

WORKING WOOD BY HAND

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@QUERCUSMAGAZINE

Quercus

Women & Children First, Please

New Tools, New
Teaching for a
New Type of
Craftsperson

PLUS

Jenny Bower
Julia Kalthoff
Dylan Iwakuni
Richard Arnold
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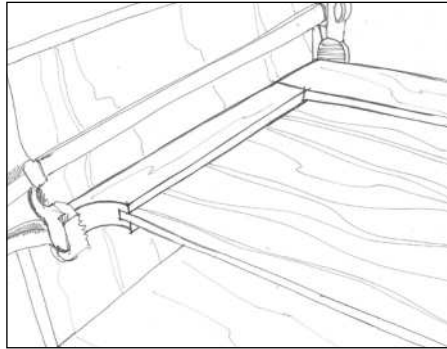
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WORKING WOOD BY HAND
Quercus

This magazine is about woodworking with one's hands. Working Wood by Hand (Mostly) is our mission statement. Who it is that enthuses about hand-tools is incidental, and yet it is important that we welcome new recruits and are aiming to broaden the world of wood's horizons. That is why Jenny Bower and her daughter Maylin are on the cover, and we quietly mention ideas and actions and thoughts that attract more women and children to our community.

And my word have we got something for anyone new to *Quercus* to read and enjoy. It has never been our intention to concentrate solely on chairmaking, but that seems to have become a focal point. I for one, discovering that I can make William Morris's classic Sussex Chair in my kitchen, am learning that chairmaking does not have to be as exclusive as many people think. Though he has written a detailed article on Gerrit Rietveld's 1918 Red Blue chair (one of the most significant of the 20th Century), Robin has also been upgrading his bench hooks and recalls his introduction to the axe. Derek Jones explains why, where and how fit to drawer runners and Richard Arnold reports on early wooden bench planes, preparing himself for an article next issue when he makes them himself.

There is no doubt that *Quercus* will do a Sweden Special Issue soon as it is proving to have such a wealth of extraordinary people and stories. But we couldn't hold back our profile of Julia Kalthoff, seeing as we are promoting women this issue, and we had to feature Jörgge Sundqvist's coat hooks in winter time. And neither can we hold back Daniel Berhe's fantastic Slöjdpung, which spooncarvers will love on p.15.

Nick Gibbs, Editor

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Fired up by Quercus

What joy to learn that two famous Johns in QM01 inspired chairmaker Peter Murray

Peter Murray is an experienced chairmaker who worked as long-term assistant with Peter Hayden at Westonbirt Woodworks. He is now a retained firefighter and works three days a week for the Cart Shed (a charity on the Herefordshire/Shropshire border), which provides therapeutic handwork for people with mental health issues. So it's hard to imagine how he has time to make chairs, and remarkable that he should be inspired by an article in *Quercus* so soon.

"The two stunning classics featured in David Savage's article [QM01] on John Brown's and John Makepeace's chairs. It made me want to try to make a piece containing the Windsor form and rustic charms of Brown's with the contemporary curves and flowing lines of Makepeace's," Peter wrote in an email with a clutch of photos attached. "I'm not claiming I've achieved this, but here is my attempt."

Peter Murray (aka The Artful Bodger) does his chairmaking at home in a stable workshop within a co-operative housing community, Earth Work Housing, near the village of Leintwardine in North Herefordshire. Fortunately he lives only five minutes from his fire station, in the early 20th Century Arts & Crafts mansion that was bought and split up into flats 30 years ago by a hippy couple of doctors to form a commune. He is on call 80 hours a week, but can choose his shifts on the County Fire Brigade website. So just as most woodworkers lock the workshop door and turn off their phone, Peter can clock out for glue-ups. This has been crucial for this chair, which is being made as a gift for his father and not for sale, because the joint between each leg and the seat is noticeably awkward.

It is indeed that shapely joint that is most distinctive for this chair. Now that Peter works as a firefighter and for the Cart Shed he no longer has to rely on chairmaking as a living. "It means I can afford to take this chair as I wanted. I am a very visual person and was aiming higher." The tapered back splat is unusual, only similar to an Ercol chair thinks Peter. The angled arms offer "extra perspective" and make the chair more comfortable. To our satisfaction, he was inspired by the article Robert Turek (@brotherroberts) also wrote in QM01 about modelling to aid furniture design. "I've never done scale models before," Peter says, "but with this chair being different I thought I would give it a try. I didn't do a complete model, but it was still certainly a useful exercise, helping me to figure out how to attach the legs."

The bow arms and back and the spindles are all made from green oak, steamed for bending and dried in Peter's custom-built kiln into which he can fit 3ft long legs and bent arms and backs. The kiln box, which is made from Kingspan foam sheeting, is about 36in long and wide, and 18in deep. The parts are stacked with stickers, of course, and are kilned using the electronics from a chicken incubator, food warming lamps, and computer fans. This Heath Robinson contraption has never been Health & Safety tested, so Peter, as a firefighter warns readers that he can take no responsibility for anyone who tries to replicate his solution for drying green wood. It usually takes a few days, with condensation on the top gradually diminishing on the clear lid as a sign that the timber is 'seasoning'.



Peter using the Westonbirt Woodworks hook tool (in his right hand) to help level the extended auger to drill chair legs. A model of the seat & legs inspired by *Quercus*, and his milk paint



The oak for the seat and legs was bought from local sawmills seasoned, principally because it had to be a 4in-thick slab to accommodate all the shaping for that joint with the legs. Peter started by planing a wide, angled bevel along the underside of the seat for the leg joints. This had to be perfectly flat so there'd be no wobble, and once this was done drilled a 1in dowel hole through the seat. He worked on the legs to line up and sit truly on the bevel. For assembly a Turbo screw, with a wide washer, protruded through the dowel hole in the seat to pull up the leg. Once the PU glue had gone off and the joint was pretty sturdy, the coachscrew could be removed, a matching hole could be drilled into the top of each leg, and an oak dowel was tapped in to reinforce the joint. Simple if you know how.

Peter shapes his seats with a modified Bristol Design travisher, opening up the throat, and gave the seat a 'beetle' look by using a hook knife to carve the little nicks. Then, also for the first time, he finished the chair with milk paint.

LINKS Visit theartfulbodger.co.uk to find links Peter recommends. If you would like to find co-operative housing, visit diggersanddreamers.org.uk.



Observing Play Together

Steve Schuler writes how he is passing his craft to his children

There was a time when many craftsmen expected to hand down their professional craft to their sons. The phrase 'Sons' in the names of many companies testifies to a long tradition of generational work. Yet I doubt that today most of us imagine our children will do the same professional work that we do. Our hobbies, on the other hand, are a different story. Many golfers teach their children to hit a golf ball, and many anglers teach their children to catch fish. But many woodworkers never manage to teach their children to use woodworking tools at all. How, then, do we pass on our woodworking to our children?

A good deal of it, I think, has to do with where we do our woodworking; the physical space where we choose to do our work. Many old woodworkers have a strict 'No Children Allowed' policy in their workshops, then are dismayed that none of their children ever showed the slightest interest in working with wood. Instead of passing down treasured tools to eager young descendants, their tools are eventually auctioned off by grandchildren who can't tell a shoulder plane from a marking gauge.

So if you have children or grandchildren (or even curious neighbourly kids) whom you would like to see pick up the craft, the first thing you have to do is let them into the place where the woodworking happens. Or, better yet, do some of your woodworking where the children can see you, whether on the front porch, in the driveway, or even at the kitchen table. When we moved into our current house, my wife and I decided to turn one side of our large dining room into a workspace. That's where my joiner's bench and my hand-tools are. My children are growing up watching me make things with wood, and they work at the bench now, too.

Learning always begins with observation and imitation. If your children regularly see you working wood, at some point they will want to do it, too. The beauty of working primarily with hand-tools is that wood shops can be relatively safe places for children. Machine-focused shops are noisy, dusty, and dangerous places, unsuitable for visits even by older



children. (Consider the possibility that any place that is absolutely unsuitable for children might also be unsuitable for human-beings of any age.) But if you work with hand-tools at a joiner's bench, even a toddler can safely play in the shavings that are curling from your hand-plane as you smooth a board.

Observation quickly turns to imitation as children begin to play at the work they are observing. The first stage of real learning is always play. We all do this when we acquire a new tool; we test it out on a piece of scrap to see what it can do. Play prepares us to work. So in order to introduce our children to our craft, we must let them play at it first. Soon they move from playing with scraps to playing with the tools themselves.

At this point it helps to have smaller-scale tools that are easier for children to handle. But don't assume that children need toy tools. A Stanley No.3 handplane is easy enough for an 8-year-old to handle. So is a 12in backsaw. I did outfit one panel saw with a handle scaled down to 75% of the size of the original handle, and that one has become a favourite with all the younger children.

One of the best tools for children to play with is a hammer and a box of nails.

A lot of us began working wood when we drove our first nail into a bit of lumber. I know children for whom the simple act of driving a nail into wood is an emotionally cathartic experience.

We often find solace in our craft. So why shouldn't our children do the same? All the better, then, when the child learns to nail together a simple box or some other object.

Some children will be content to play at woodworking for a long time. They may not show much interest in the finer aspects of the craft for several years—perhaps not until they are grown up. But for most children there comes a point when they stop playing and want to actually build something with you. It might be something as simple as a small box or bookshelf, or it might be something as complicated as a chair or a chest of drawers. You may need to talk them down to something simpler initially, but in most cases you can go with it.

Plan out the project with them. Keep everything as simple as practicable. Then plan out which elements of the project will be done by you (probably a lot of the initial dimensioning of parts), and which will be done by the child (probably a lot of the assembly). But do involve the child at every stage if you can, from taking him or her along when you shop for the wood, to letting him or her try planing one of the boards flat.

I don't want to paint too idyllic a picture here. Children have short attention spans, and it's easy for everyone to get frustrated when something goes wrong, or just goes too slowly. Children, just like grown-ups, need to be allowed to put their tools down and go do something else when things aren't going their way. They just need to do it a little more often than most adults do. In the meantime, remember that when you build something alongside your children, you are actually building a relationship (hopefully, a good one); you are building skill in the child; and you are building a project. Even if the project never gets finished, you have still built some skill, and you have also built a relationship, both of which are far more important than the project.



Nailing a box together gets the quick results kids love (above). Driving nails is a fundamental woodworking skill, too. Steve's workbench is open to all his kids, whether they want to drill, saw or plane (above right). Having the workbench inside the house makes it accessible to all



Sometimes one of the kids takes on a really ambitious project (above). Steve's oldest daughter builds her second dresser after selling her first one to a friend. Older kids have project ideas of their own (right). Here one of Steve's daughters planes down a bit of wood to paint. Mom works wood, too. Steve's wife Grace specialises in wooden coffee spoons (left), which are a popular item at the market booth

Making a Way to Worth

Inspired by *Quercus*, Adam Flack makes inclusion school students into chairmakers

I have been working with students from Future Education Norwich an inclusion school for a year or so. They visit me once a month at a lake site that I hire; at least that's the plan when there's not a pandemic on. It's a small group of around five students and some supporting teaching staff. We usually have a theme or topic for working on during they day. Last month we were carving spoons and spatulas. We had talked about making stools during this December's session and coincidentally I picked up a copy of *Quercus* magazine which had the article for the quick stools. I was planning originally to make some three-legged stools but Alison Ospina's style caught my eye and I did a trial run to see how long it took and to gain an idea of the process. It's really nice to be able to introduce people to hand-tools in a constructive way. I have a number of tools that we use. I've picked up most second hand and restored them. I have wooden and metal spokeshaves which are always popular. Drawknives too: one which gets some attention was made in 1917 and still works beautifully. Also saws, files and rasps. Bushcraft and whittling knives, a froe, augers, braces and bits, mallets and a rounding plane are on hand for use.

For the session I bought some planked beech. I have a friend who runs a firewood business. He has a bandsaw mill and calls me regularly to tell me he's got some interesting wood he's just milled for me. Last time he did that he told me he had some cherry for me. When I turned up he drove a forklift with a tree trunk on it round the corner and we cut it into slabs. That's all sitting and air-drying at home now, waiting for probably a year or two before I can start using it.

Anyway, I had the beech milled to thickness and crosscut to size (roughly 12x12in). Because we have only a limited time I cut down some hazel before the session, though the students cut these to length. We measured and marked where we wanted to drill before using augers along with bits & braces to drill the holes into the stool tops. We noted how the different styles of auger ends worked more or less efficiently in the wood. Having the spurs to sever the fibres left a much neater hole.



The hazel legs, cut to length with a bowsaw or folding saw, were cleaned of bark using drawknives on the shaving horses. We then measured and marked the diameter we needed on the ends and used the drawknives and spokeshaves to reduce them until they fit into the drilled stool tops. We discussed how the wood is going to shrink, having been cut only a few days earlier, and discussed how we might deal with this by either leaving the legs over-sized until they have dried or perhaps cutting to size now and using a wedge inside the blind tenon to expand them once they've shrunk. One student opted to drill fully through the stool top, aiming to wedge the tenons and create a shoulder on the leg underneath.

We ran out of time after test fitting the legs so plan to continue in the New Year during our next session. Some of the teachers took their stools home to finish after we discussed the next steps.

As a project to build, particularly for those new to woodworking, I like that

there doesn't need to be too much focus on exact angles. Using wonky bits of wood adds a bit of crazy character and the idea of pushing the legs into a splayed angle with the spindles simplifies the process beautifully.

You asked me what is valuable about the design from *Quercus*. For the group I was working with, where attention spans can be short, it's a tangible thing that can be built and used from simple component parts. It offers the opportunity to use tools and skills towards a purpose, understanding what they are doing and seeing how they fit together into the final piece. For young people who are often told (be it overtly or subliminally) that they can't or haven't achieved in the classroom, perhaps that they are not even trusted with a pair of scissors, it's a great feeling to be able to say "Try this drawknife," and see that as they reduce a piece of wood by taking little shavings they are also building up their confidence, skills and feelings of self-worth.

An Axe to Grind

Robin Gates sees greenwoodwork as the antidote to the electronic age

I am convinced our previous abode on the Isle of Wight was an official waypoint on the training route of door-to-door advocates for home improvements, political parties and religious groups. Barely a day went by without some smartly turned-out individual with a Colgate smile wedging a foot inside our front door and thrusting a leaflet in my hand offering to fix the guttering, the country, or me.

But the doorbell saw much reduced activity after I took up green woodwork, and I can trace the drop-off in visitor numbers to a particular afternoon in early summer when I'd been roughing out a sycamore bowl. Absorbed by the gradual transformation of the solid into the hollow form, then irritated by the untimely ding-dong resounding through to the workshop, I answered the door with a somewhat gruff greeting and, absent-mindedly, with the axe still tightly gripped in my fist, and making those little chopping movements typical of working across the grain.

"Oh, I'm sorry," they said, spotting one of Gransfors' finest where they'd hoped to place their dubious literature, and retreating down the garden path. "You're busy," they added, just in case I hadn't noticed. So word must have got around, there was a nutcase living at No 6, and it would be better to leave his windows to rot, and his soul to the devil. There were fewer interruptions after that.

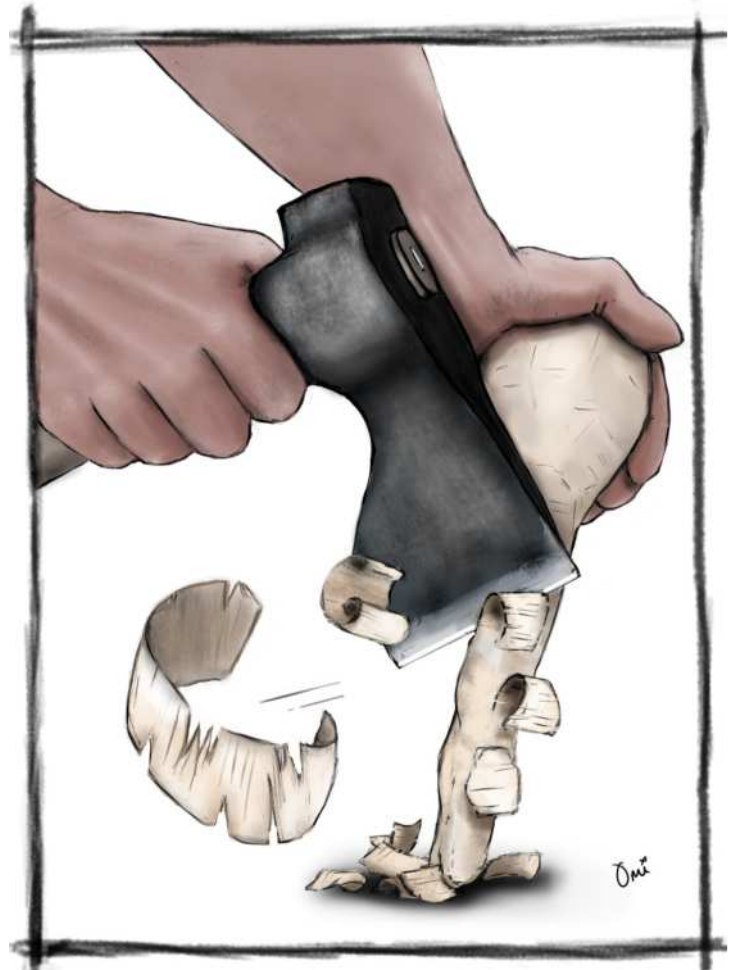
Having grown up with coal fires, I've always felt at home with an axe around the house. Fifty years ago, the first thing you saw on opening our back door was the firewood basket with a scruffy Kent pattern axe nestling among the kindling. The edge was well chipped from my off-target hits on a concrete floor, and the head itself was slightly loose but a swift knock on the floor, handle first, sorted that. Functionally, it was more of a splitter than a cutter, planted in the end grain before whacking the wood on the floor until it was wedged apart.

Being the first home, on a school day, I'd often amuse myself by splitting wood ready for Mum to light the fire. I got to know the splintery awkwardness of softwood knots and the surge of satisfaction that comes from a piece parting like two fingers of a Kit-Kat. By the time Dad got home from work on a winter's evening the living room hearth would be ablaze. There's a lot to be said for central heating, I know, but little joy to be had with a radiator and a toasting fork.

Given the creeping domination of our lives by electronic devices, making us ever more dependent on its push-button, touch-screen, artificially intelligent ways, our need to use an axe is greater than it's been since the Stone Age. Back then, when the axe was born from a fractured flint, it killed our food and built our shelters. Now it simply reminds us that we are human. Heft an axe, close your eyes, and in its weight you can sense the effort and the sweat of civilisation being shaped through countless generations. In the axe, in the hand, lies the power to change and to create – to create what?

Well, spoons of course. Me, I'm way too squeamish to go axing bunny rabbits for dinner, and too plain lazy to build my own house out of logs, but even I can make a wooden spoon of sorts, for which the first step is roughing out the blank with an axe.

Back before the internet (a time which seems as remote as



CARTOON: OMI GATES

the Stone Age) I carved out a spoon more or less by accident, and felt daft for having done so when a far better spoon could be had for next-to-nothing in the home wares aisle of the local supermarket. Now, dip at random into the theatre of online woodwork, and if it isn't someone showing how to cut a dovetail joint, there'll be a latter-day Norse god chip-carving a ladle as shapely and decorative as a turtle dove. Spread by video and the full monty of social media, spoon carving has become the woodworker's equivalent of kittens. Everyone is looking at spoons and going, "Aww."

And not just looking. If the wares in the market stalls and galleries of my neck of the woods are any guide, a goodly number of refugees from our over-automated society have been toning up their long-dormant makers' muscles to become axe- and knife-wielding green woodworkers, turning out spoons, spatulas, and spurtles sufficient to feed the world. And why not. In the most practical of its meanings 'having an axe to grind' goes back thousands of years – it's as good as in our DNA.

All Hands on Deck

Paul Hayes encourages us to employ both arms to increase skill and versatility

To perform our art, we need four things – wood, tools, knowledge and dexterous (hand) skills.

Wood and tools can be bought from dealers. Knowledge can be gained from instructional books and DVDs or from magazines like *Quercus*, where top professionals share their vast know-how and experience with us mere mortals. Dexterous ability can't be bought or learned from a book – it has to come from you. To be proficient at any skill, whether it be playing a musical instrument, competing in a sport or creating something from wood, the process is the same: practise, practise, practise. The more those hands use tools, the more skilful they will become. So ask yourself, are you right-handed or left-handed? Well, most of us are right-handed, the remainder being 'South Paws'; blessed with a dominant left.

But just hold on a minute. How many hands have you got? I have two, and I assume most of you will have the same. So why do we limit ourselves by allowing our capabilities to be ruled by just one of our hands? Where would we gain if we could use either hand in the dominant role? Well, three areas immediately spring to mind: carving, turning and planing.

