day and age, almost all design is being executed through digital media. I recently purchased a Wacom 13inHD Cintiq to refine the ideations of my designs further. Traditional methods like sketching are very crucial, but such methods are at times limiting. Having a Cintiq will allow me to take my sketches and designs to a higher level of refinement in the ideation stage, leading to the finished piece.

F&C: Why did you become a furniture maker?
YVK: I'm interested in pursuing the relationship between objects and space, and how people interact with both. I believe that furniture is the one object that people use most in their lives. As a designer, I am most satisfied when people feel happy when experiencing my work or fall in love with my pieces. This encouragement has been a strong cornerstone in my aspirations as a furniture designer.

F&C: What inspires you?
YVK: Anything and everything. Inspiration can come to me in so many different forms. It could be something that intrigues my senses, such as colours, sounds, materials, taste. It could even come from thought and observation, and asking myself whether or not it's been done before and if it has, could it be done better?

F&C: If your furniture were music, what kind of music would it be?
YVK: Hmmm… though it's a pretty abstract question, I can't say my design work is one particular type of music or genre. Music often portrays human emotion, how people feel or want to feel. My design works similarly in the same fashion. It really depends on what the design requires. My designs will move according to theme, how I want someone to feel.

F&C: What do you admire in the craft at the moment?
YVK: The haptic feeling of craft, when an item feels like there is soul in it.

F&C: Who has been your greatest mentor/role model?
YVK: Minsoo Vince Choi is a designer who teaches and advises me about the business aspect of art and design. Being able to support myself financially in design-related work, while making furniture that has market value is crucial.

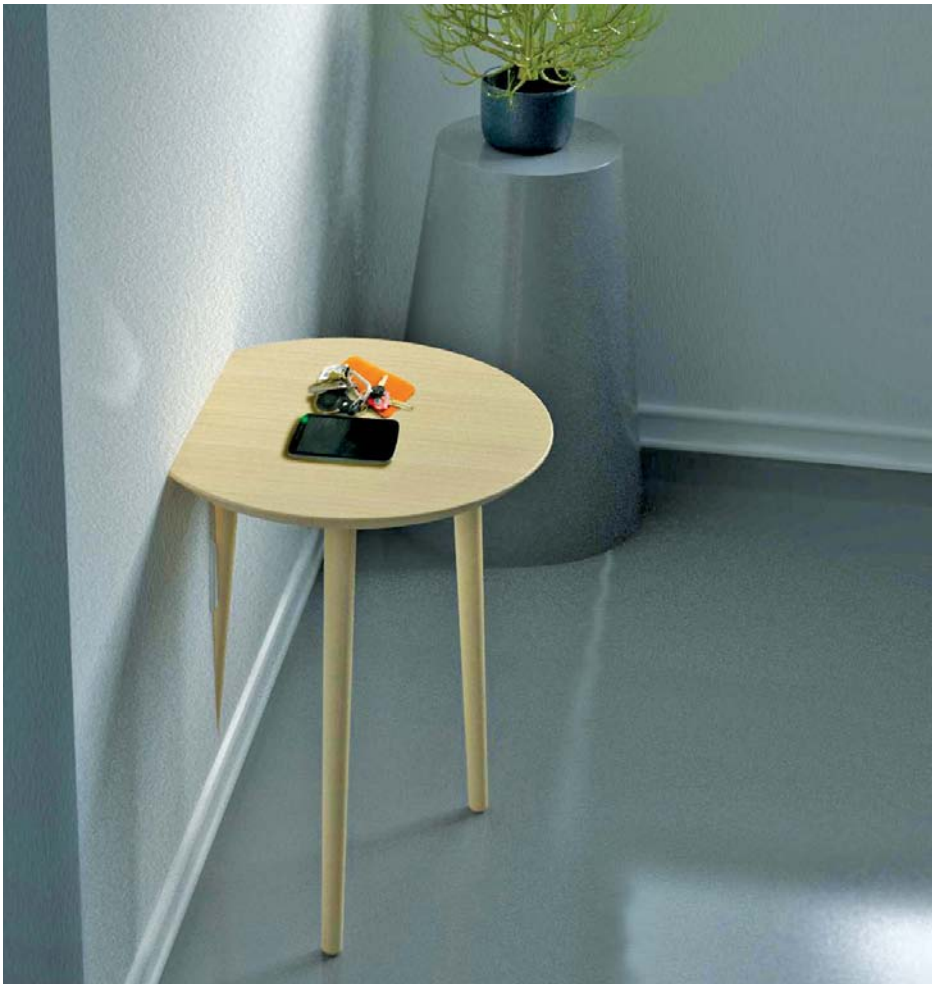
F&C: What comes first, design or technique?
YVK: I would have to say both. Technique