When I carve, I need to make cuts from any and every angle. If I can only control the chisel or gouge accurately with my right hand, I'll be constantly removing the wood from its clamp and turning it round, spoiling the flow of my work.

At the lathe, my right-handedness makes tool passes from right to left a doddle. Cuts from left to right ain't so easy. When I'm performing an operation that needs a bit of extra care, such as cutting a deep cove or using a skew chisel, I'm quite likely to end up with the two sides of the cove not quite matching, or the skew chisel performing a spectacular dig-in when attempting a cut from left to right.

To plane a straight-grained piece of wood is easy, but if the timber has a wavy grain which keeps altering its direction at the edge of the board, then I'm continually turning the wood around, unless I can use the plane in either hand. Get my drift? If either hand can 'take the lead', you will work more quickly and more accurately. So how do you become



ambidextrous? Believe me, it's easy, at least to the level needed for hand-tools. Look at people who play a musical instrument. Without realising it, they became ambidextrous, to a sufficient level to perform their chosen skill in a more versatile way.

Just as musicians perform exercises to increase their ambidexterity, so you can do things to improve yours. Eat your meals with your knife and fork in the opposite hands. Comb your hair and clean teeth with the 'wrong' hand. Right-handed people carry loose change in

their right trouser pocket and can take it out and sort through it just using their thumb. Start carrying your change in your left pocket. Mark a series of lines across the edge of a scrap piece of wood with a square and marking-knife, but held in the opposite hands to normal, then practise cutting accurately to those lines with a tenon saw, held in the wrong hand.

You will be able to think of a dozen other situations in which the 'wrong' hand can take the lead. Try it. You'll be surprised how quickly you'll be using tools in either hand without giving it a thought!

The Double-Edged Saw

Of all Japanese saws, *Dylan Iwakuni* considers the Ryoba to be the most popular

Ryoba Nokogiri (literally translates to 'double-edged saw'), commonly known as Ryoba saw in English, is probably one of the most frequently used and most popular Japanese hand-tools outside of Japan. It is an easy tool to try first compared to chisels or hand planes which require careful set-up and sharpening. However, the difference with Western saws is that Japanese saws are designed to be used on the pull stroke.

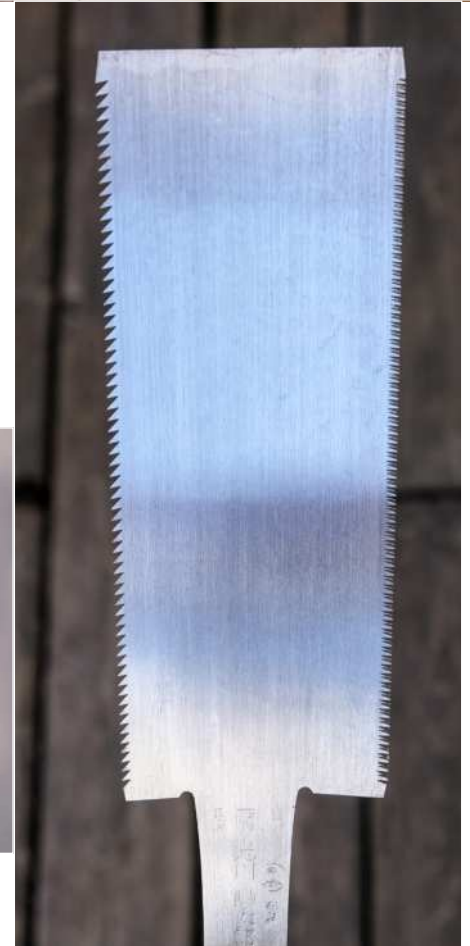
With the Ryoba saw, there are two different sets of teeth on either side of the blade. Each side is designed for a specific direction of the wood, the finer teeth for sawing across the grain and the rougher teeth for sawing in the direction of the grain. By dividing the sides, the sawing becomes more efficient and leaves a cleaner cut.

Though the Ryoba saws are well known and widely used, they are a relatively new tool, at least in the long history of saws. Egyptian wall paintings from approximately 4500 years ago show saws being used. In comparison, Ryoba saws were invented about a few hundred years ago. Only when consistent quality, imported steel and oil quenching processes became common did the Ryoba saws become prevalent. The steel simplified the forging process and allowed stronger, yet thinner saw blades to be made. These criteria allowed blacksmiths to refine the details, amongst other things making the middle of the blades slightly thinner. It was only in the late 1800s, that Ryoba saws like the ones we have now could be made. It didn't take long for that style to become a mainstream tool.

However, with the age of Industrialisation, machinery and power-tools soon reduced the demand for hand saws. In recent times, more affordable factory-produced replaceable blade saws have become a commonplace. Though one is not necessarily better than the other, there are differences between a replaceable blade saw and blacksmith forged saws. Significantly they are made in different ways. Typically with the replaceable blade saws only the tip of the teeth is hardened. This means once the teeth are dull it can't be resharpened and the blade has to be replaced. But on the flip side, the blade is flexible and can withstand some abuse, especially



When starting the cut (above), the thumb can be placed against the blade, helping to guide the saw and prevent the saw from jumping into the line. The finer teeth (far right) are for sawing across the grain and the rougher teeth (near right) are for sawing with the grain. On the rip cut teeth, the teeth get slightly smaller towards the handle, making it easier to start the cut with the bottom teeth. On more expensive saws, the middle is slightly thinner (below). This helps reduce resistance when sawing and gives a smoother feel



suitable for those starting with Japanese saws. In contrast blacksmith-forged saws, can be resharpened or, if necessary, reshaped until the width of the steel wears out. But as the blade is brittle, if too much force is applied or the saw is used incorrectly, the blade can easily snap. I, fortunately, have not snapped a saw yet but I've heard horror stories of people snapping them. These saws require proper use and are more suited for someone with some experience.

The replaceable blade saws can be easily taken apart, making them convenient to pack and carry. If you have several blades, whether different sizes or uses, they can be switched while keeping the same handle. Here's a little fun fact I heard from a tool storekeeper. The blade mounting system for Ryoba saws differs from one manufacturer to another, requiring the blade and handle to be from the same maker or even the same series. However, many makers use the same mounting system for the Kataba saws (single-sided saws), allowing you to use saw blades from different manufacturers while keeping the same handle.

Though the saw blade of replaceable saws needs to be changed once it wears out, finding a replacement blade is typically easy and replacing it is straightforward. You can resharpen the teeth for blacksmith-made saws, and it is possible to resharpen the teeth yourself but that requires some tools and knowledge. Furthermore, once it comes to tensioning and straightening the saw, it becomes more difficult. In Japan, we usually send our saws to be sharpened by a professional saw sharpener. Unfortunately, with the dwindling demand and the ageing of these professionals, the number of skilled saw sharpeners is slowly declining. Getting a blade sharpened can take several days and can cost more than a replacement.

With that said, I use both types of saws. For rough work where I need to remove materials quickly, I use the replaceable blade saw. There's no worry of snapping it and it gets the work done. For fine work, where the surface is the finish or will be visible, I like to use the blacksmith-made saw. It leaves a clean, smooth finish and makes you more focused when sawing.

Using the saw

The first rule of sawing is to let the saw do the work. When first holding a saw, many users tend to apply excessive pressure, making the saw difficult to pull and control. If the saw is sharp, just pulling the saw will make the saw cut. Pull down but don't push down.

Position-wise, make sure your body is



straight with the saw and you can see the line you are sawing. Whenever possible, I keep the waste side on my right (I am right-handed). When starting the initial cut, I place my left thumb against the side of the saw, both to help guide the saw and to prevent it from accidentally jumping into my line.

For the initial cut, start from the edge of the material using the lower part of the saw, going with small, controlled strokes. Once a slight cut is made and the saw has a footing, slowly lean the saw to create a shallow line about 1mm deep. After a path for the saw to follow has been cut, start using longer strokes, utilising the full length of the saw and deepening the shallow line created previously.

As you saw, make sure to saw only the lines which you can see and turn the material around as needed. As a general rule, it's good to saw a shallow line first, then saw the inside. At first glance, sawing may look deceptively simple but sawing straight is a difficult task. How straight and precise one can saw is also affected by the condition of the saw. If you find you need to apply excessive pressure for the saw to cut, the blade is most likely dull. As with any other tool, getting good at it comes down to practise. Hopefully, the tips here will help improve your sawing, and most importantly, watch the lines and your other hand when sawing.



Using the full length of the saw (above), the area in between the two shallow lines will be sawn. Before the saw goes beyond the lines I can see, I will turn the material, saw the next shallow line, and then continue sawing. I like to hold the bottom of the handle. A replaceable blade saw (far left) and a blacksmith-forged saw (near left). The replaceable blade saw is convenient and it is easy to replace the blade. However the screw mechanism can get in the way of sawing



A shallow line to guide the saw is made (above). The shallow line will be sawn on two sides. The sawn surface (below). Whether you saw next to the line or on the line depends on the work. If the surface is going to be cleaned with a chisel or hand plane, it should be sawn next to the line. How close to the line you saw will depend on your skills and confidence



Products Old & New

Things happen at *Quercus*, including, as you will read, a brand new plane handle

Before we can have a glance at the new products that we've seen since the last issue of *Quercus*, words must be said about the Veritas Tenon Cutters. We'd argue (but are open to other ideas) that nothing has had as great an impact on the principle (as suggested on the cover) of Women and Children First, than the Veritas Tenon Cutter. It was released in 1995 with a wooden body, and then a couple of years later in the design we know now. Usually driven by a cordless drill, they may not be as easy to use as one might hope, with a tendency to drift, but with care and tuition they have transformed the way chairmakers can supplement their earnings from sales by offering courses to a much wider audience than was previously possible. And parents and grandparents can show children how easy it can be to make projects, and even chairs and stools.

In 1996 Alison Ospina, who had previously been a jobbing woodwork teacher in London, moved to Cork, in south west Ireland, with nothing much to do when she discovered that all the teaching jobs were filled. For a moment she considered making Shaker chairs, having been bitten by the mid-90s bug, but her life changed when she was then given Jack Hill's *Country Woodworker* book. "It was an epiphany," she recalls. She'd been an addicted chairmaker for many years, but had never considered making them from green wood. She sold her chairs in a local gallery as fast as they could be made, but she wanted to interact with people more, and started running courses, which were fuelled by a journalist friend joining one for an article in *Country Living* magazine.

A valuable asset

The courses were not catalysed by the Veritas Tenon Cutter, but it has certainly been a valuable asset in attracting a different type of participant, and you can see their use in most of her chairs and the ones made by 'students'. Paula Bradley, for instance, went on one of Alison's three-day chairmaking courses, and was so addicted she had made 20 when we interviewed her a few years later. Paula has not been a typical 'graduate' says Alison, yet surely tools like the Tenon Cutter have helped to open new



The Veritas Tenon Cutters have opened up woodwork to younger generations and have helped the running of chairmaking courses, as at Westonbirt Woodworks (right)



New Products

doors. "I'm not good with my hands, and had never used a drill. I was determined to make a chair when I got home, so I bought a tenoner and cut down some branches. In the beginning the family just laughed, but then they started asking for one. It's changed my life."

Though it is sometimes used on an auger, more often than not the Veritas tool is an accessory for a cordless drill. Does it count as a hand-tool? The same is arguably true of the Arbortech Woodcarver, designed in the late 1980s by Kevin Inkster in Western Australia. Since then Arbortech have launched numerous models based on that original idea, which is used so often by sculptors and by chairmakers 'bottoming' Windsors.

Now the company has introduced the Precision Carving System, comprising an angle grinder adaptor to which can be fitted any of three attachments. There is a small drum sander and a shaper resembling a router cutter, but for carvers the Precision Ball Gouge is easily the most important of the three, with a tungsten wheel on the end of a shaft. Paul Hayden at Westonbirt Woodworks was instantly impressed, seeing the tool's potential, and we have left it there for him to test, bearing in mind that Precision System costs about A\$153 online at arbortechtools.com.

Quick release

As the most frequent magazine for readers passionate about working wood by hand, we are fortunate to be able to promulgate products soon after they are released. Steve Harris, for instance, sent us an email telling us about his Shooting Star accessory, which has only just been released and is an add-on for using hand planes on a shooting board. "I have Lie-Nielsen and Veritas planes," he told us the day before we went to press, "but neither is very comfortable for prolonged shooting. I tried a couple of accessory shooting handles but thought I could do better. And I think I have."

The Shooting Star is made from solid brass, anodized aluminium for the button and stainless steel for the fasteners. "The button is designed to fit between the thumb and forefinger, and gives something to push against. It also adds heft to the plane, weighing more than half a kilogramme." Steve Harris says that his Shooting Star fits most brands of jack, try and jointer planes, and we have just received one for testing.

Shooting Star costs £74.50 at workshopheaven.com. These are early days for such an innovative product, aiming to offer a better solution (promises Steve Harris) than existing after-sales



Steve Harris's Shooting Star add-on handle for use on shooting boards was only released days before *Quercus* went to press. It is being stocked by workshopheaven.com for £74.50. The Arbortech Precision Carving System comprises an adaptor, drummer sander attachment and two cutters, of which the Precision Ball Gouge (right) seems to be the most suitable for carvers



handles for shooting board planes. We look forward to hearing feedback.

Rather more original in that it is hard to think of an alternative, is Daniel Berhe's Slöjdpung, a marvelous apron for carving which incorporates a cloth 'basket' to catch the shavings. It is a quite brilliant idea which can be bought from gortbaslojd.se for kr765 (£68/US\$92 today). We have one on order already, and the *Quercus* team will be fighting for a go for carving, and in our editor's case for his Sussex chair project, which aims to prove that an Arts & Crafts classic can be built on a kitchen table.

You can send a message to the designer Daniel Berhe @gortba.slojd on Instagram to learn more about

Slöjdpung. While you are on IG visit @tomcoxblacksmithing, who also works in Sweden. Tom has a forge on the grounds of the Sätergläntan slöjd college north of Stockholm, and we are blessed to have had a one-off small carving axe made by Tom as a replica of an axe posted by Anders Lindberg on @anderslindbergcom in December 2018. Anders told *Quercus* that his axe was made by a blacksmith now passed away, and he can't find anything similar now. That is until Tom Cox forged and handled one for *Quercus*, with an article showing the making of the axe set to be published in an issue soon. Perhaps Tom will make more. None of you can have ours, but you can email Tom at almosmedja@gmail.com.



Spooncarvers will cry with joy when they see Daniel Berhe's Sløjdpung (@gortba.slojd), as available by visiting gortbaslojd.se.



The small axe Tom Cox (@tomcox blacksmithing) has made for Quercus is based on one (left) shown in a post on Instagram by Anders Lindberg (@anders lindbergcom). Anders says the blacksmith who made his axe has died, and that he has never seen another the same size. We took it to Westonbirt to have a go. It is much loved





#CARPENTHER

April Wilkerson, Anne Briggs and Jenny Bower
making chairs with Greg Pennington

First Ladies

Tool engraver *Jenny Bower* reports how she became an enthusiastic woodworker first, and then a chairmaking addict with her friends April Wilkerson & Anne Briggs

As the last of the pine boards are being nailed to the walls and chandeliers are hung, my woodshop is nearly complete. The continuous arm chair I constructed sits near a freshly painted old woodstove with boxes of hand tools waiting to be lined up in the walnut tool cabinet as soon as it is in place. This previously ignored old shed that had been used to store lawn mowers, pool floats and sleds, is transforming into a space where the sounds of hand planes and hammering will fill its walls. The formerly cobweb infested corners are cleared unveiling useful space where furniture will be made as well as memories of my family and I working together on late nights and weekends with the fire keeping us warm. It's a scene I wouldn't have imagined just a few years ago.

I am a hand engraver. I began engraving experimentally and am self-taught by trial and error. I had graduated from college in English Literature, planning to be a teacher. However, I then chose to work for my husband Nathan's clock business and then transitioned into engraving. I had enquired about engraving through a local engraver but he was unable to take students at the time. My work is specifically known for the fancy embellishment I bring to hand-tools. The blank metal surfaces of calipers, hand planes, plumb bobs, levels and tape measures, become canvases I want to fill with flourishes of hand engraved art. Quite often, I gravitate toward hand-tools that look most neglected, old pieces whose patina has become dark and grainy. When I cut into the metal, I leave behind bright cuts that contrast with the dark aging of the tool's surface. The tool then becomes a piece of functional art. A caliper will no longer be shoved into a box in the corner, it will be out on a workbench or hung on a wall between uses, perhaps slightly more appreciated and cared for than it once was.

Though I'm familiar with many types of hand-tools, my personal usage of them had been previously quite limited. I became interested in hand-tools as a direct result of being married to a horologist, a fancy name for a clock maker. One of Nathan's favourite hobbies is collecting antique horological tools. Over the years he has amassed quite a collection and the



Jenny and her daughter, Maylin, shaping a chair seat

PHOTOS: JUSTIN MABLE & NATHAN BOWER & ANNE BRIGGS

thing that fascinates me most about these very old objects is that they are still functional and useful to him today. Not only are they useful, but they have a certain aesthetic beauty to them in their shape and curvature.

Clockmaking by hand

My appreciation for hand-tools grew quickly. Each time I hand engraved one, I became more curious about engraving another. I also became more curious about the vocations in which these tools were used. Much of my Nathan's clockmaking work is done by hand, from the cutting of the gear spokes with jewellers' saws to the hand filing of the gears with dozens of little files. My respect for handcraft deepened watching him work quietly with unpowered tools and spiraled into a desire to learn more about other types of handcraft including traditional woodworking.

The woodworking community has been a large supporter of my hand engraving. With the common bond of an appreciation for quality hand-tools, I've formed friendships with many craftsmen who purchased my engraved vintage tools or asked to commission my hand engraving on their personal items. At any given time, I have several engraving commissions lined up. I've worked for some well-known Instagram woodworkers, like Ramon Valdez, Philip Morley, Jason Thigpen and Izzy Swan. In between custom-engraving orders, I also like to work on tools, jewelry or other items to have to hand to sell.

I began designing and engraving custom badges for makers of workbenches, hand-engraved escutcheons for furniture builds, meeting more and more craftsmen along the way. Mark Hicks of Plate 11 Workbench Company has commissioned me to make badges with serial numbers for his benches and shaving horses. I have engraved some components for custom handsaws made by Florip Tool Works. I have worked with several individual makers to create plaques and badges for items they make with



Jenny with chairmaker Greg Pennington in his Tennessee workshop

their names and the dates of construction; for boatbuilders, for cabinetmakers. And custom badges for machines, toolboxes and tooling in craftsmen's workshops, hinges for furniture-makers, not to mention bands for turned duck calls.

Along the way, my woodworking friends have encouraged me to give woodworking a try in some form, but I had no idea where to start. Our local community college sends out fliers each semester offering classes for the public. In one flier I noticed a course for women wanting to make a Windsor chair. It was a weekend class that would cover some of the fundamentals of hand-tool use and chair construction. We ended up making benches in that class but it got me started in some of the basics. My instructor said that there was an opening in his next class, and that if I wanted to make a chair, I could come back again. I found connections between this form of handcraft and my metal engraving. I wrote about it on my Instagram page. "While hand engraving or hand lettering, I'm consistently practising making the curvature of my designs look and feel natural and fluid. It's interesting to me how that applies to many forms of handcraft. Somehow a hunk of wood with jagged lines and rough edges becomes a smooth, formed chair seat. This was my favorite part of working with hand tools, gently shaping the hard edges into curves. There's something that is intoxicating to me about doing that by hand and eye. You get into the zone, you see something start to take shape and you don't want to quit until that curve is juuuuust right. It's tactile, it's real and it's involved. It's not pushing a button on a machine...it's moving, seeing, studying, slowing down and being in the moment."

Bitten by the bug

Being bitten by the woodworking bug left an itch I needed to further scratch. Though these weekend classes were an excellent start into chairmaking, they weren't a traditional Windsor style and I wanted to dig deeper. In the fall of 2019, I travelled to Tennessee, along with two of my friends, to learn from chairmaker Greg Pennington in his incredible timber famed workshop. My two friends, Anne Briggs and April Wilkerson,



Jenny engraved this handplane for Greg Pennington and used it in her continuous arm chair build



Custom hand-engraving to a Lie-Nielsen plane (above) and a handplane made by Tony Rouleau, also by Jenny Bower (below)

A hand-engraved Starrett caliper (above) and tools from Jenny's personal collection (below)



are both experienced and well-known woodworkers. Though they are extremely encouraging friends and Greg a kind and experienced teacher, the continuous arm design I chose, intimidated me greatly, as well as using many hand tools I hadn't used in my previous classes. Over the course of the week, I became more confident with each step and fell more deeply in love with the sounds, smells, tactility and challenges of woodworking.

Fully fledged

A few classes do not make one into an experienced, skilled chairmaker, or turn a hand engraver into a full-fledged woodworker. I have too much respect for these crafts to call myself either one. I'm a novice, a beginner, I'm still learning; I don't think I'll ever stop learning. That is the beauty of handcraft to me, skills grow, fields of study can intertwine, friendships form, and creativity can explode into collaborations I cannot anticipate. Today, as I look across the shed-turned-woodshop that is nearly complete, I'm excited. I'm excited not only to learn

more about woodworking and its applications, I'm excited to share that excitement with my daughter, Maylin. She walked into one of my woodworking classes, saw a travisher, and without hesitation asked, "Can I try that?". Showing her how to skew and slice the wood, we tried a few swipes together and then she tried on her own. She was smiling and laughing because it was unlike anything she'd ever tried before.

As I've been writing, I realise how my interests in handcraft are of particular interest to my daughter. With both of her parents as artists/makers, she has a host of opportunities before her to learn and explore the worlds of art making. As we begin to teach her different elements of handcraft, I'm amazed at her own style and ideas as well as her innocence and confidence in saying: "We could make that!"

We've turned an old woodshed into a tiny shop with the hopes of spending time in there as a family, building things together.

To commission engraving work done by Jenny visit jbowerengraving.com.



Jenny finished gluing and painting her continuous arm chair (left) at her home in Michigan. A custom-made wax seal stamp (below). Jenny turned the walnut handle (above) and hand engraved the monogram





Running Forwards

Derek Jones searches for perfection in fitting drawers in a solid carcase



It's generally accepted that drawers made with hand-cut dovetails are a sign of good quality and although this article is not about dovetails or drawers, it should appeal to those seeking perfection in their case-work in general.

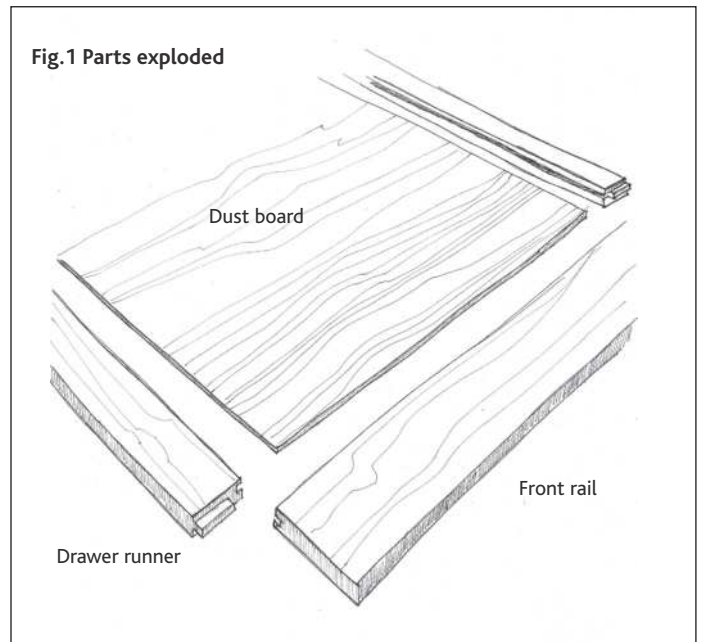
For solid case construction, as opposed to a frame and panel, the maker is faced with a couple of options to create the divisions between the drawers. The most obvious is a board similar to the top and bottom, cut shorter and let into the sides with either a dado or through mortise and tenons or sometimes both. It's a simple enough idea and not without its merits. The grain direction on all these components

is aligned in such a way that the ensemble can expand or contract without tearing itself apart in the process. Many items of furniture rely on this method of construction for that very reason. The downside however is that it uses a lot of good material that will never see the light of day and on large pieces it adds significantly to the overall weight and makes gluing up a good deal harder.

An alternative method is to use runners – not to be confused with drawer sides, which are different and may well be the topic of a second article on this subject. Runners are strips of wood fixed in place after the case is assembled and can, with a little know-how, be replaced or repaired should they become worn. The technique for making them is simple. Front rails are made up to a depth capable of accommodating a drawer stop plate and grooved on the back with a channel that will accept a thin panel widely referred to as a dust board. These panels can be made from inexpensive timber, preferably light weight, and make good use of boards that would not be suitable for show surfaces. Duplicate rails are made to the same specification and cut into sections to form the runners. Dados are cut the full width of the case sides in the same way you might prepare to add a fixed shelf. These are used to accommodate the rail and runners and keep them aligned, including the groove.

Stub tenons

The job is complete after a stub tenon has been created at the front of each runner corresponding with the groove in the back of the front rail. Assembly is perhaps not what you'd expect. The back end of each runner can be shaped to take either a



nail or better still a slotted screw and loosely fastened into the dado without glue. The front rail is then offered up with glue being applied this time to the ends and to the stub tenon. Clamping front to back pulls the runners into the rail. I prefer to leave the rail a little proud of the front face of the sides at this point so they can be levelled off later.

When you're satisfied with the fit tighten the screw at the back of the runners to set them in place. To complete the assembly slide the dust board into the groove without glue and that's it, you're done. Of course all this is a great deal easier if your back boards are not fitted, and why would they be? It's much easier to fit drawers that way as you can often gauge where a drawer is sticking.

Some variations on this construction include using sliding dovetails on the ends of the front rails. It's a bit more work obviously and acts like a brace across the front of the case preventing the chest from bowing out at the sides. If cut accurately it also negates the need for long heavy clamps.

Replacing worn runners on period pieces is fairly straightforward especially if you can remove the back panel. First remove the dust board then undo the screw or prise the nail loose and wiggle the runner. You usually find they dislodge quite easily. If the groove was originally run in the centre of the runner you can sometimes just flip them over and swap them left to right and re-use them. If not you've got a perfect pattern to make a new pair.

One other thing to consider when using runners like these is to cut them short of the back panel. If the case sides shrink they can push the back panel off or worse unseat the front rail and force it proud of the front.

Fig.2 Clamping

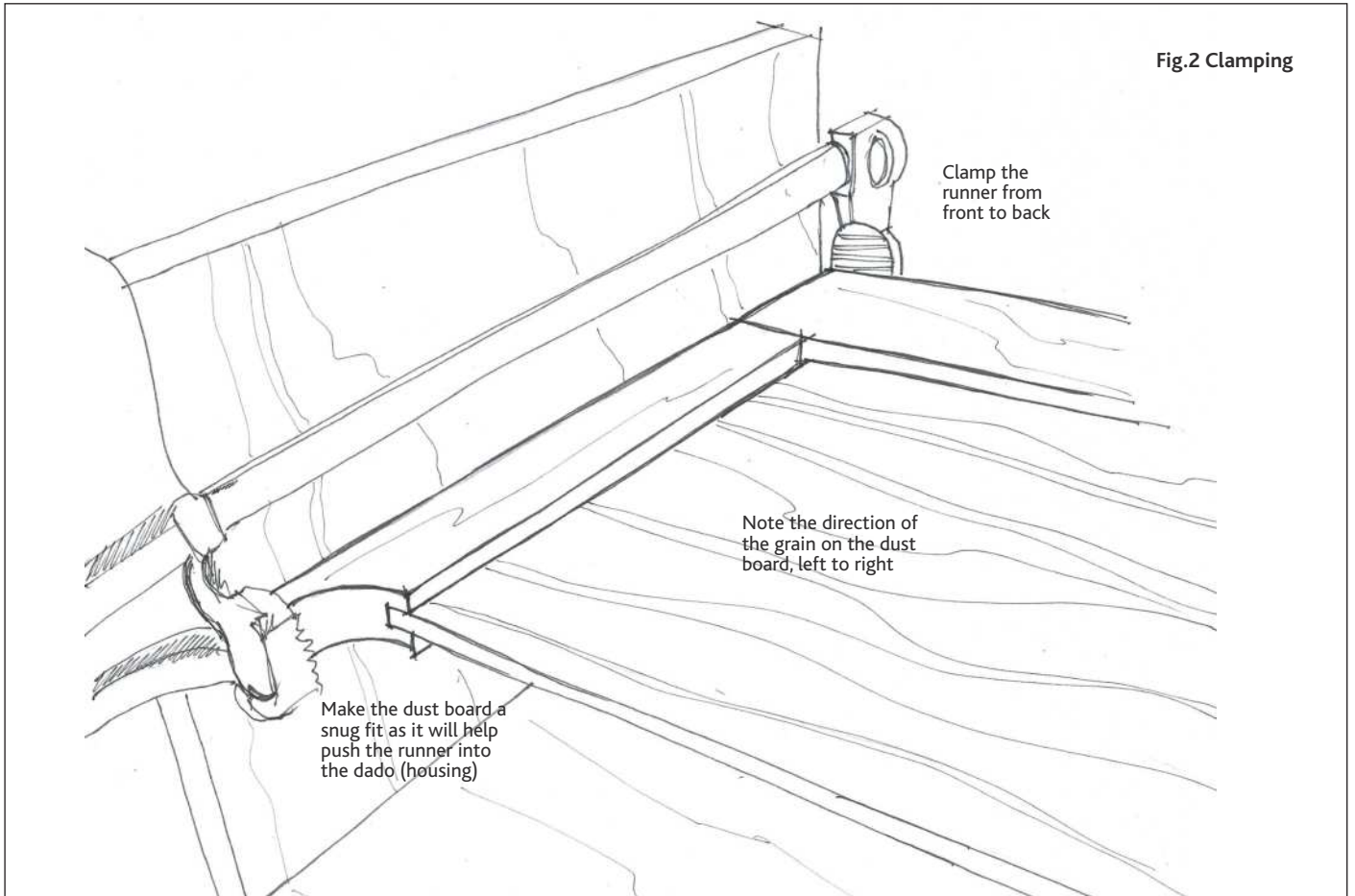
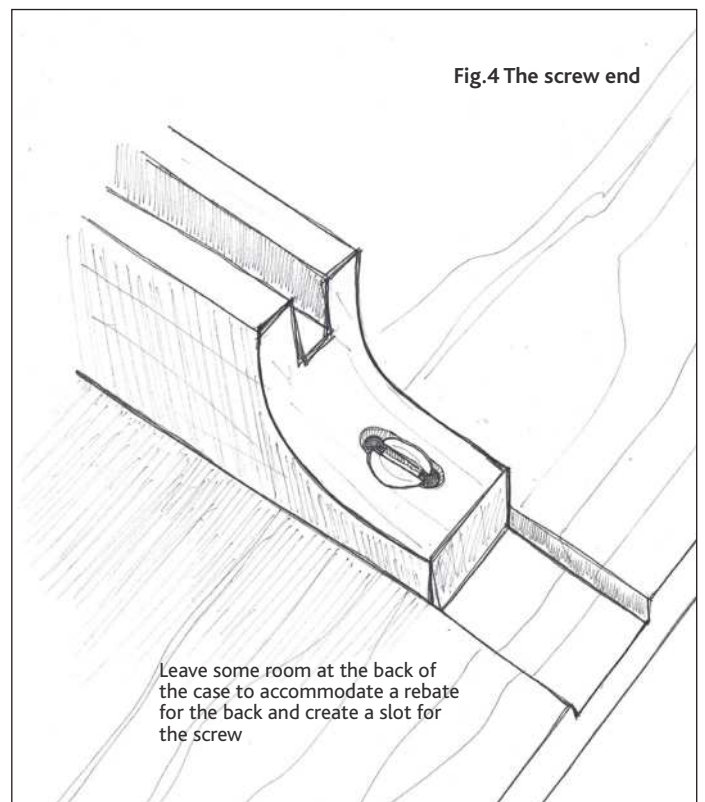
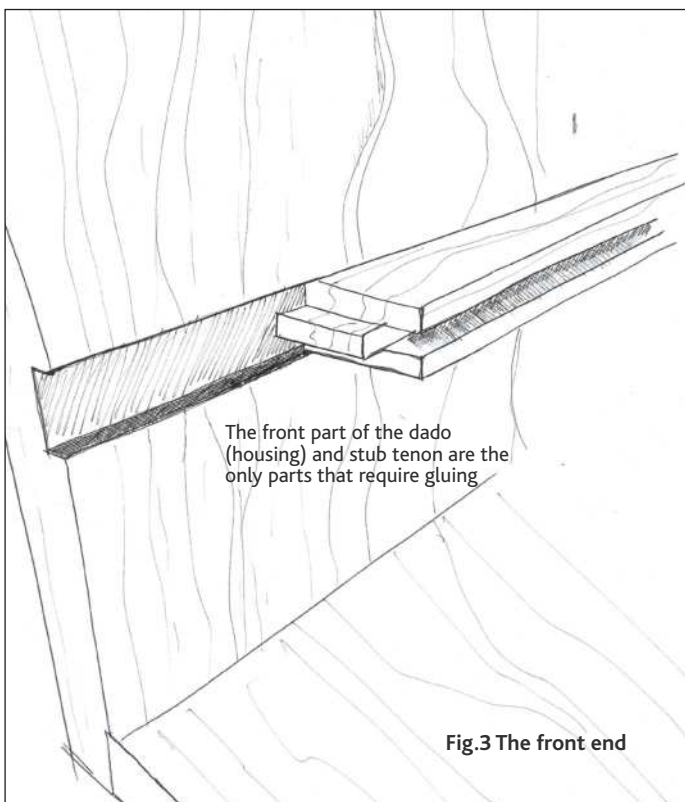


Fig.4 The screw end



The front part of the dado (housing) and stub tenon are the only parts that require gluing

Fig.3 The front end



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15 Sticks & Two Boards

Robin Gates deconstructs Gerrit Rietveld's provocative Red Blue chair

It's almost a defining quality of the avant-garde that it makes us feel uncomfortable, but a design so radical that it goes on doing that for over a century must deserve a different label. Or perhaps Gerrit Rietveld's Red Blue chair, designed and built in 1918 and still provoking discussion in 2021, defies labelling altogether. To my mind, lumping it with all those too-familiar artefacts described as 'modern classics' and 'icons' is to do it a grave injustice. This chair was designed in revolt against the 'classics' by a prime mover of a group that was by its own definition iconoclastic.

Looking at the Red Blue chair through half closed eyes my overall impression of the form is of bright colours and a semi-reclining relationship of seat and back conjuring lazy hours in a seaside deckchair. I can almost feel the waves washing around my feet and catch the first notes of a brass band striking up a tune on the esplanade. But now that I'm opening my eyes wider and registering the bare bones of this chair I'm seeing something more austere. That skeletal framework of 15 bare sticks and two hard boards suggests a theoretical model of a chair's DNA that might have been assembled by Crick and Watson using odds and ends of laboratory apparatus. This is not a comfy arm chair for a snooze or even to contemplate, but perhaps one to offer a visitor that you hope will be going soon.

Over the months since *Quercus* photographed this one, which is owned by chair designer and collector Alan Zoefig (whose sleekly-styled airport seating is almost certain to have taken the weight off your feet somewhere across the world), the design has grown on me, and I'm almost tempted to build one. You can do so yourself by reading *How to Construct Rietveld Furniture* by Peter Drijver and Johannes Niemeijer (reviewed overleaf). What the Red Blue chair may lack in sympathy for the human frame it more than makes up for in social significance and contributions to art. "Typically no one calls this a comfortable chair," writes Galen Cranz in his 1998 book, *The Chair*.

"Designers, artists, critics, and historians admire it, instead, for its conceptual clarity. How ironic, then, that I find it one of the more comfortable modern chairs. In order to keep the sitter from sliding out of the chair, it is tipped back. The designer then accepts the consequence of being rotated back in space by extending the back support all the way past the shoulders and head. Thus, it does not require you to bring your head forward, increase the thoracic curve of the spine, and thereby collapse your rib cage. This is a great virtue."

Wartime prevailing values

In a roundabout way this design grew out of the tragedy of the First World War and more particularly what a politically left-leaning group of Zurich artists saw as the prevailing values in society which had led to that conflict. For their movement they adopted the name Dada (the origin of which remains uncertain), standing firmly against the conformist aesthetics of a hierarchical European establishment built upon capitalism, nationalism and war.

Dadaism is all about the abstract rather than the concrete, it's about the irrational and illogical, a complete jumble of things,



PHOTOS: NICK GIBBS

'No one calls this a comfortable chair,' writes Galen Cranz in *The Chair*. 'In order to keep the sitter from sliding out of the chair, it is tipped back. The designer accepts the consequence of being rotated back in space by extending the back support.'

in a word – chaos! But how is that going to work for a chair? Without a certain orderliness of legs, seat and back we'll soon be sitting on the floor.

Meanwhile in the Netherlands a group of artists sharing the aims of the Dadaists, and centred on the Dutch painter and poet Theo van Doesburg, found its voice in a movement and a magazine called *De Stijl*, which means simply 'The Style'. From that clue alone, and with the Red Blue chair in mind, it seems 'de functie' (the function) would have to take a back seat to looks, and that comfort might have to be sacrificed on the altar of social protest.

Given that Gerrit Rietveld served an apprenticeship from 1899 (aged 11) in his father's joinery business, it's no surprise he set up as a furniture-maker on his own account (in 1917). What looked like being a straightforward continuation of family and furniture traditions was about to be overturned. The young Rietveld had also gained experience working with a draughtsman and a jeweller, and studied architecture. Undoubtedly he possessed the skills to knock out the mortises, tenons and dovetails of heavyweight 19th Century furniture. Now equipped with drawing ability and an eye for the settings and colours of jewels, it seems the catalyst of youth and, not least, the gross human wastage of war, drove him to break with what had gone before. From the outset he was determined that his furniture would be distinctly, even alarmingly different. A Rietveld chair would look like a Rietveld chair.

And so it was with his Red Blue chair, which was almost the



first product of his workshop when he opened for business in 1917. For the first several years this all-wood chair wasn't painted (so you would not have wondered, as I did on first sight, that it might be made of box-section steel tubing and plastic). From a practical viewpoint, Rietveld's vision was of a design which reduced a chair to the essence of functionality, shedding all upholstery to leave only the legs, stretchers, arms, seat and back it stood up in. Here was a chair about as honest as a chair could get, with ne'er so much as a chamfer to soften its truth.

Part of his intention, at least, was that it would be easy to build. Sweeping aside the traditional joinery he had learned as a boy, for this chair the verticals and horizontals (as *De Stijl* would call its parts in preference to the conventional terminology of chairs) were of rectilinear timber in stock sizes available at any timber yard, meeting face-to-face at the junctions and with ends protruding, attached as simply as could be using dowels. The seat and back were attached by nails.

A Dutch stick chair

Surely this design is a gift for the amateur to build. With all those sticks involved I'd even call this a 'Dutch stick chair'. There's none of that laborious adzing of a saddled seat, tapering of legs, shaving of stretchers and spindles, tricky calculations of angles or steaming of armbows that you wrestle with in building the Windsor or Welsh variety.

Amateur building aside, putting his own idea of production building to the test, Rietveld opened a factory within a year of opening his small workshop, and it was around that time, 1919, that he officially joined the small but, in the long-term, highly influential *De Stijl* movement.

You can dive into eight volumes of the *De Stijl* magazine, curated by the University of Iowa as part of its International Dada collection, at http://sdrclib.uiowa.edu/dada/De_Stijl/index.htm where you'll find Rietveld's chair pictured on page 132 of the September 1919 issue, at http://sdrclib.uiowa.edu/dada/De_Stijl/2/11/pages/132c.htm

In the accompanying notes editor van Doesburg suggested the chair was an example of the 'sculpture' that would typify a *De Stijl* interior, also saying "Our chairs, tables, cabinets and utensils are the new abstract-real images." Rietveld's own comments highlighted his attempt to present each component in its singularity but in such a way as to be harmonious with the rest of the structure. Gerrit Rietveld was alluding to the absence of traditional joints, in which each part invariably loses something of itself through its attachment to another, when he said: "The construction co-operates in connecting the parts undiminished, in such a way that one dominates the other as little as possible or makes it subordinate to itself, so that the whole stands above all free and clear in the space and the form wins over the material."

Someone unknown happened to suggest to Rietveld that the grid-like supporting framework and flat expanses of seat and back of his chair had the makings of a Mondrian canvas, characterised by intersecting horizontal and vertical black lines with here and there a rectangle painted in a primary colour. Hence the blue seat, the red back, and the black sticks with their squared ends painted yellow.