'Stitch' lounge chair for ATU International

is the foundation of putting our ideas down properly. If technique is lacking, then the idea won't be executed properly. No matter how good an idea is, if it can't be done right, it will be just another good idea. Design and technique are two in one and need to be used together.

F&C: Are we too obsessed with outdated modes of work?
YVK: Traditional standard modes of work set a good foundation for designers. I cannot go as far as to say that it is outdated, because a lot of good designs can be manifested with such methods. However, I am a strong advocate for looking at new and novel methods and modes of designing.

F&C: How or where do you exhibit your work?
YVK: I exhibit through competitions and fairs such as ICFF in New York, and IWF in Atlanta. Recently, I showed at the International Woodworking Fair in Atlanta and one of my pieces won the Commercial category. Also, I submit to online exhibitions such as Core77 Design, where one of my other pieces was awarded in the Furniture and Lighting category.



'Soak' charging table, winner of the 2014 Core77 design award in the furniture and lighting category

F&C: How comfortable are you with working to someone else's design?
YVK: Very comfortable. I have developed a set of skills to design and make based around others and myself.

F&C: What's your creative process like?
YVK: I try to collect as much information as I can from my surroundings during my day – things that I can be inspired by, materials, construction technique, needs for design – making my own database in my brain. I don't force myself to finish one design at a time because the more data I collect, the better the design is that eventually comes out. My job is to figure out how to synthesise the data correctly and properly for each project.

F&C: Do you consider yourself an artist or a craftsman?
YVK: I call myself a 'functional artist', which is somewhere in between a designer and an artist. What I want to pursue as an artist is to make objects that my audience can use, feel, and love.

F&C: What's the practical process you undergo when moving through the stages of a project?
YVK: Project and time management. I create schedules and manage my projects around scope, budget and time. I work diligently to follow my schedule, but you can't always put a time or limit on creativity. There have been and I'm sure will be days and nights where I work harder to make sure a project is executed successfully, whatever it takes.

F&C: Do you think furniture making is in danger of disappearing?
YVK: I don't think so. Many people love pieces in mass production, while others still love the handmade pieces with details and efforts crafted by human hands. Furniture will always be used as long as people exist.

F&C: What advice would you give to someone starting out?
YVK: Constantly be looking at things. But it doesn't stop at just looking; analyse deeply every aspect of whatever it is you are looking at. Ask questions and try to find answers. Knowledge and exposure will drive ideas and design. Above all… work hard.

F&C: What irritates you about the industry?
YVK: I have yet to come across too many things that I find irritating. But one thing may be the compromising of originality. F&C

Contact:

Email: vincent@youmin.kr
Web: www.youmin.kr

UNDER THE HAMMER:

Museum-quality cabinet with Florentine pietre dure panels

This masterpiece of German and Italian craftsmanship from the famed Ballyfin House in Ireland recently went under the hammer at Bonhams

The extraordinary piece is one of a small group of highly important table-top cabinets made in Augsburg, Germany during the mid-17th century. Standing roughly 850mm high and wide and made of ebony *(Diospyros spp.)*, silver and Italian pietre dure panels, this 'Kunstkammer' was the star of the show at the recent European Furniture, Sculpture, and Works of Art sale and had a pre-sale estimate of £400,000-600,000.

A distinguished piece

For centuries it was the highlight of one of Ireland's most distinguished private collections, in one of the country's most important houses – Ballyfin, Co. Laois. This cabinet was almost certainly purchased for Ballyfin by Sir Charles Henry Coote, ninth Baronet, in the first half of the 19th century and until 2006 it was kept in the family despite the sale of the house in the 1920s.

The sale of this remarkable and extremely rare piece represented a truly exciting event

'Kunstkammer' cabinet, approximately 850mm high × 850mm wide, in ebony and silver with Italian pietre dure panels

The cabinet drawers also feature exquisite detailing

PHOTOGRAPHS COURTESY OF BONHAMS/ELIAS BOSCHER

£482,500

for the art world. It has been preserved in immaculate condition and we see it today as it stood some 350 years ago.

The cabinet, circa 1660, is one of only a small group known to still exist, produced at a time when the craftsmanship and prestige of Augsburg's cabinetmakers was unsurpassed throughout Europe. They were made to reflect the social standing, intellect and wealth of the commissioning patron and were fashioned from the most expensive and exclusive materials sourced from around the world. The pietre dure panels – marble inlaid with designs depicting birds and flowers in lapis lazuli and other hard stones – were produced by the Florentine Grand Ducal Workshops, or 'Opificio delle Pietre Dure'.

Detailing showing the bird panel

References

Bonhams
Web: www.bonhams.com

Rijksmuseum
Web: www.rijksmuseum.nl

Side view showing the columns and panels

Cabinet details

Within this cabinet are some 40-plus drawers or compartments, some hidden, and all lined with exotic silks and intricate wooden marquetry. So complex is its design that the last owner recently discovered a new compartment when exploring the cabinet with his grandchildren. They were used to house collections of 'curiosities' and 'microcosms of the universe' – an encyclopaedic range of natural and man-made wonders encompassing natural history artefacts, precious stones and metals, shells, minerals, scientific instruments and other prized possessions, designed to reflect the entire cosmos on a miniature scale.

The signature in pencil on the underside which reads 'Elias Boscher gemacht' – 'made' – together with the hallmark of known Augsburg silversmith Johann Spitzmacher on the gilt mounts, are highly unusual for such a work of art, and provide a crucial artistic attribution. The relatively recent rediscovery of the cabinet in 2006 has contributed significantly to our knowledge of a group of pieces that represent a zenith in Continental decorative furniture making. The remarkable provenance and museum-quality condition also add greatly to this cabinet's value and prestige.

"The impact of the vibrantly colourful pietre-dure panels depicting birds and flowers inset in the ebony carcass and mounted with rich silver-gilt mounts, is truly mesmerising," commented Francois Le Brun, director of European furniture at Bonhams. Unsurprisingly, this beautiful survival from the Grand Ducal Workshops attracted international interest and drew collectors, institutions and dealers from around the world to Bonhams London.

An ivory cabinet with pietre dure panels, so similar to the present lot as to be a sister piece, is in the collection of the Rijksmuseum in Amsterdam. F&C

"So complex is its design that the last owner recently discovered a new compartment when exploring the cabinet with his grandchildren"

The flower panels

FFX TOOL SHOW 2015

Register NOW at FFX.CO.UK for exclusive pre-show offers & prizes!

THE UK'S FAVOURITE TOOL SHOW IS BACK.

NOW EVEN BIGGER AND EVEN BETTER

Live demos from industry experts, unbeatable deals, competitions, masterclasses ***and more!***

27th Feb | 28th Feb | 1st March 2015

Kent Event Centre, Maidstone, Kent

50,000sq ft of the BEST BRANDS UNDER ONE ROOF

LOWEST UK PRICES - GUARANTEED!

FREE ENTRY

REGISTER AT FFX.CO.UK

FFX TOOL SHOW 2015 FESTOOL DEWALT scheppach trend sein AND MORE!

INTRODUCING
THE CNC MINI

The latest desktop miniature engraving machine for 2D and 3D engravings, photo images and routing projects complete with easy to learn software.

Fully integrated guarding - when the guard is lifted the machine stops. Safety first!

Suitable for use in the education sector, commercial sector and for the hobbyist.

Examples of what you can create:

Tibby Singh
BBC
Young Carpenter of the Year

"Trend's CNC Mini is neither complicated nor expensive. I couldn't believe how user friendly it is to produce a masterpiece, after just a few quick clicks. This Trend CNC Mini is certainly a mighty machine!"

AD/14/27

trend®
routing technology

REQUEST YOUR CATALOGUE NOW
Email: enquiry@trendm.co.uk
or call 01923 249911