With a measure of artistic completeness surely not enjoyed by any chair before or since, in 1924 the Red Blue chair took up residence in a house (the avant-garde Truus Schroder), for which had been designed. Standing against a black wall on a black floor the black framework of the chair all but disappears, leaving the seat and back apparently slung in mid-air as casually as the seaside deckchair. It's a neat trick, and one of many in a house which also features innovative slide-away



Against a black floor and walls the chair all but disappears, leaving the seat and back apparently slung in mid-air

walls, fold-away tables and windows which open whole corners of rooms. The authentically restored house is now managed by the Centraal Museum of Utrecht, and as an introduction to not only the house but also the *De Stijl* movement and Rietveld's other designs I'd recommend the virtual tour presented on the UNESCO YouTube channel at <https://youtu.be/JHlZCg1D2xs>

Alan Zoeflig bought his chair in the 1960s. "I'm lucky to have owned a Red Blue chair for many years. I pass it every day and draw continual inspiration from its simple beauty. At that time Carole [Alan's late wife] was taking a weekly magazine called *New Society*, which was a bit left wing. I had long admired John Berger's writings and TV programmes, and read a particular article of his about the Red Blue chair."

"This chair," Berger wrote, "eloquently opposes values that still persist: the aesthetic of the handmade, the notion that ownership bestows power and weight, the virtues of permanence and indestructibility, the love of mystery and secrets, the fear that technology threatens culture, the horror of the anonymous, the mystique and the rights of privilege. It opposes all this in the name of its aesthetic, whilst remaining a (not very comfortable) armchair."

"It proposes that for man to situate himself in the universe. He no longer requires God, or the example of nature, or the rituals of class or state, or love of country: he requires precise vertical and horizontal co-ordinates. In these he will find essential truth. And this truth will be inseparable from the style in which he lives."

Lines and Planes

Robin Gates buys a book to build Rietveld furniture

At a time when our ecologically over-bearing species must rapidly become more self-sufficient and less wasteful of resources here's a wonderful book that'll help us do just that – *How To Construct Rietveld Furniture* by Peter Drijver and Joanne Niemeijer. For my money (I paid £24) it's an excellent guide to the construction of domestic pieces from one of the most innovative 20th Century designer-makers, Gerrit Rietveld.

Driven by the De Stijl movement's revolutionary artistic ideals, Rietveld aimed to spatially reorganise familiar forms of furniture without losing their functionality; with varying degrees of success, you might say, but I find the novelty of his ideas as irresistible as a box of Meccano. For each piece – chairs, tables, desks, bookcases, toys – authors Drijver and Niemeijer provide crystal-clear scale drawings, a cut list, step-by-step instructions and background information with fascinating nuggets of historical context. Colour photos of finished pieces add a touch of art gallery glamour, and isn't it nice to browse a woodwork book unencumbered by yet another how-to on cutting the dovetail joint! There's no need – it's all done with dowels. This is also a good book for fostering English-Dutch understanding because the text is given in both languages; you'll soon know your *rugplank* (back) from your *zittingplank* (seat).

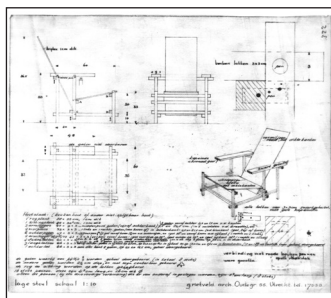
Some designs may call for a leap of faith in believing they'll prove as practical as they are sculptural. The Berlin chair, for example, is described as 'a construction which appears to be usable as a chair only after some inspection of the measurements. The emphatic asymmetry...is not in accordance with ergonomics.'

But having chosen your piece you'll not need to lavish a small fortune on acquiring traditional cabinet-making skills or exotic materials. In distilling the essence of furniture to lines and planes Rietveld dramatically simplified the joinery with *ronde beuken pennen* (round beech pegs) while also specifying the kinds of timber we can find at our local DIY stores.

And in bold contrast to the complex mouldings and carvings suffocating the furniture of his day he opted for unadorned wood or the primary colours of the De Stijl movement's master of the jolly neo-plastic paintbrush, Piet Mondrian.

Whether you consider Gerrit Rietveld's designs 'fine' woodwork or 'heirloom' furniture depends on what you consider fine or worth passing down, but I'd say these refreshingly different designs tick both boxes. An intriguing Red Blue chair in our native beech, or a simple piece of 'Crate Furniture' (looks as it sounds) in plantation fir, would surely be a more welcome inheritance for the next generation than something imitating the rainforest-depleting monstrosities bequeathed to us by environmentally reckless ancestors.

Details: How To Construct Rietveld Furniture by Peter Drijver and Johannes Niemeijer, published by THOTH, The Netherlands, 2015, softback, 128pp.



The Chair by Galen Cranz

WARNING! Ensure you can access Google Images before reading any further. Considering he is so praiseworthy of *Red Blue* comfort, you'd be surprised to learn how diffident Galen Cranz is about the classic *Eames* office lounge. "While the chair may look modern," Cranz writes in his maker's bible, *The Chair*, "it offers little comfort for anyone." He is even more scathing of the *Butterfly*, with its canvas slung in a frame, so familiar now on campsites and at festivals as a folding sling for slouching: "The torso is treated like a bag. In adults the internal organs collapse and the hip joints are jammed."

It is the section, *Some Famous Chairs Evaluated*, that is so fascinating in the context of the *Quercus* study of *Red Blue* (1918), which you should notice is chronologically the earliest of the Modernist chairs Cranz lists. He starts with Marcel Breuer's *Cesca* (1928), the original of which had a caned seat, which inevitably sags. Cranz damns this as the 'sit bones' don't receive much support, dropping below the front rail which consequently cuts off circulation. He points his finger likewise to the pre-20th Century caned Thonet's, which also suffer from sagging cane, and it is no surprise many old examples have had the cane replaced with drilled plywood, dipping a little and offering 'ventilation'.

But with Thonet we step back in time, 50 years earlier than even *Red Blue*. Significantly, which all chairmakers should note, Galen Cranz is happier with Breuer's *Wassily* (named after his friend Kandinsky in 1925), except that the back and seat are angled at 15°, so the chair offers no support for the neck and head. "It means the occupant is thrown so far back in space that to get out of the chair many people have to gather momentum and lunge out."

That's nothing, writes Cranz, compared with Mies van der Rohe's *Barcelona*, with seat and back held on an X-shaped framework. The 1929 chair, which was designed for the German pavilion at a World's Fair in Catalonia, forces the sitter to lean back into the chair, as did *Wassily*. "Getting out of this chair becomes a real issue because you are thrust so far into it," comments Galen Cranz, who then continues to make a side-swipe at Le Corbusier's 1928 *Grand Confort*, which the author says people commonly describe as 'looking like a great chair to sink into'.

"Yet this chair too violates ergonomic and somatic principles," Cranz adds. "Those who call this chair comfortable obviously are defining comfort as some combination of yielding softness and sensuous surface, not postural or structural comfort over the long run." Cranz goes on to quote a critic who shares the conclusion that *Grand Confort* doesn't meet expectations: "When you sit in it, it slowly slides you forward onto the floor with your knees up, and breaks your spine by reverse flexure in the process."

And so it is that Galen Cranz reaches *Red Blue* in *Some Famous Chairs Evaluated*. "Although this chair was designed, apparently, to be expository, it ends up providing longer-term comfort than any of the others in this section." NG



Eclipsing a Honing Guide

Returning to a valuable tip, *David Charlesworth* adapts an Eclipse honing guide

The Eclipse 36 has always been my favourite honing guide as it is simple, reasonably priced and will cope with the majority of your honing needs. I am a passionate advocate of guides as they allow woodworkers to work with tools as sharp as mine from day one of a course. The repeatability of metal removal speeds up the sharpening process, reducing the number of strokes on the stones.

The side-clamping blade holding is totally secure unlike so many of the top mounted screw clamps and bars. I think the unwary are seduced into thinking that a wide roller will automatically produce a square edge on a chisel or plane blade, but this will only happen if the tool is perfectly aligned in the guide. In reality this is difficult to achieve, and the problem is compounded by the wide roller dictating to the tool and preventing one from correcting small errors of squareness at the blade's edge.

The narrow roller of the Eclipse can be easily over-ridden (tilted) and an out of square edge can be simply corrected by using different pressure with each forefinger; the forefingers being placed at either side of the blade, near the edge. Greater pressure on the stone results in faster metal removal, so with each stroke a crooked edge can be eased back to square. If the edge is square one just uses even finger pressure on each side.

Cambered plane blade edges which are not possible with the wide straight rollers are also easy to produce with the Eclipse.

Modified guide

I made a modified Eclipse so that some of the thick-shafted Japanese chisels and larger Lie-Nielsen chisels would fit properly. The aim is to extend the distance between the bars and the underside of the locating lip by fixing a plate to the plane blade bed and filing away most of the existing V-shaped grooves. The idea is simple enough but I soon hit a snag. In order to file away the grooves in the jaws, I would need to take the guide apart. Now old Eclipse models and the recent Spear & Jackson versions have a cross pin which secures the tightening knob, allowing disassembly. Far Eastern copies do not.

Both jaws were filed at about 5-6° to the vertical. One is straight and the other is curved for secure clamping. It is not necessary to completely remove the existing grooves, and these act as a useful tell-tale.

Two plates are then made up to sit on the plane blade surface. They overhang the jaws by about 1.5-2 mm. This limits the size of smallest chisel which can be held. I fixed $\frac{1}{8}$ in brass plates with No.4 x 4BA countersunk head, stainless screws. These materials and taps can be obtained from model engineering suppliers like GLR (glrkennions.co.uk).

The modification has proved to be a great success and I know of several others who have made similar versions.

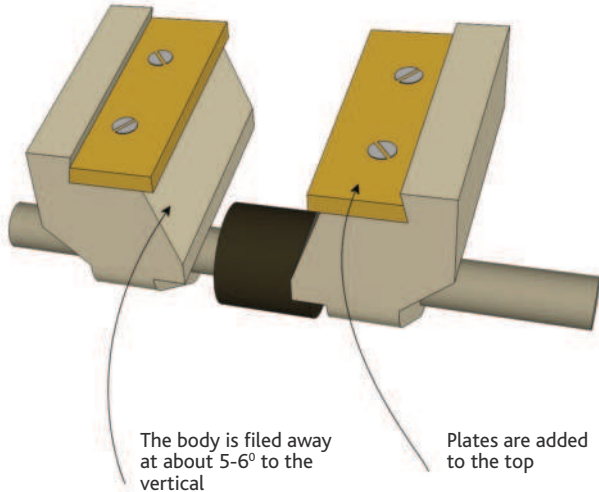
David Charlesworth runs furniture making courses in Devon. You can find out more at davidcharlesworth.co.uk or by calling 01237 441288.



David has his waterstone sitting on a rubber mat available in the 'home & leisure' section of the medical products shop, dycem.com. His measured 35x25cm. On the original Eclipse version of the honing guide there is a pin you can tap out so the knurled knob can be removed

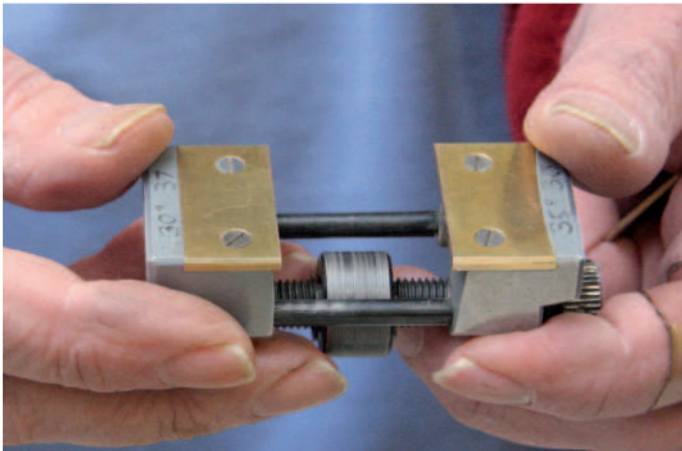


Modifications to the guide



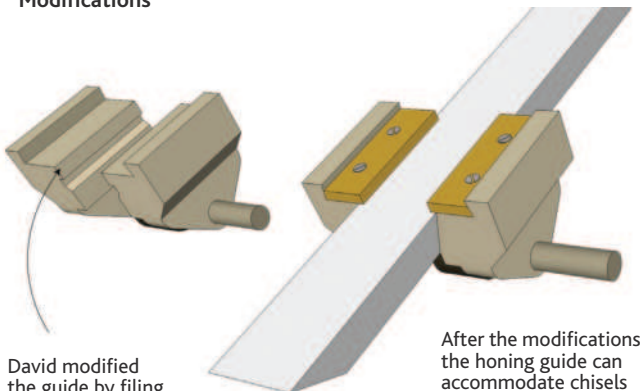
The body is filed away at about 5-6° to the vertical

Plates are added to the top



David added the retaining plates to hold Japanese chisels square, and he filed back the jaws for thicker tools. The numbers on the top relate to projection for specific angles

Modifications



David modified the guide by filing back the body and added plates

After the modifications the honing guide can accommodate chisels with a thicker shaft, such as mortise or Japanese chisels

The Guide-Setting Jig

How to set a honing guide the Lie-Nielsen way



Before Lie-Nielsen had introduced their own honing guide, *Quercus* was just a twinkle in John Brown's eye, Deneb Puchalski demonstrated how he had devised a jig with a series of stop blocks to align a blade for sharpening.

The jig had five stops at intervals of 5° from 25° to 45° to set the appropriate projection. He then worked from 1000 to 8000 grit Shapton ceramic stones to create primary and secondary bevels. He also had a 2mm shim to raise the angle by a couple of degrees to produce a tertiary or micro bevel with the 8000 stone when he's in a hurry. On plane irons he'll let the secondary bevel 'grow' but tends to 'knock it back' on chisels every time.

That was then (in 2010!) and this is now, when Lie-Nielsen have their own honing guide and a rather snazzy manufactured version of Deneb's angle-setting jig. Despite that they provide an excellent downloadable free PDF of Sharpening Instructions which even provides projection distances for an Eclipse honing guide. You can download this at lie-nielsen.com/pages/downloads.



The Lie-Nielsen Honing Guide has seven additional jaw shapes



Restoring a Stanley 151

For such a simple tool, asks *Mike Fewster*, why do people find it so hard to master

For such a simple tool, it's surprising how many of us find the spokeshave so difficult to master. Like most of the tasks we undertake in woodworking, the quality of the end result comes from a combination of technique and the quality and set-up of the tools we use.

There is certainly no substitute for experimentation and practice and this can go a long way to help improve our results. Since I started dabbling with chairmaking I have found three or four pointers that turned me from a fumbling embarrassment into a moderate achiever. Angle the spokeshave to the direction of the cut. Use a light touch; it's not a tool to force or to try to take too heavy a cut. Work with the grain: a concave shape should be cut from both ends working towards the middle. Try pulling as well as pushing. I've not reached the stage where I do most of my shaping on the pull.

My own experience has been almost exclusively with metal spokeshaves, and I currently have three on the go: a flat-based Stanley 151, a round-base Record A151 and a round-base Veritas. The Veritas was a bit of an indulgence and it certainly is a beautiful piece of kit, but surprisingly my favourite and the one I use for perhaps 90% of my work is the flat-sole Stanley 151. The round-based ones only come out when I have to tackle the tightest concave shapes.

When it came to refurbishing my Stanley, much could be learned by looking at the Veritas to see what makes it such a premium tool. Quite simply it has a precisely-machined base, a good-quality sharp blade which is well seated in the body and it has a tight mouth. The first move was to buy a Ray Iles replacement blade from workshopheaven.com for a modest £6 this was certainly a worthwhile investment. This blade is 3mm thick compared to the original 2mm-thick Stanley and it certainly takes a beautiful edge. When it came to the cast body, first I flattened the base. This was done with 220 grit before moving on to a 1000 grit diamond plate. I gave it a final polish on a 4000 grit waterstone.

Next I did what I could to flatten the bed and take out any high spots with a file. My Stanley (probably a 1960s version which



The Stanley 151 (at the front), the Record A151 (middle) and the Veritas at the back. Mike uses the Stanley more than the others, perhaps because it is the only one with a flat base, and so he has decided to refurbish that one, flattening the base on 200 and 1000 grit diamond stones

I bought for £10 at a woodworking show) was quite rough in that area and certainly wasn't providing a good flat support for the blade. The final operation on the body was to take a file to the mouth. I found that with my new 3mm-thick blade the mouth was almost too tight and needed to be opened up slightly. This operation needs to be carried out with care and by continually reinserting the blade to ensure an even gap. If the mouth is too large, it's fairly easy to make a thin shim to place under the blade which will narrow the gap for fine work.

When it comes to sharpening, the key thing is to get a razor-sharp edge on that blade. I've never felt too confident about

sharpening tools freehand and have always been a fan of the simple honing guide. A spokeshave blade is too short to fit any of the guides I've tried, but it's a simple job to make a jig that will hold the blade for you. I made mine from an offcut of oak and with two brass screws with their heads cut off to position the blade and then a round-headed screw to enable the cap iron to clamp the blade down you can use the assembly in a traditional honing guide just like a plane iron. A couple of hours work will produce a tool that should perform any bit as good as the premium spokeshaves. Now, back to working on that technique!



A jig for a honing guide to hold a spokeshave blade was made from an offcut of oak. Two brass screws, with the heads removed, position the blade with a round-headed screw using the cap iron to hold the blade. The bed needed to be flattened with a file, and Mike bought a Ray Iles 3mm blade for £6 to replace the 2mm original



The Double-Duty Lamp

Needing focused lighting and a tidy supply of pencils, *Ethan Sincox* makes a stand

Lately, focused task lighting has become a priority in my shop. That will probably continue until I break down and buy a set of reading glasses for up-close work, like when I'm restoring an old tool or inlaying. But it also gives me a chance to do something I enjoy that is not-quite woodworking, which is hunting down inexpensive shop lamps and fixing them up.

My most recent restoration project is a Fostoria shop light that had lived in a machine shop for many years. It was not in working condition when I took delivery of it. Rewiring a lamp is not usually a big deal but removing 50 years of shop grease, grime, oil, and black paint overspray, all while maintaining the original painted surface, can take a bit of time.

Even after I cleaned it up and fixed the wiring, the lamp still needed to be mounted somewhere. I didn't think a semi-permanent lamp screwed to my bench was the right way to go, so I set about trying to design a base. My first attempt was functional and used the existing dog holes to make the base mobile along the back row. But after using it for a week, I felt like I was still missing an opportunity, so I scrapped it and started to plan for a better base.

The items I misplace most often in my shop are always the little things: pencils, pens, marking knives, dividers, my small 4in double square, my portable pencil sharpener and the like. I first tried to solve this problem by mounting a Saddlebag made by Texas Heritage Toolworks (\$80, txheritage.net/saddlebag) onto the bench. The Saddlebag is a 12-pocket canvas organizer for smaller tools, like pencils, squares, and rulers. Unfortunately, because of how I have my bench laid out in the shop and how I use it, the only viable space was on the left end. On my right-

handed bench, it seemed to collect dust and shavings just as well as it held small tools. (For the record, the Saddlebag is an excellent product; mine now lives in my traditional tool chest where it holds all those smaller tools when they aren't needed on the bench.)

As I pondered base ideas, I realised this was my opportunity to solve my small item organisation while I created a base to mount the new shop light. Additional inspiration struck me when I remembered the paint brush holder currently sitting on my second bench that was made by my maternal grandfather. He was a woodworker and graphic artist and used reclaimed Douglas fir to make the holder 60 years ago. I had it on loan from my Mum, who still uses it to hold her paint brushes, so I could copy the form as something I might offer for sale. The only other additional design idea I wanted to incorporate was the ability to angle the base left or right so I could more accurately direct lighting when necessary. With Grandpa's brush holder and a sketch pad in front of me, I started drawing some ideas.

Lately I've been saving up for a very special woodworking hand-tool, something of a present to myself, so I tried to be thrifty with this project. My total cost was about \$53 (£40). I found the Fostoria shop lamp locally through Facebook Market for \$35 (£26). Normally these lamps command a much higher price. This one was inexpensive because the wires had been clipped and it was absolutely filthy. But a few hours of work with my favourite cleaner, CitraSolv (£23.26, only at amazon.co.uk), left the lamp looking fantastic. CitraSolv is a citrus-based cleaner and degreaser. I used it in full concentration with a white nylon pad to remove 75 years of caked-on grime and even black spray paint from the lamp without harming the original finish. Then I replaced the old wiring with a new vintage-look, cloth-covered cord (\$18, or about £13.50). The old-growth, reclaimed longleaf pine (*Pinus palustris*) was offcuts from an earlier project (a fixed bench in my old shop), so I didn't attribute a cost to it. I'm sure you have something similar hanging around in your shop. If not, it shouldn't be too hard to dig something up.

Building the lamp stand

I always have a variety of interesting timbers on hand. The two blocks of reclaimed pine were the most readily available, so I jointed mating edges and glued up a block that was 9in long, 10in wide, and 3in high. In order to make the base sit securely



Having tried using a Saddlebag from Texas Heritage Toolworks (above left), Ethan took inspiration from the paint brush holder (above right) his grandfather made from Douglas fir 60 years ago



The lamp stand is a combination of lamp holder and organizer

on the bench, I allowed for an overhang on the back where a $\frac{3}{4}$ in cherry dowel referenced the far edge of the bench top, creating a pivot point. By lining up one of the three chamfered through holes at the rear of the base with a dog hole from the back row of the bench, I was able to lock the base in place by inserting a $\frac{3}{4}$ in wooden pin into the chamfer hole/dog hole. Mostly by using trial and error, I came up with a shape that would allow me to angle the base 32 degrees either way. But the precise angle doesn't matter as much as being able to easily slide the wooden pin in and out.

To make the pin, I used another bit of $\frac{3}{4}$ in cherry dowel. For the pin's handle, I made a blind $\frac{3}{4}$ in diameter mortise into a small offcut block of vertical grain pine. I glued them up and planned the handle into an octagon with a block plane.

Before I drilled any of the holes for tool storage, I marked out the final shape, mimicking my grandfather's paintbrush holder, and roughed it out with the bandsaw. I cleaned up all the cuts with a spokeshave and sandpaper. The holes were all bored with Forstner bits on my 1941 Rockler 15in drill press, so I ended up with clean, perfectly vertical holes. I used a variety of bit sizes, just like my grandfather used. The final tally was four holes at $\frac{3}{4}$ in diameter, four holes at $1\frac{1}{8}$ in and three holes at $1\frac{3}{4}$ in.

Since the mounting bracket on the lamp requires two axes, I grabbed another pine offcut, gave it a bit of shape, and mortised it into the base near the back. I marked and pre-drilled holes for some $\frac{3}{4}$ in No.10 slotted screws. Then I softened all the edges with some 220-grit sandpaper before applying a coat of Odie's Oil. I love the Odie's Oil products because they do not contain any driers or toxic chemicals, so I never have to worry about harming my son or my cat when applying finish in my shop, which is in the basement of my condo. In the US, Odie's Oil is available at Rockler or through Amazon. It is also available in a variety of countries in Europe (odiesoil.com/europe-dealers). The cost per jar seems a little high at first, but a little goes a very long way, so the jar should last you through a number of projects.

I attached the lamp to the base, set it up on my bench, and then immediately started to worry about how useful the base would actually end up being. But it was completely unnecessary worry! I love this project!

After a week or two of regular use, tools naturally gravitated to certain holes. My marking knife now lives in one of the $\frac{3}{4}$ in holes when it isn't being used, while another holds my custom Fairwoodworking bog oak shop pencil. I always have a number of my favourite Blackwing pencils and gel pens in one of the $1\frac{1}{8}$ in holes. A piece of canning wax I use for plane bottoms stays in one of the $1\frac{3}{4}$ in holes, the Blackwing pencil sharpener stays in another, and the third one holds my 4in double square.

This oddly-shaped base has really made a positive impact on my shop time. Not only can I see better because of the additional light, my bench work is faster and easier because the little tools I regularly use are right at hand. As a bonus, I



The peg is used to locate the base in three angles on the bench



have a gentle reminder of my grandfather every time I'm doing something at my bench. If you have ever had any of the above issues – missing pencils, lost squares, poor lighting – you might consider adding something like this to your bench!

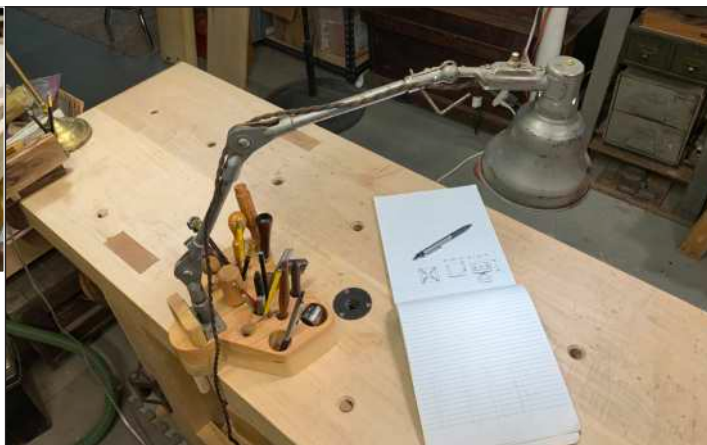
What's Next?

Cleaning up all the bandsaw cuts was so easy because I used my Millers Falls No.1 spokeshave, also often called a cigar shave. As I was using it, I wondered how many hand-tool woodworkers out there didn't know about this wonderful tool or had one and didn't use it because they struggled with setting it up or sharpening the oddly-shaped blade. With that in mind, I started keeping an eye out on eBay for a second No.1 spokeshave. Finally, one came up that was priced right and could use some tuning, so I bought it. In QM05, I'll document cleaning up and fettling the spokeshave, properly sharpening the blade, and setting up the tool for use.

Ethan can be found online at thekiltedwoodworker.com or on Instagram (@thekiltedwoodworker).



An upstand strengthens the lamp to the base (left) with a peg at the back as a fixing -pivot (above)



Hanging on for Slöjd

Continuing his series on slöjd, *Jögge Sundqvist* finds branches to make coat pegs

In old Scandinavian farmers' homes and in Norwegian churches you often find different kinds of useful, beautifully-carved coat and hat racks. A part of the trunk together with one or more branches makes them strong and elegant. Because the blank largely determines the form, you need to cut it when you see it, provided you ask the landowner – if, of course, you haven't got your own forest – but how many people have their own forest? Pegs and racks for coats, hats, caps, gloves and other things are practical in the hallway.



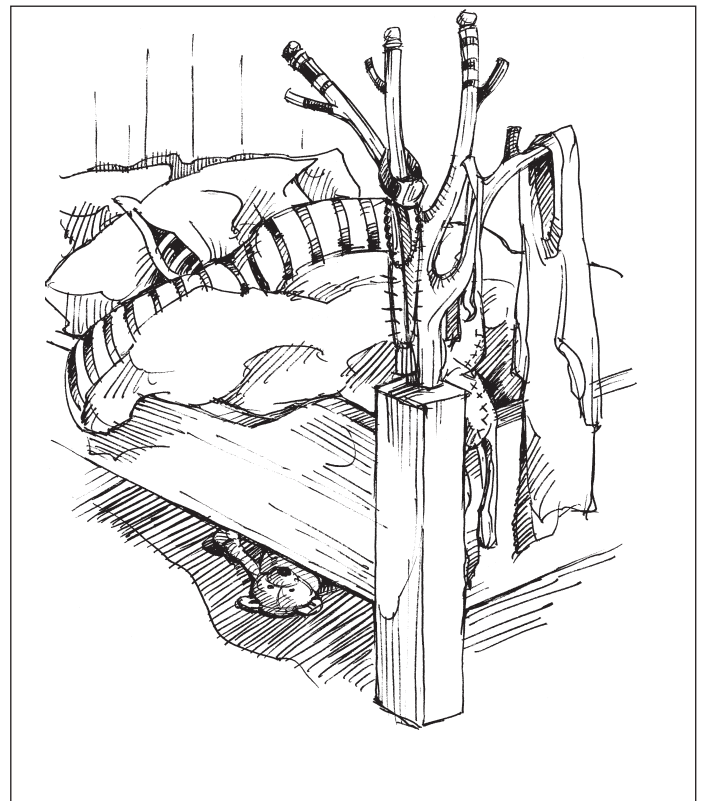
The rack is planed flat on the backside so it hangs against the wall. The branch ends are decoratively carved with bevels and knobs. Birch (*Betula*), rowan (*Sorbus*) and various fruit trees are the best because they are the hardest. Other kinds of wood can also be used, but avoid loose, short-fibred woods such as grey alder (*Alnus incana*), willow (*Salix*), basswood/linden (*Tilia*), and fast-growing spruce (*Picea*) and pine (*Pinus*) if you want a graceful form.

There is no joint as strong as a branch from a tree trunk. The branch is exposed to wind and snow and grows naturally strong where it meets the trunk. The great advantage is that there is no joinery involved. Should you be a landowner, you'd choose a tree that grows near an open field or a road. The branches here reach toward the light and grow more densely than in the forest. You'd go for a blank about 35-40cm (13³/₄-15³/₄in) in length, with multiple branches gathered on the same side of the trunk. As a general rule, slöjd makers take the entire tree when hunting for blanks, and use the rest for other projects, and for heating the workshop. They cut the blank from the felled tree, adding 5cm (2in) on each side. When sawing the branches to length, you must be careful not to split them, so you'd trim them a bit longer than the finished length.

Sourcing branchwood

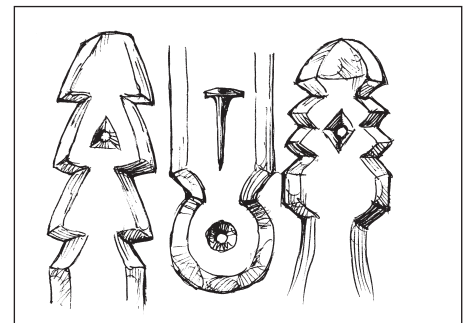
Once you are home, however you have sourced your branchwood, flatten the backside of the blank with the axe. If the blank comprises branches, the wood grain is wavy and won't split well. Sight along the length of the blank to check for flatness. Align the bevel face of the axe with the flat surface and cut at the same angle. If you are right-handed, stand with your left leg next to the chopping block and your right leg far back. This creates stability and the correct swinging arc for hewing. Another advantage is for safety. If the axe misses the chopping block, your leg is less likely to be injured.

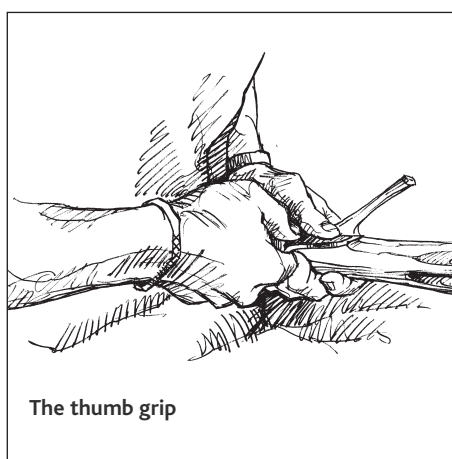
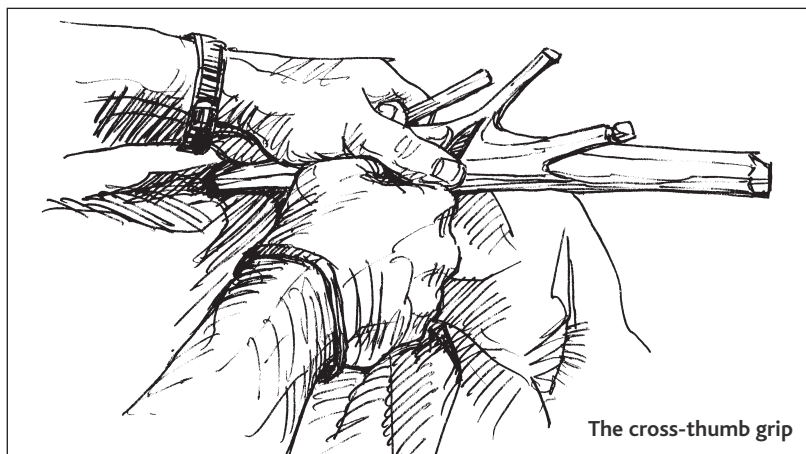
Use your whole body to give power to the cuts. Hold the



handle in a loose but steady grip. Swing the axe to take advantage of the weight and momentum. In order to make precise slicing cuts, let the axe cut the blank in an arc. In order to avoid stress on your forearm, squeeze the handle more tightly just before the blade hits the blank. If your forearm gets numb, take a break and stretch it out by straightening your arm and placing your palm on a level surface. Lean forward.

If you have a shaving horse and the blank can be fastened, you can start carving with the drawknife. But it is of course also possible to use only an axe and knife. Decide where to put the drill holes for a forged nail or screw. Drill the holes, which are approximately 4-5mm (³/₁₆in) in diameter. You will need a thickness of at least 15mm (⁹/₁₆in) in the hole area to make it strong. Now the fun begins: the knife work. When you carve a hook, the branches often get in the way. You need to





use a number of different grips. Feel your way, trying different techniques to work different areas of the hook.

When you want smooth surfaces, you must be able to control the places where straight and cross-grain fibres meet. You will need to carve from different directions, so the grip is a combination of pushing and pulling with the carving hand using the cross-thumb technique. This grip is more complex than previous ones you may have used because of the two pushing and pulling components.

The pushing cut

In the pushing cut, hold the knife near the blade with the edge facing towards you. Support the grip by resting the thumb of your knife hand on the blank, positioning the knife at 90° to the wood. The thumb of the other hand, laid on top of the back of the blade, presses the bevel down into the blank for better control. Tilt the blade 45°. Slice from tip to base.

With the thumb as the pivot point, move the knife forward across the blank in an arc. The power comes from the elbow and shoulder; the wrist is at a fixed angle. Your elbow travels in a short arc as you make the cut. The index finger of the knife hand acts as a stop when it meets the material.

The pulling component is the thumb grip. When the cut reaches the base of the blade, flip the knife over so the edge faces away from you. At the point where the branch meets the trunk, use the rounded part of the tip of the knife and push with your thumb. The bevel is more obtuse and the tip is narrower, which makes carving the concave surface easier.

Now cut from the base to tip of the blade. Push on the back of the blade with the thumb of the hand holding the blank. At

the same time, move the knife hand away from the blank, so the knife slices in the wood in an opposite arc. When this entire cut is complete, you are back to the original position for the pushing component and you can repeat the cut. The grip is also indispensable when you carve V-shaped notches in knobs or pegs for peg racks.

Carving is controlled, precise and efficient with the crossed thumb grip. For extra strength and control, push on the back of the blade with the fingers of the other hand. For safety, rotate the hand holding the blank. The fingers will move to the back of the blade to push in the direction of the cut. The fingers give extra strength when you carve more precise forms. In order to follow a curved form, you need both strength and finesse, which this grip achieves.

First rough-carve and then dry the blank for a week or two at room temperature. To avoid cracking during drying, seal all end-grain wood with any kind of glue. First, adjust the back of the mounting bracket so it lies flat. Clean carving is a challenge, but don't be intimidated. The fibre direction is often unpredictable around the branches, which gives you cross-grain wood, so you must carve from the opposite direction. Treat these challenges as a useful carving lesson! Bevel the hole in which to sink the nail or screw heads. Finally, you can carve a name or date and paint the hanger with artist's oil paint.

Details This is an extract from Slöjd in Wood by Jögge Sundqvist published by Lost Art Press, available in the UK (£34.50) and Europe (£41.50) from Classic Hand Tools (classichandtools.com) and from Rubank Verktygs AB (hyvlar.se/en/lost-art-press) (356.16kr).

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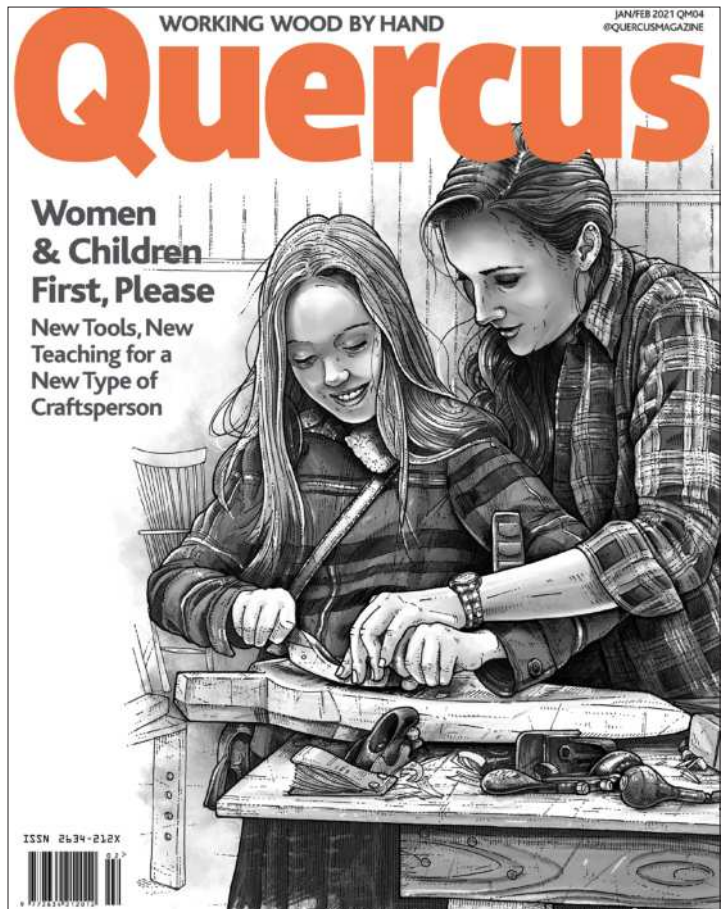
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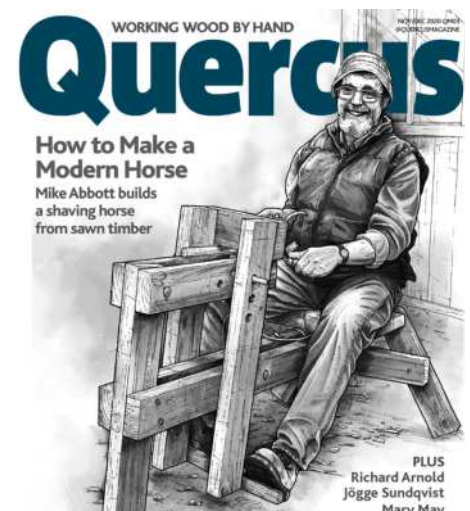
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QM01 A FEW LEFT



QM02 SOLD OUT



QM03 PLENTY LEFT

All Roads Lead to Sussex

Inspired by Lockdown 1.0, *Nick Gibbs* sets a challenge to match William Morris

Readers will know that *Quercus* was a Lockdown Launch in May 2020, contrived when I was confined by the curfew. Since then we have published three issues of the magazine, yet I have still been searching for something to do before Press Day looms. Being used to producing monthly magazines, the wider gaps of a bi-monthly are all too often 'filled' with vacillation. I have no workshop at the moment, but can't help thinking that the editor of a woodworking magazine ought to be woodworking at least some of the time. That said I did once edit a sailing magazine, having never skippered anything from a dinghy to a yacht.

For some reason, I wanted to make a chair, one that can be produced in a small space, perhaps just a kitchen, without making much mess and with very few tools. Windsor chairs need too much kit, plus heat, steam, large pieces of dry wood for the seat and oh-so-many cramps. No, I was drawn by a pair of William Morris Sussex chairs my Mum and Dad had bought when they were running a caning and rushing business in High Wycombe back in the 1970s. Dad was a brilliant rusher, both fast and 'tight', and he had clearly re-seated the chairs at some time. They would have been rushed with Dutch seawater rushes, which are finer and stronger and have a nicer honey colour than most rushes available today. Sadly the Dutch hardly harvest them now as there is said to be not enough demand nor enough people willing to harvest the reeds.

A unique feature of the Sussex chair is that the arm supports pierce the rushing and rushing rails and poke through a central stretcher below. The chair was designed for William Morris by Philip Webb in 1860. It was based on a rural chair found in Sussex when Webb, as an architect, was working on the Red House in Bexleyheath, near London for Morris and his wife Jane. The distinctiveness of the chair led to Liberty's and Heal's having their own versions manufactured, so it is possible mine are not original. The furniture historian Bill Cotton, who is famous for his *English Regional Furniture* tome (written under the name of Bernard Cotton), is a friend of mine, so I took one of my chairs to Bill and found he had one of his own, being used at his wife's desk. Bill was intrigued by the decorations on my chair, and wondered if it had been finished that way as a commission by Morris & Co, or afterwards. Most of the chairs, he told me, were painted with blackboard paint.

The Lockdown Challenge

So I set myself the challenge of making two Sussex chairs with few tools, and certainly no workshop. In fact I had little more than a Workmate, some sash cramps, a ratchet strap, a Bosch cordless drill and a Windsor Workshop spokeshave. That wooden tool became the most important of my small collection of tools. Ultimately it was the only bit of kit that I couldn't acquire from B&Q, and that may be true or not in DIY depots around the world.

I chose to use dowelling for all the parts, to be quicker to shape and to join, and readily available. Without a bandsaw it would be time-consuming to rip boards to width, and anyway square stock would take much longer to shave. Dowel might be



The completed Sussex Chair
No.1 with the few tools required

more expensive per foot than sawn timber, but it is consistent, and often quite good quality, with fewer knots. I intended to spokeshave all the components to make the chair tactile. Users like to stroke the faceted legs and rails and arms.

I wanted to see how quickly a chair like this could be made and at what cost. There wouldn't be much fun in replication, and anyway I'd never be able to match the quality of Philip Webb's design in a pure form. I wanted to embrace some of the key features, namely the skeleton of stretchers and rails, and the four decorative finials in the back, and of course the arm supports, but I also wanted to be original. I wanted to become a Chair Punk.

From a B&Q rack of dowel I chose 25mm for the legs, 21mm for the arms and 14mm for everything else. That DIY store has a good selection of diameters, and even stocks a wide range of drill bits, except that most of the larger diameter ones are lip and spur, and tear the dowel as you drill. I couldn't resolve that problem immediately, but have turned to Multi-Angle Drills (MADs) for future designs.

Veritas Tenon Cutters were also out of the question, a) because I had none and b) because they are expensive and the aim was to make this a low-cost project. I have used them in the past to help children start woodworking, and for chairmaking myself on courses. Veritas has transformed our world of wood



A chair like this can be made with relatively few tools and some sash cord, though it is unlikely to look like a William Morris original



with their tenoners, and we should consider them one of the most significant innovations of recent times. However, I don't want the concave shoulders on my chairs, not least because Morris & Co would not have had these in the late 19th Century. Though the tenon cutters are particularly valuable for removing waste for larger-diameter tenons, it is more difficult to control their tendency to drift on narrower stock. Whittling the tenons by hand is more authentic, and means you can adjust them to suit your drill bits. For the making of the prototype at the start of Lockdown 2.0 I had no knife, nor even a chisel, so had to rely on a Leatherman. Actually, my Wave model has proved to have not only the best pliers, but also an amazingly sharp blade. It has become my tool of choice for making chairs.

Assembling the frames

As is typical for chairmaking I started by assembling the back frame, aware that the legs are far further apart at the top than at the ground. Using just two of the sash cramps would have been enough for gluing up the front and back frames, but additional ratchet straps were essential for holding the final assembly together. In the end, adding the cross-rail for the arm supports proved to be too awkward for this prototype because the dowel chosen for the stretchers is too thin, especially once they have been shaved. The same is true of the decorative

finials in the back. I was more intrigued by the principles of making the chair than getting it absolutely right first time. So the result is one that looks more Japanese than Arts & Crafts, especially as rush was not available. With Mitsuru Hochi's (@mitsuru_hochi) QM02 seating article in mind, I traipsed round B&Q to find an appropriate alternative. His slit tape, Mitsuru has told me, is difficult enough to buy in Japan let alone in the UK. Eventually I chanced upon sash cord in 6m lengths, costing about £6 each. Even though you don't have to do any of the twisting Mitsuru illustrated in his article, which is normal for rushing, using any type of string is a horrible job, there being so much cord to feed around the chair. With slit tape, as is the case with rush, you twist in one or two lengths at a time, continually 'splicing' as you go.

Though my father would have been ashamed of my 'rushing', ultimately it seemed good enough for a passer-by to be sitting on the first of the William Morris Lockdown 2.0 pair after only 12 hours of making. The chair has an engaging Japanese look, with far too few rails, no arm supports and there isn't a curve to be seen anywhere. In particular it lacks the bent back legs, which traditionally call for steam-bending. And here I must add an extra dimension to my tale of chairmaking exploits.

Next issue Nick will be testing to see how to curve the back legs.

Hollows & Rounds

Testing his inner Goblins, *Derek Olson* reads Matt Bickford's mouldings classic

A tribe of Goblins lives in my soul. One green-skinned creep for each thing I covet, items both noble and undesirable. Whispering, they test my resolve between greed and patience, and while I own the same weaknesses as an average person, I also carry unique baggage tied to woodworking. One of my longest unfulfilled desires is to 'stick' or create my own furniture mouldings using wooden hollow and round planes.

A weird desire for a person to have? Probably, but I already fall 'non-conformist' on a bevy of standardised tests. Because I prefer hand-tools to screaming routers, I currently make my mouldings using one of several complex moulding planes, but the Goblin preaching individuality whispers they are still a compromise on both sizing and style. I want a complete set of hollows and rounds (H&Rs) because customising these details in my work carries a truckload of appeal and the Tool Goblin wants my tool chest to look more like Benjamin Seaton's.

Mathew Bickford is the devil selling candy to my Goblins with *'Mouldings in Practice'* (Lost Art Press 2012). Prior to publication I read his blog *'Musings from Big Pink'* and was excited for an actual book compiling his techniques. My Tool Goblin was excited to buy all the hollows and rounds in existence, to accompany the dream.

The book arrived, green cover to match my Goblin's skin, and I consumed the words and pictures. Bickford has an easy writing style and I found a nice, colour-coded way to illustrate the steps to create custom mouldings with the considered assistance of a rabbet plane. He walks through the basics: sharpening, setting, troubleshooting, and all the expected things, but adds a few surprises.

If you're used to metal-bodied planes, setting and using a wooden plane is a manageable learning curve that takes some trial and experience.

Matt's writing corrected my errant attempts to back off a heavy-set blade using a hammer strike against the plane's body or wedge. His solution of driving the



blade all the way through the body and starting over is both simple and healthier for the plane's longevity,

Better yet, he suggests fine tuning the blade's depth by inverting the plane, securing the wedge and blade with your fingers and 'slapping' the toe on your benchtop. This is also better than damaging hammer blows and just feels more efficient. I don't have to pick up and put down the hammer to make an adjustment. My confession is that I also tap the wedge on the benchtop after the 'toe slap' so as to make sure it didn't loosen its grip on the blade. I can imagine some frowning at this abuse to the wedge but for me feeling efficient has a Goblin all its own.

Bickford covers a variety of moulding layouts and establishes an orderly manner to create them using a rabbet plane for the heavy lifting before swinging in with the H&R profiles to finish. The concept of using the same rabbeting technique to improve my naïve use of complex moulders was a forehead slap moment. Similar, the idea of using

H&Rs to improve a murky profile cut by a complex moulder or side-bead plane. The same refining could also be accomplished on router bit runs.

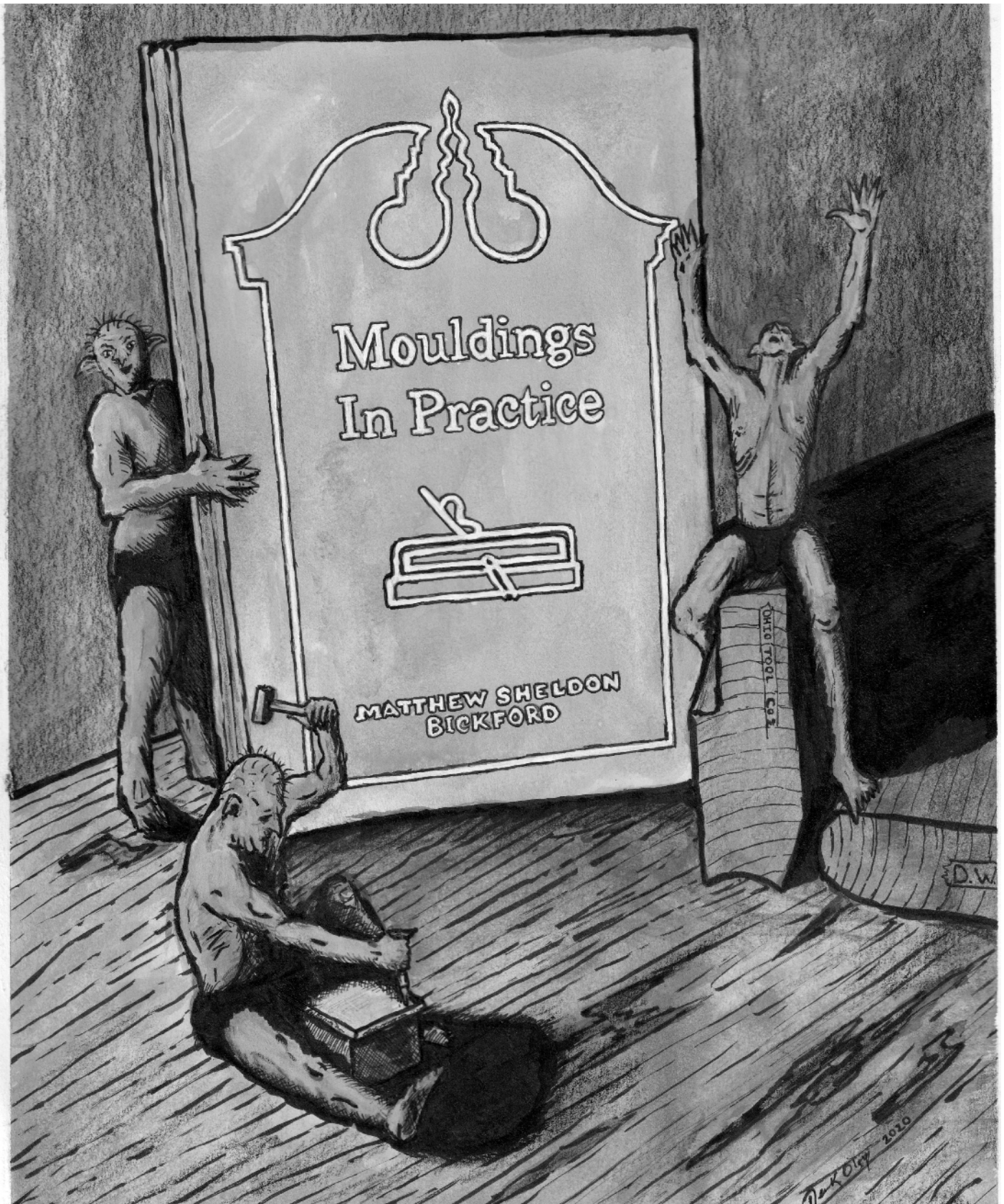
Bickford covers the benefits and uses of snipes-bill planes and side-round planes, profiles that wouldn't have appeared on my radar without this book. The Tool Goblin rejoiced.

Then Matt Bickford broke that Goblin's little gray heart. He demonstrates how just one pair of H&Rs can be leveraged to create more than 40 profile varieties and my humble needs for furniture-sized mouldings meant the 16 matched pairs found in Benjamin Seaton's mythic chest were superfluous.

Worse, Bickford wrote an appendix covering the difficulties of rehabbing old moulding planes. He covers troubleshooting and maintaining new planes well but preaches caution about rehab projects. His words betray both love and reverence for these old timers while making excellent points about the sadness traps they can be when compared to a purchased or shop-made set. It's honest writing that's tough to find in a world set on selling you things.

I wonder about Matt Bickford. I wonder if he's happy my Goblins cried themselves to sleep because old user-grade tools are often where my greed and my budget can shake hands. I've had this book on my shelf since it was published. I've often paged through it and marked it up, waiting for other projects to end and give me time to build a pair or two of hollows and rounds for myself to transform Bickford's lessons into furniture mouldings. Despite the warnings I still looked through every antique tool store and bin for a matched set I could take a chance on but finding furniture-sized planes was rare and a matched set doubly so. This autumn I finally spotted not one, but two of the mythological pairs and they followed me home. I've resolved they'll live on the bench and 'in the way' until I get them sharp and working.

Maybe I'm not good at listening to advise. Maybe, eventually, the Goblins always win.



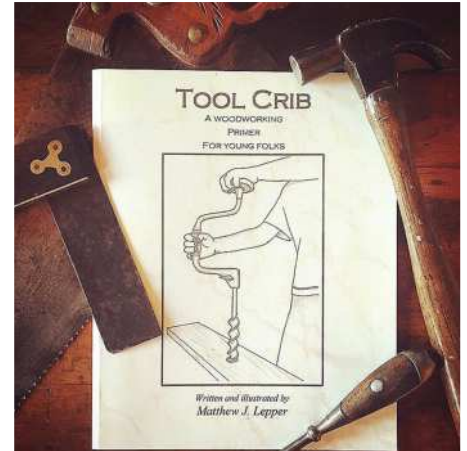
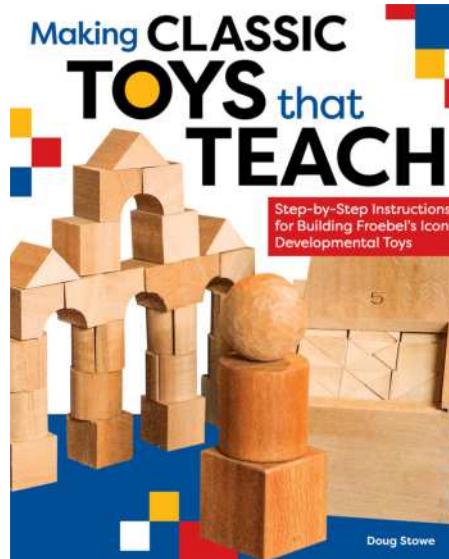
Making Spherical Futures

Teacher *Doug Stowe* writes how important a simple ball is for inspiring children

The ball was the first of the gifts that Friedrich Froebel (1782-1852), who created the first kindergartens, made for the educational play of children. Froebel believed that the sphere was one of the foundational shapes in the universe. If you look at the sun, the earth, the moon, or another planet, it's a sphere that you see. If you mix soap and water to make bubbles, near-perfect spheres are formed. Many fruiting bodies from the world of plants are spherical in shape.

Balls were made from a variety of materials. They can be felted from soft wool or crocheted from yarn. Many young women at the time (and as some are today) were skilled in making crocheted goods. We also know that Froebel was a skilled whittler, and as a teen had spent time as a forester's apprentice in the Thuringian Forest of central Germany, where he would have become quite familiar with the work of forest craftsmen. His friend the countess Bertha von Marenholtz-Bülów told of him giving her small and lovely carved objects.

As a woodworker, myself, I focus here on carving a ball from wood, but there is no reason a skilled parent or grandparent would not want to try a hand at all three methods. Simply do an Internet search for "crocheting a ball" or "felting a ball" to get started. A hard wooden ball chased by a child across the floor, or a fuzzy ball attached to a string and dangled to entertain and teach a child while still on his or her mother's lap, was what Froebel intended as his first gift. Today, balls are commonplace, and can be purchased



As we went to press we learnt about Tom Lepper's (@kids_tool_crib) small book *Tool Crib*. We will review it in depth and talk to Tom next issue. On Amazon for \$9.99

wherever toys are sold, but there is still a special spirit in the things we have made ourselves.

For Froebel, the shape of the ball was one of the essential building blocks of nature, and symbolic of the wholeness of the universe and the holiness of the child. But what would a child learn from play with a ball? How about coordination of hand and eye? How about gravity? How about the density, hardness, and weight of the material? How about something of the very essence of life?

I always begin my whittling doing the hardest part first, across the end-grain. Don't try to remove all the stock at once. Thin slices made with the least effort are

best. After the ends are cut to shape, tackle the long-grain corners, watching that a deep cut doesn't dig in. The block will now look like a polygon.

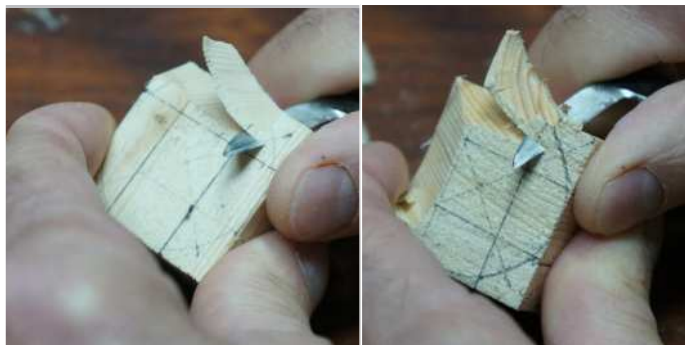
Then cut between the small triangles. Now you can make slicing cuts around the circumference in each plane, or you can follow a more mathematical approach and mark additional small squares for removal with the knife. You will see what is recognisable as a ball, and rotate the ball between your fingers and thumb to find the high points.

It may not be perfect but I refuse to sand it perfectly round. I prefer to see all the carefully-made cuts as evidence that I have made it myself.



Cut your cube (left) then use a compass to mark a circle on each side (right). Draw the lines from corner to corner then use a combination square at 45° to mark a line just touching the circumference of the circle at each corner and then use the 90° square to mark between those lines on each side (far right)





Make a series of cuts at each corner, deliberately stopping short of your thumb. Less experienced carvers can cover their thumbs with tape. Continue to cut each corner. I cut across the grain first



When the end-grain cuts have been made, proceed to cut along the remaining corners of the block. Your initial polygon will look like this



Draw additional lines forming triangles around the pointy corners that remain. The triangles form more squares equal to those drawn on the original sides. Keep carving each side or use a more mathematical approach marking smaller and smaller squares and triangles



Keep whittling down to the corners one by one. You will eventually produce a near spherical shape. As you proceed use your fingers to discern high points. Where you feel a bump carve. I prefer to leave the ball without sanding as evidence of the knife work

Make a Pole Lathe on YouTube

Maurice Clothier has an answer to a reader's request



In the second issue of *Quercus* we interviewed greenwoodworker Flo Hamer, showing her bowls turned on a pole lathe. One of our less experienced readers, Alan Zoeflig, who happens to own the Red Blue chair featured elsewhere this issue, emailed asking, to be blunt, what a pole-lathe does. We have been slow in responding, but Maurice Clothier offers an answer with his brilliant YouTube videos of assembling just such a device.

Maurice started by filming for YouTube the birch tapping he does, and how he turns the taps on a pole-lathe. "A lot of comments about that were asking about the lathe," Maurice tells us. "So I made a video about my lathe (evolved over 25 years of being a Bodger), upon which the turner can turn spindles and bowls on the same lathe."

"I make these lathes to order, and run courses in making them. The bonus of doing the courses is that the learner gets in on my 'sliding dovetail legs' hack, by which one can quickly and easily produce these strong joints."

We thoroughly recommend Maurice Clothier's videos, and hope the YouTube links here work or visit touch-wood.co.uk. Birch tapping: m.youtube.com/watch?v=h77ytr5UzBY Pole-lathe m.youtube.com/watch?v=b7d1XZ3UOZ4



Better Bench Hooks

A suggestion to upgrade an old design helps *Robin Gates* make a better hook

The patina of work which develops on my bench over time is something I look upon with as much fondness as embarrassment. Perhaps I should have been more careful with the follow-through of the saw, drill or chisel, but on the other hand those little scars tell a story, a history of learning and making written by the blades themselves. This cluster of holes? That's where I under-estimated the speed of cutting of a Lee Valley brad-point bit in the hand drill. And those scratches running east-west are a record of the afternoon I sawed the legs of my new sawbench to length using a pair of bench hooks. Happy memories. And yet, when the work surface starts to resemble a ploughed field perhaps it's time to pay more attention to what the tool does after it exits the workpiece.

And I think that's what editor Nick Gibbs was thinking too, as he watched – or rather listened – to me sawing a piece to length using the pair of bench hooks I mentioned, as posted on Instagram. These hooks are to a traditional one-piece design which I'd found illustrated in *The Woodworker* of February 1902, and for sawing long stuff to length a pair of this narrow sort is just what's needed as you can space them exactly as required, bracing the work with your free hand placed somewhere in between. The sound of the actual sawing raised no objection, the cut was nice and clean, but it was what happened next which raised the editorial eyebrow: there'd been an all-too abrupt coda to the music of the saw as its toe dug into the bench. Couldn't you make the bed of the bench hook wider than the fence, Nick wondered aloud. That way the saw will land on the bed at the end of the cut and not damage the bench.

Hmph, I thought, and perhaps said, with an eye to the ridges and furrows of the surface where I work. And anyway, this design of bench hook has been around since the 19th Century at least. A basic bit of work-holding kit could hardly be more simple, better documented or soundly proven. The very notion of a modification to it seemed irreverent, even sacrilegious. Generations of woodworkers spoke against it. Still, the more I thought about cutting a rebate in the fence the more sensible this seemed. Every other bench hook has one, making a kind of runway for the saw teeth to land – why not these?

Perhaps it has something to do with how they're made, which is unusual in that each is cut from a single piece of wood – mine are around 12x2 $\frac{3}{4}$ x1 $\frac{5}{8}$ in, with the shoulders of the fence (which supports the workpiece) and hook (which butts against the edge of the bench) being set in by about 2in and around $\frac{3}{4}$ in deep. Since they're made in one piece there's no fussing with fixing a separate fence and hook precisely square, which ought to be done using wooden pins according to Charles Hayward so as to avoid the risk of damaging saw teeth on metal fastenings. But if you were attaching a separate piece for the fence of a single bench hook perhaps it's more likely you'd cut it short to make a rebate, whereas it may feel slightly illogical to be sawing a rebate from one fence of an otherwise identical pair. Or not. Who knows?

Notice from the old illustration how these bench hooks are marked out with diagonals for the bed so that, once cut to shape, the shoulder of the fence and hook lean inwards by



The basic idea of making a pair of bench hooks is not new, shown (right) in a 1902 edition of *The Woodworker*. With the improved version (above) the kerf doesn't foul on the workbench

about 3°. This helps both to wedge the workpiece when under hand pressure and stabilise the device while sawing. A simple procedure for making them using hand-tools is to first cross-cut the waste then remove it with chisel and mallet before flattening the bed with a block plane. There's an entertaining YouTube video from Roy Underhill showing this entire operation – entire, that is, except for a rebate in the fence.

Following Nick's suggestion, and going with what looked right, I made the rebate about $\frac{3}{4}$ in wide, chiselled its surfaces flat, then plucked a piece of oak off the rack to play the guinea pig to a first cross-cut. And if it's not too paradoxical to suggest a plus may be achieved through taking something away, removing that small piece of wood from the fence has transformed this pair of bench hooks into completely bench-friendly aids to sawing.

The history of woodworking is littered with 'improved' tools which turned out to be no more than 'altered' tools, but this is most certainly an improved bench hook. Even in my shed, where another scratch in the bench is looked on with more pride than regret, eliminating that feeling of the saw being about to break through into space at the end of the kerf has led to a more relaxed technique, with a softer grip and easier motion, resulting in a cleaner, faster cut.

How to Make a "Bench Hook."

THE bench hook is an indispensable article to the woodworker, whether amateur or professional, its purpose being to hold the wood while the shoulders, &c., are being cut. Fig. 1 shows a piece of wood marked out ready for shaping into the "hook," the grained portion



FIG. 1.—SHOWING WOOD MARKED OUT TO SHAPE OF BENCH HOOK.

having to be cut away. A suitable length is 12 ins., the other sizes being 2 ins. wide by 1 $\frac{1}{2}$ ins. thick.

The complete hook is shown in Fig. 2, and in use it is laid across the bench, clipping the sides

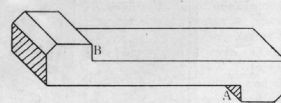


FIG. 2.—BENCH HOOK COMPLETED.

of the latter at A, while the wood to be cut rests against B, which receives the thrust of the saw. Another variety is shown in Fig. 3, made up of



Initially the two hooks are marked up and cut to shape as per the accepted approach (left), with the waste removed with a chisel (below) and cleaned up with a block plane. Hey presto, oak is cut to length without scoring the bench



Woodwork in a Social Age

Scrolling the Net, *Hattie Speed* finds the Austrian chairmaker Vinko Nino Jaeger



Scrolling through Instagram, woodworkers are spoilt for choice at the vast amount of content available. Social media has broken down barriers, allowing hobbyists and professionals to showcase their work alongside one other; providing an accessible platform for the community to directly communicate.

From this diverse network, there are makers of beautiful handcrafted objects, Sophie Sellu, deserving a notable mention for her contemporary woodwork brand Grain & Knot (grainandknot.com). Sophie graduated from Manchester School of Art in 2009, and now lives in London, and works from her home studio. After completing the Prince's Trust Enterprise Scheme, Sophie was able to pursue her craft full-time, offering

skillfully tactile, fully functional wooden kitchenware, with each item made from reclaimed timber. Grain & Knot's Instagram (@[grainandknot](https://www.instagram.com/grainandknot)) is well worth a follow, between the tasteful and elegant images of Sophie's creations, we are treated to personal snippets of her trips into the woods and the launches of her pop-up shops.

Then there are those who work on a larger scale, like Benoît Averly, engineering amazingly elaborate sculptures ([benoitaverly.com](https://www.benoitaverly.com)). Based in Burgundy, France, Benoît creates textural pieces in wood that explore light and lines. Having discovered woodworking during his childhood, his most coveted pieces are prized by interior designers, architects and collectors worldwide in numerous luxury interiors. I would recommend following Benoît Averly's Instagram (@[benoitaverly_sulptor](https://www.instagram.com/benoitaverly_sulptor)), if you are seeking an eclectic arrangement of inspirational images, as well as occasional action shots of Benoît manipulating material.

However, during one of my many weekly purges of Instagram content, I came across the work of Vinko Nino Jaeger (@[vnjaeger_chairs](https://www.instagram.com/vnjaeger_chairs)). At first glance: an Austrian-American chairmaker with a passion for hand-tools, and whose profile I found interesting enough. Nevertheless, following further research via his website portfolio, and eventually a 60-minute Zoom call, I was more inspired than ever by this maker's work. Finding connections with other people, especially craftspeople, really excites me, and this seemingly random event of contacting someone via the internet proved to resonate so meaningfully with me.

Initially it was Nino's creative interpretation of the traditional chair form that attracted me. Some designs have four legs, others have three; some are for sitting front ways, others you sit on backwards. And amazingly, all of his creations involve no (or very, very minimal) use of machines. As Nino describes it: "Working by hand is a creative process, I let it happen. It's interesting to work with hand-tools because you have a more



Nino's adze is a one-hand hollow swage from Dictum. "It is well made and less expensive than others."



PHOTOS: PATRICK BAUER

direct relationship between the body and the thing you're making. It's like sculptural handwriting, and makes objects more alive. I see my pieces more like artworks, I don't want to compete with industry. It's important to me to design my chair sculptures only in my head. I don't do design drawings. This approach significantly influences the result."

I explained to Nino that in the second year of my degree in furniture-making, I designed a playful stool called 'Hinny'. I remember the sceptical looks of my course mates, probably thinking, 'how is that a chair?' So it was really refreshing to find someone else whose work explores the performative aspects of making furniture. "Chairs are interesting to me," Nino replied, "because somehow they are connected to the human figure, with the legs and arms... a metaphor. I see chairs as a sculpture with a function; only complete when a person uses it. I mostly do artworks that people are engaged with in some way, and this is the case with chairs. You have to use it, do something with it. It has this performative character. I sometimes use chairs as props in my own performance art."

"This is probably part of my history as a trans man; I'm interested in this non-visible part of the body. If you didn't know me, you'd think I'm just a normal guy, so I have to do this like 'outing', but it doesn't matter who you are, you always have this invisible side of your body. We all have that, and it's similar with chairs. I like it when nobody is sitting there, the chair is asking about this 'invisible body', which is only in your imagination. This plays a big role in my passion for chairs."

Vinko Nino Jaeger grew up in south Austria in Carinthia. Raised in the countryside, where he could play in the woods and

his family's big garden, he has engaged with woodwork since his early childhood. "I was always building treehouses, dens and toys out of wood. I had a lot of support from my father. He was a self-taught artist and supported me in my creative energy, so I could basically do what I wanted. I decided to study fine art at the Academy of Fine Art in Vienna. First I started painting, but very soon it became clear that I wanted to do sculpture and three-dimensional things, as I was always building and constructing things out of wood. I changed to Object Sculpture, where I tried stonework, however it was always clear that woodwork was the thing I liked."

The Academy had different workshops for every discipline, and Nino recounted how the woodshop proved too machine-focused: "I'm not interested in this side of the industry. I don't want to create forms that can be reproduced hundreds of times." Nino transferred to the Wood Restoration course, where students were expected, due to the nature of restoring antique furniture, to do everything by hand. This provided a great opportunity to familiarise himself further with hand-tools.

Prior to studying at the Academy of Fine Art in Vienna, Nino completed studies in Psychology and Philosophy, but decided it was not a pathway he would continue. "I think I just wanted to understand myself more. I was interested in participating with other people. However I found Art was the right place for me, because I knew I didn't want to be a cabinetmaker and only use big machines. I wanted a more holistic approach, to work with my hands and my mind. I say I'm an artist, because it offers a combination of philosophy and practice."

In spite of this, Nino has since found a match between his



former studies and his craft, by teaching in the Art Therapy Department at the Sigmund Freud University in Vienna. I too have pursued a career within Craft Therapy; working as an Occupational Therapy Technical Instructor with neuro-rehab patients at Oxford's Centre for Enablement. I can relate to the two disciplines co-existing for his students, in a medium he has fostered called 'performative sculpture'. Nino described how the main challenge arises from having to teach the Art Therapist trainees with as little material as possible. Since much of their practice will be carried out in hospitals or homes for the elderly. "I try to teach them to think about how they can use the body in art therapy, as a tool to learn about oneself."

Nino promotes similar teachings in greenwood spoon carving courses he also runs. By using just an axe and knife, participants are encouraged to find their own wood, and let their imagination talk freely with the material, to make something from it. During these courses, people learn the most important hand-tools for specific tasks, and find shapes that harmonize with their body, rather than trying to implement a rigid form.

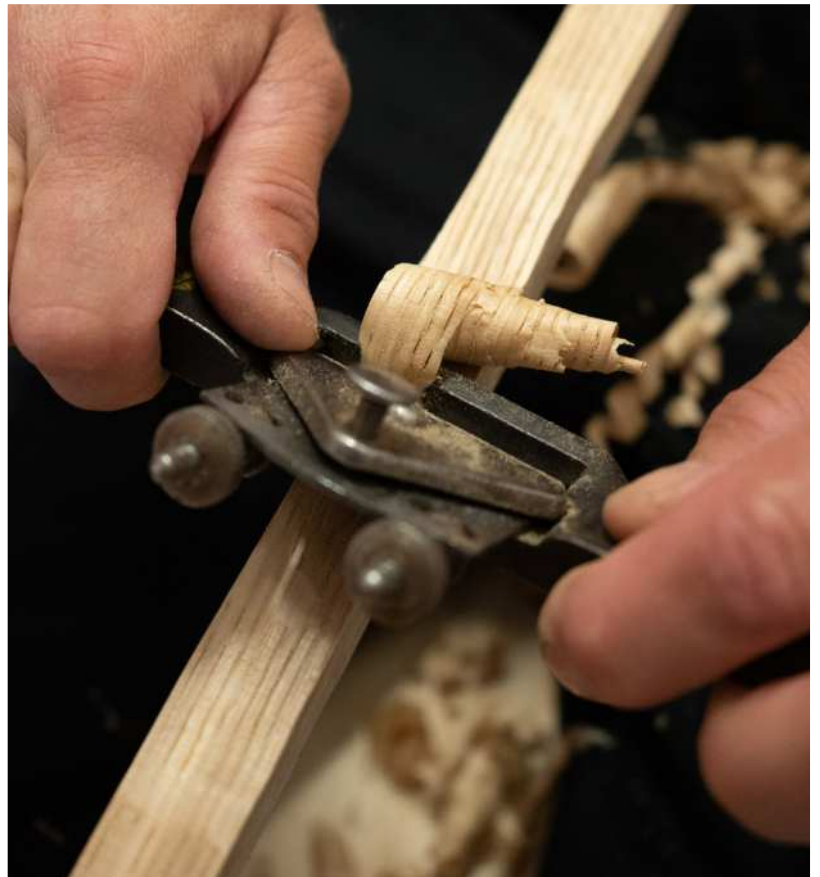
When he isn't teaching (a quarter of his time), Nino can be found in his studio in the heart of Vienna. A 20m² workspace for sculpting his chairs is fronted by a gallery-shop called STÖL. This allows him to sell his work directly to clients, as well as providing space to showcase other artists during exhibitions. His toolkit is comprised of many hand-tools I'm sure most keen woodworkers would recognise. However I admit there were several I had no prior knowledge of, particularly: Adzes, Travishers and the various types of woodworking knives. Despite completing a furniture-making degree, where most of the first year focused

on hand-tools, I feel surprisingly ignorant of the manual options available; the adze, the travisher and various types of knife.

For many beginners and young makers, the luxury of a workshop is most desirable, but access is often prevented by cost, space or even confidence. "You need a little space," comments Nino. "Only a few tools, and you don't need a lot of energy. I don't need big machines that make noise and produce dust. It's really ecological." As my tutor, Joe Bray, wrote in QM02, if craft education's primary focus is employability within industry, then the use of hand-tools and what might be seen as 'slower ways of working' are at risk of erasure. Nino and I can count ourselves lucky that within our Art and Craft Therapy roles, an understanding of hand-tools will only ever be an advantage.

Since my Zoom call with Nino, I have recognised untapped potential within my own making practice. Hearing about his use of hand-tools to carve, sculpt and make things means attempting projects from home seem far more achievable than I'd first considered. So I take comfort at the thought of Vinko Nino Jaeger sculpting chairs in his studio at his period house in the beautiful Austrian countryside.

Hattie Speed is an artist-maker, who specialises in woodcraft therapy within her role as OT Technical Instructor at Oxford Centre for Enablement. Hattie is founder of This Girl Makes, an on and offline community of designers and makers, as well as facilitator of Rycotewood Furniture College's National Saturday Club. To see more of Nino Vinko Jaeger's work visit vnjaeger.com.



Nino Jaeger outside STÖL, where he has a studio, and using a Stanley spokeshave he bought used. "It is a good quality spokeshave," he says, "for not a lot of money, though I would love to try a Lie-Nielsen or Veritas."

Greenwood Cleaving & Sheaving

Remembering his days making chairs for the first time, *Mike Abbott* explains why cleaving wood has a special place in working with green wood, and how he has discovered the benefits of sheaving



A cleft-wood chair by
Richard La Trobe-Bateman

I never set out to become a chairmaker but I have always loved trees and woodlands. It's all very well going for walks in a woodland but it doesn't get you really involved with that incredible raw material that woodlands provide us with – wood. Wood is unlike any other raw material available to mankind. It is produced entirely by solar energy using an incredibly sophisticated system known as photosynthesis – which literally means combining things by light.

The place where wood is produced is usually a beautiful place to be and provides a valuable habitat for wildlife. Wood production has to be far and away the most efficient means of capturing carbon dioxide from the atmosphere. As I said in my first book *Green Woodwork*, "Because the process of wood production continues, quietly, cleanly and with very little need for human intervention, we take it very much for granted. But if we lived in a world relying totally on steel, plastic and fibre-glass, where wood was unknown, imagine the public acclaim if some scientist were suddenly to invent a tree!"

Properties of wood

Why make cleft-wood chairs? Working on a woodland project with teenagers 30 years ago reinforced my own experience of the fulfilment that comes from making something out of a piece of wood, especially if you know where the wood has come from. We started utilising the wood around us almost by chance when we needed to replace a broken axe handle. I then introduced the trainees to the tradition of the chair bodgers and their pole-lathes, so making a wooden Windsor chair seemed like a good opportunity to further explore the properties of wood.

To make our first chair we turned all the legs and stretchers on a pole-lathe using smooth, succulent beech. We adzed tough, gnarly planks of elm for the seat, and cleft hard oak and

planed it to bring out its attractive grain for the slat. Then we cleft long elastic lengths of ash for the spindles and steam-bent it for the bows.

Through the process of making our first chair, I realised the potential of this process for getting people involved with trees and wood in an intimate and fulfilling way. When I finished with the Youth Training Scheme, I began to run courses making greenwood chairs following the tradition of the chair bodgers.

At about the time I was establishing my greenwood enterprise, I attended a talk by the designer/maker, Richard La Trobe-Bateman. He was describing his cleft and shaved ash furniture, which utilised a home-made rounding plane for making the joints. I found it interesting but I was madly in love with the pole-lathe, so I put his techniques to the back of my mind. Eight years later, I was invited to the USA, where I met and discussed chairmaking with many of the leading chairmakers and experienced at first hand their tradition of cleft-wood chairs with woven bark seats. Shortly after that trip, I moved to Herefordshire, with its tradition of spindleback and ladderback chairs with frames made almost exclusively out of ash wood, although the local tradition was to slot a thin elm plank into the frame for the seat. A few years later, my eyes were opened by some very clever chairmaking techniques when I visited the Warwickshire workshop of Neville and Lawrence Neal, who were still making and selling beautifully simple ladderback chairs.

Anyone with any grasp of structural engineering will appreciate the sophisticated way that a Windsor chair tightens itself as it is sat upon, compared to the relatively basic form of the frame chair. Although the chair bodgers usually worked away on their pole-lathes in their woodland shelters, the range of processes involved in their design meant that Windsor chairs were generally assembled in urban workshops.



SHEAVING "I used to tell people," says Mike, "that when using the drawknife they should shave the workpiece from the larger diameter to the smaller diameter, thereby removing nice smooth shavings. Since then I have ripped into the wood with a drawknife, removing long chunks. There is a German word 'schieben' meaning to push or shove, so Anglicising this to sheaving would seem to be a good name for this apparently crude process.'



The different operations, such as bending, bottoming and framing, were often carried out by specialists in an almost industrial-style production line. By contrast, chairmakers like Philip Clissett or the Appalachian hillbillies tended to take the whole process through from buying the logs to selling the finished chairs in the local markets. There are fewer different processes involved, there is a smaller variety of tools required and, on the whole, the assembly is more straightforward. This makes frame chairs, to my mind, much more suitable as projects for people who are just starting to become involved in working wood.

While I was in the USA, I had been given a newly published book called *Making Rustic Furniture* by Daniel Mack. Rustic is a rather vague term when applied to chairs. Generally, but by no means always, a rustic chair is made out of small dimension roundwood sticks or small logs, usually still covered in bark and displaying the character of the tree or shrub from which it was made. Rustic furniture was particularly popular in the early 1900s, especially in a hilly region of New York state called the Adirondacks. The author eloquently describes how he sees his craft: "The maker is not a carpenter, imposing a plan on wood, nor is he a nurseryman, relocating trees. The tree and the maker have collaborated. A successful rustic chair has life. It has the life of the tree and the spirit of the maker." I love this description of the relationship between the chairmaker and the raw material and I agree wholeheartedly with his sentiments.

Are sticks strong enough?

Using a long, thin stick seems such an obvious way to make a long thin chair component. In Britain, we have a fine tradition of hazel hurdles and willow baskets, so why aren't rustic chairs part of the British chairmaking tradition? The centre of a small

stick will contain pith, which is a soft material with no strength whatsoever. Outside the pith will be a few years' growth known as juvenile wood, which has a degree of fibrous strength but is nothing like as strong as the layers that are subsequently laid down. If the sticks are woven together, as in a basket or a wattle hurdle, the tensions work against each other, which imparts strength to the structure as a whole.

Once a stick becomes a log, the proportion of juvenile wood is outweighed by stronger wood laid down as the tree grows older, and again one has a viable structural resource (see Ben Law's *Roundwood Timber Framing*). However, it is an inescapable fact that a small diameter stick has far less strength than a length of cleft wood of the same species and the same diameter.

Having said this, there are a lot of people nowadays successfully making and selling rustic chairs (see Alison Ospina's book *Green Wood Chairs*). By beefing up the dimensions and using modern adhesives, most of the issues to do with strength and longevity can probably be eliminated, resulting in a simple, quick way to make attractive chairs.

Despite the fact that cleaving and shaving take more time and effort than simply cutting a hazel stick, most people seem to find that they are enjoyable processes in themselves, and their successful implementation adds to the fulfilment in making a chair. I like to use the term 'sensitive force' to describe the approach needed when practising the art of cleaving. It is neither the imposition of a pre-conceived design onto the wood, nor is it a random process. It is a collaboration between the craftsperson and the material and this makes cleaving one of the most satisfying aspects of working with green wood.

You can buy *Going with the Grain* by Mike Abbott for £15.00 inc.p&p from goingwiththegrain.org.

De-Evolution of Planes

Confessing to an addiction, *Richard Arnold* researches early British planes



My name is Richard Arnold. I am an addict, and I collect wooden planes.”

In my defence I would also like to say I’m a full-time woodworker who uses wooden planes on an almost daily basis. So why do I collect planes? Well that’s a long story, but the short answer is that I have had a life-long passion for rediscovering pre-industrial woodworking techniques, and part of this research involves studying how certain tools, and their associated applications in the working environment developed,

particularly during the 18th Century.

A large number of planes have survived from this period apart from one rather sad and glaring exception, British bench planes. As far as I am aware (apart from the examples recovered from the wreck of the *Mary Rose*) there has been no known discovery of any British bench planes from the period before about 1750. There is good reason for this anomaly in that bench planes have a hard life, and they have simply worn out. Research wise, this has left me in a bit of a quandary. With no examples left to study how am I to understand how they may have evolved over time? Thankfully we have a few clues to point us in the right direction.

Wooden bench planes are some of the first tools we use as we make our first hesitant steps into woodworking. The jack

(sometimes referred to as a fore plane), the triplane, and the smoother are the three main examples used to convert, and smooth rough-sawn boards into dimensioned stock, but there are other planes with specialised uses that share common features, and a few examples from the early 18th Century have survived. These include panel raising planes, and large moulding planes sometimes known as cornice, or crown moulders. Apart from this hard, physical evidence we also have a tantalising clue from an early trade card. This depicts an image of the shop sign of London planemaker, John Jennion. The card possibly dates to about 1730, but the sign itself was in use for many years prior to this date. The address ‘The Three Plane Makers’ at No.3, Queen Street, London was first used by Thomas Granford in 1687, so the planes illustrated possibly date from that period.

At first glance the three long planes may appear to be much like any wooden plane from the early 20th Century, but on closer inspection we may note the curious rounded and stepped relief to the wedge shape, and the slightest hint that the stocks of the planes may be tapered in their height from a central point. It can be argued that these are merely an artistic impression by the illustrator, or even just poor observation, but from my own studies of aforementioned surviving planes from this period, I would consider them to be a fairly accurate observation of bench planes from that date.

So, what are the salient features of these early bench planes that make them different, and in my own humble opinion, superior to bench planes of the late 19th and early 20th Centuries, and why did these small, but important details slowly disappear?

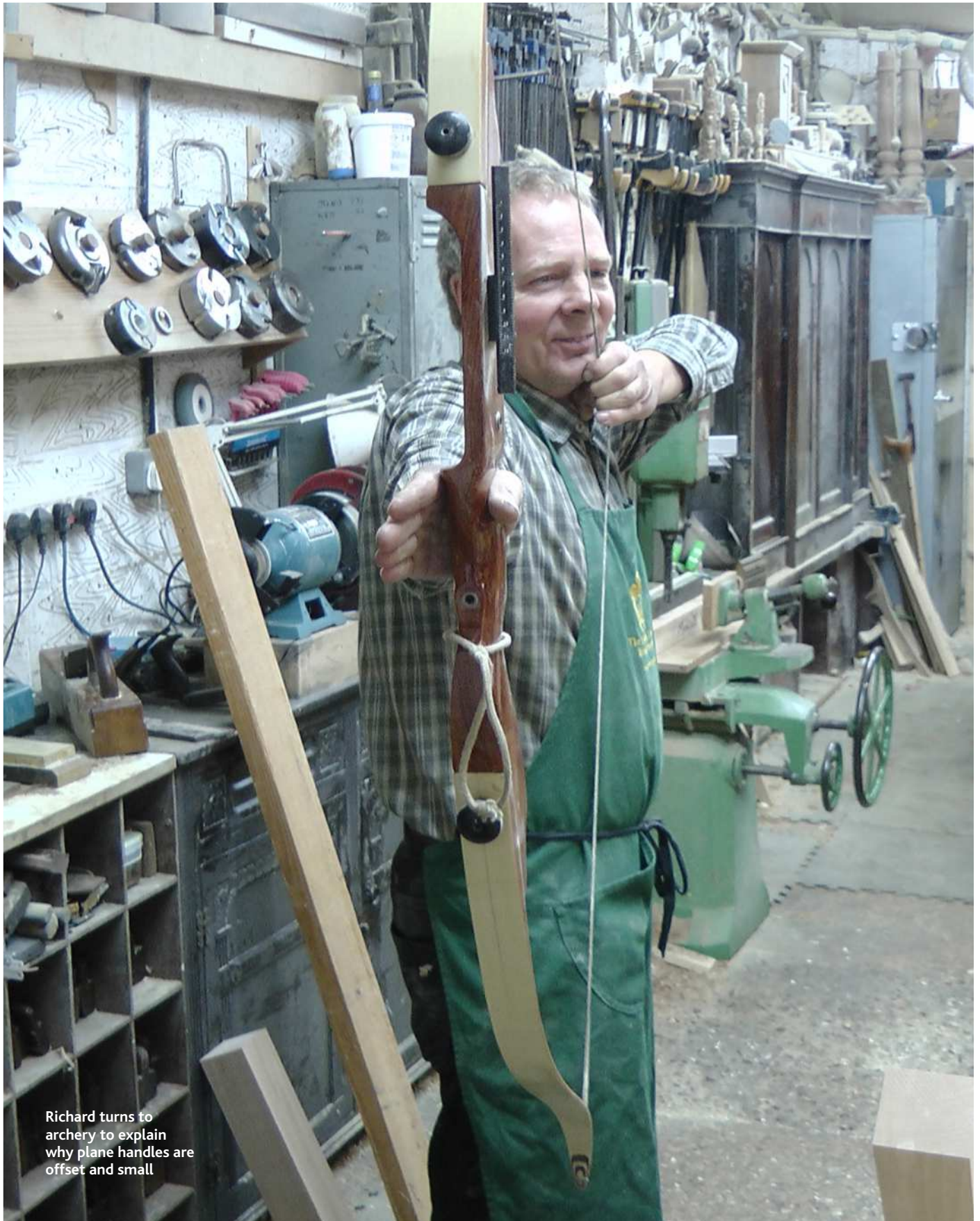
Slip of artist’s pen and the tapered body

Firstly, let’s look at that curious wedge shape, and discuss the evidence that proves it was not just a slip of the artist’s pen. I have in my own personal collection, a small panel-raising plane by Robert Wooding of London. The wedge shows a remarkable resemblance to the planes in the Jennion trade card, and it is one of three panel raisers that I know of with the same feature. I have another panel raiser by Wooding, and a larger jack-sized panel raiser by John Anderson, also of London. The top of the wedges are curved to neatly match the profile of the round-topped irons found in early planes, but more importantly the sides of the wedge are relieved. One could assume this may have just been done for decorative effect, but I feel it had a practical application. When laterally adjusting the iron on conventional wooden bench planes one has to be careful not to strike the side of the wedge as it is generally the same width, or slightly wider in some cases, than the iron itself. This could result in the wedge being dislodged, or worst-case scenario splitting the side of the plane’s cheek, but if the side of the wedge is relieved this is much less likely to occur.

Let us now move on to the subject as to whether the main body of the plane was tapered along its length. Until recently, I had very little evidence to show that this may have been a feature of early British bench planes, but what we do know from



The original panel-raising plane by Robert Wooding of London dating to around 1710. This was the inspiration for my own wedge pattern (left). Note how the upper portion of the wedge is relieved across its width. This has an advantage when laterally adjusting the iron as there is less chance of accidentally striking the side of the wedge with a hammer



Richard turns to archery to explain why plane handles are offset and small



surviving examples is that early Dutch planes clearly display this feature. Commercial plane making began in Holland as early as the mid-17th Century, but there is no evidence to suggest that British commercial plane making took off until after the Fire of London in 1666. It is a commonly-held belief that early British plane makers were influenced by Dutch design, and if so, one could surmise that they would take up the tapered design. Sometimes early features of British plane design were slow to die out, and a recent discovery may lend further proof to British plane stocks having once been tapered. A year or two back I purchased a couple of late 18th Century bench planes in an auction (a jack, and triplane) by John Sym of London. They were both in a poor state of repair, and well-worn down with use, and on first examination I failed to notice that there was a very slight, but defiantly intentional taper to the bodies.

One may ask why taper the body anyway. My own experiments have led me to two possible conclusions. Firstly, I feel the taper lowers the centre of gravity of the plane, much like a modern metal bench plane, but unlike its steel counterpart, it once again reduces its weight. This is something worth taking into consideration if you were going to be spending long hours of your day preparing rough sawn stock. The second reason is a little more complex. We are all aware that wood by its very nature is always on the move depending on the humidity of its immediate surroundings, and seasonal variations. Wooden bench planes are not immune to this effect, so stability is always going to be an advantage. If one imagines a plane stock

as being a bundle of drinking straws, moisture is quickly taken in or lost from the end-grain of the toe and heel of the stock, and in the centre at the throat, but hardly at all in the middle sections of the plane, by cutting through the 'bundle of straws' on an angle from the top, a more even distribution of exposed cell ends is created. The same effect is achieved on a wooden coffin smoother by curving the sides (although this is also a lot to do with the ergonomics of the plane).

Shape of the handle

The last feature I want to look at in early bench planes is the size, shape and position of the tote (handle). There has been quite a bit of interest and discussion in recent times about offset totes. Of all the features on early planes, it looks like this one may be making a bit of a comeback as some modern makers have started to play around with the concept. There is plenty of concrete evidence that early bench-style planes had offset totes as many examples have survived. It would appear that the earlier the date of the plane, the more extreme the offset, with the very earliest examples being almost on the very edge of the stock. By about 1820 the tote had moved to a central position in the body where it remained until the demise of wooden planes in the 1960s.

Early totes tend to be much smaller than later examples. The usual theory as to why this may be is in my opinion pure bunkum, suggesting tradesmen's hands were smaller back then. So why the offset, and small size I here you ask? Well once again this is a complex question to answer. While on a



Holding the handle with your fingers along the side of the plane (right) is even more comfortable when the tote is offset (above).



recent visit to my workshop to discuss this article, I tried to explain my feelings on this subject to *Quercus*. I feel it all comes down to ergonomics, and comfort. As I explained to the team, I used to shoot a lot of target archery, and we would often discuss something known as the 'archer's paradox'. A modern target bow is offset depending on if you are left or right-handed. In an ideal situation the archer would face his target and shoot directly through the centre of his body, but this clearly isn't very practical. So the archer must compromise and lean out to one side of his body, hence the offset of the bow.

This is much the same situation as when we stand at the side of our bench and plane a piece of wood. One would not think that by moving the tote of a plane over by what amounts to no more than an inch would make much difference, but having used my own planes of this form for a number of years now, I am convinced over a long session of planing it would aid the craftsman considerably.

Going back to archery for a moment, another analogy occurred to me as we discussed holding a plane. A bow has a grip, but this is possibly the worst choice of description for it, as the last thing a target archer wants to do is grip the bow. They merely push against it with the palm of their hand, and in actual fact they wear a loop around their wrist to prevent the bow falling to the ground after the arrow is released. You do not want to create any form of tension in your wrist as you lose your shot as this would transfer to the arrow's trajectory. I find much the same when planing. I prefer to merely push against the tote, and let my fingers lay down the side of the stock in a

relaxed manner. This helps to reduce fatigue when planing for long periods. This method of holding the tote is made much more comfortable by the offset, and as a maximum of one finger if any at all is placed around the tote it can be much smaller, and once again lowers the centre of gravity of the hand behind the cutting edge.

The title of this piece was the De-Evolution of the British Bench Plane, and my reasoning behind that is my feeling that it reached a pinnacle of design in around 1700, and spent the next few hundred years de-evolving into its current form. In my next article I would like to discuss why I think this occurred, and how I have tried to turn the clock back and recreate my own version of what I think an early British bench plane may have looked like, and how I went about creating them (below).



The Last of the Flasks

Historian and bodger, *Stuart King*, finds craftspeople turning flasks in Romania



Stuart King considers Ion Constantin as quite possibly the last in a long line of craftsmen. Ion not only turns flasks but also a skilled spoon maker. Stuart's DVD of Ion's way of making flasks may well be the only evidence of the techniques and processes of a modest man and his wife

I have made a number of trips to Romania, the first being in 1990 as a result of receiving a Winston Churchill Travelling Fellowship Award to study wooden folk art. Most of my time spent in this enigmatic country has been travelling in the countryside to meet 'ordinary folk' and to capture the crafts that have been an integral part of their lives.

On one trip high up in the Transylvanian forest I encountered a charcoal burners' camp. These forest workers were burning seven traditional clamps in rotation. I well remember that it was the wives that did the bagging-up; I could hardly see them amid the fine charcoal dust, their faces grey with carbon and their lungs, well who knows!

In 1998 I made a memorable visit to a very rare craftsman. I had Robin Wood for company and our destination was the outskirts of an aluminium smelting town to the 'gypsy quarter'. I had made a previous visit in the winter snow with my friend and translator Zina Manes-Burloiu to meet Ion Constantin and family to arrange the subsequent filming of Ion later in the year making a wooden drinking flask on his pole lathe.

The Constantins had no phone so there were a lot of crossed fingers hoping that all was still ok, and it was. The family was very hospitable towards us, as were the curious neighbours. They were not used to a film crew (my camcorder!). Wooden drinking flasks have a long history and are probably based upon even earlier ceramic examples that go way back in pre-history.

Simple examples were used by travellers and shepherds; and being wood they were robust and could be constantly replenished at each stream encountered. For this reason they were also used all over Eastern Europe by the military for

centuries. Decorated examples were used to hold wine and were often presented to the groom to take centre stage during the wedding feast.

Ion Constantin probably represents the very last of a long line of incredibly skilled craftsmen who themselves see what they do as nothing more than that. It's what they do! To us in the 'West' hand skills have diminished to such an extent that to be a 'craftsman' is either something to be admired or to be thought of as quaint, hippy like, or not understood at all, divorced from 'normal life'. Where is the blacksmith that once could be found in every English village? But I digress. I do this more and more as I get older.

Although drinking flasks were turned from a variety of woods Ion Constantin prefers willow, the green logs being sawn into length with a cross-cut saw with the help of Mrs. Constantin. The pole lathe is set up in the back yard and is also used to turn bowls. The unique feature of these flasks is that they are turned on two axis. The hook tools are forged from iron reinforcing rods (as used in the construction industry).

As Ion was in his 70s in 1998, it is probable that there is now no continuity of this ancient tradition. He was not only a skilled pole lathe turner but an accomplished spoon maker. I am so privileged to have spent some time with this modest craftsman and so glad that Ion was gracious enough to allow me to record his skill. As far as I am aware my 1998 video is the only footage in existence that captures this rare, possibly extinct tradition.

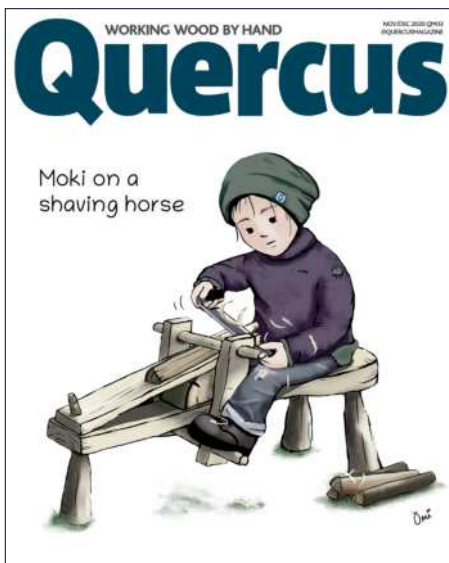
This video is available on my Stuart's DVD 'A History of Turning', at stuartking.co.uk/dvd. It costs £20 plus p&p.



You can see the cutting of logs for turning flasks on Stuart King's DVD, The History of Turning



Letters



CARTOON: OMI GATES

Sawbench thanks

Thanks for the article by Robin Gates on sawbenches. This was very timely for me as I had just completed refurbishing an old (100yrs?) family toolbox and I needed a bench to put it on. I had procrastinated for weeks debating various styles of bench construction, materials to use, types of joinery, etc... Robin's article on his sawbench was refreshingly direct and straightforward. I stopped navel-gazing and started sawing and had a sturdy, functional bench in a couple of days. Thanks, and I love the magazine.

Peter Marshall, England



Spokeshave kits

Thank you for John Lloyd's article on spokeshave kits. I agree that building a spokeshave helps you understand the critical features for better hand work. However, the 'newbie' might be intimidated if the initial foray involves the shaping of the wooden body to fit the blade and the hands. An option, which involves only the shaping to fit the hands, as an initial exposure to making a kit, is the package available from Hock Tools. I teach hand-tool classes in my retirement community woodshop, and have had several participants elated with the results they obtained. We then moved on to building a Krenov-style wooden body hand plane (above) from scratch.

Bob Simmons, Arizona, USA

Quick stools

The latest issue was your best effort yet. I absolutely love the balance of features. You asked for photos of the Quick Stools. I recall Alison Ospina's challenge in 2015, and I made and sold four on behalf of our village woodland conservation



project. I am thinking that I might have a go at running a course for some of our members.

Mike Weston, England

Unexpected

When I subscribed to *Quercus* I was not sure what to expect. It appeared to be an eclectic group of woodworking topics in a magazine format. But, with the latest issue, I could not be more delighted with the collection of articles. The features are interesting and on topic. It is the best edition yet. And, yes, there is a passion for paper that will endure.

Charles Wells, Maryland, USA
Thank you. Actually, I don't think we knew what to expect either!

NG

Queen's English

My subscription started with No.3, and I was pleased enough to order No.2 and No.1. However, I may need to sign up for a Queen's English second language course. I can figure out spelching, but what is a Turbo coachscrew? And what does a swill-basketmaker do? My spell-checker doesn't recognise those terms, but am very happy to see articles by one of my fellow Colonials, Mary May. Keep up the good work.

Neal White, South Carolina, USA
Good point. We will do better with explaining some of the unusual words of woodworking as they appear. A Turbo coachscrew is similar to a coachscrew, just faster. A swill basket is oval with thin oak strips on a hazel rim. Owen Jones makes them in the Lake District. We must be doing something right for you to be buying back issues. Thanks.

NG

From the Ether

Words & Photos of a Wider Wilder World



"You will often see this tool in my pictures," says Dominic Campbell (@dominicsmcampbell). "I always have it at hand. I often get questions about it, so I thought I'd clear that up. It is an oil pot, rag in a can, tool oiler, aburatsubo etc... It is used to lubricate cutting tools more efficiently. If you haven't used one, you will be amazed at the difference. And at the end of the day, a quick rub of the tools in oil helps prevent rust. I use an old t-shirt in a shaving cream pot. I like having a screw lid, and 3-in-1 is my oil of choice. You can use anything, but we are careful of oils that go rancid. I have never found the oil to harm any glue-ups or finishes, but if you are super-worried it doesn't take much to do one final clean pass to remove any oil that might remain. It's a wonderful tool, and if you haven't got one, I urge you to give it a go." Dominic produces wagatabon in his garage, as you may



have noticed last issue, and far away Markus Tobert (@markustobert) did much the same, only using his garage as a grinding shop. "I had a grinding wheel on my hand grinder in the basement," he told *Quercus*, "but I didn't feel like grinding in my basement, and could anyway run to the garage for that, so I got a 1in hard felt wheel from Lee Valley and charged it with honing compound. It's a joy to use and you can control the speed too." Meanwhile David Erlam is yet another reader to build a straight-legged sawbench (below) from Robin Gates's article in QM02. "Up until now I have used my workmate for sawing boards, but angled legs and winding handles get in the way of the saw. This is a much better idea. I'm considering making a clamping arrangement to go on the end of the bench so I can use it as a shaving horse. This will be bolted on when required. I'll let you know if it works!"



A Sibling Spoon Contest

The Spoon Family Porter could not resist the challenge of a pandemic competition

This has been an unprecedented year for everyone with the pandemic and isolating. Because our Dad was also ill, our family found ourselves spending more time together; four siblings in our 60s.

The two brothers learned spooncarving with spokeshaves and gouges on reclaimed wood at a workshop several years ago and taught our Dad. They decided it would be a good pastime for the two sisters. We love wooden spoons and decided it couldn't hurt to try to make one. We weren't prepared for the obsessive quality of carving spoons. One spoon wasn't enough. We kept it up. In fact, the four of us bought every book we could find on spooncarving and read about carving greenwood with knives. We bought the axes and knives. The brothers built shaving mules, chopping blocks, mauls - whatever we needed. Little brother even made a Swedish lap vise for little sister to take home with her.

Little brother had no problem taking to carving with knives. He has been carving little people and animals for some time. The sisters' only experience with knives was in the kitchen, and Big Brother adapted pretty quickly with his knowledge of wood. He is a cabinetmaker.

We are a competitive family. All summer we set up competitions between the four of us with the rest of the family as judges. We made sourdough bread and baked it in Dutch ovens over charcoal. We had a chilli cook-off also outside in Dutch ovens. We had an Apple Pie Making Contest in Dutch ovens. Now it was time for a spoon carving contest. We decided that rather than having an all-out competition, we would make a learning comparison.

We would compare carving greenwood using spokeshaves and gouges with using axes and knives to find the best method for us. Which is quicker? Which is prettier? The brothers would use axe and knife; the sisters would use spokeshaves and gouges. We set a time limit of two hours. Little Brother was in charge of sourcing local greenwood and making spoon blanks. He chose catalpa which none of us had any experience with, but it is softer and would make it easier to carve. He made cooking spoon blanks knowing anything with curves too sharp would be too hard for the spokeshaves to handle.

The brothers had the most experience, but had let it go slack for a few years. The sisters had only started carving a few months before with absolutely no skill or knowledge. Our comparison wasn't very scientific. It was meant only as a fun learning experience.

The day for the comparison was a beautiful September day, sunny and warm. We got everything ready. The sisters-in-law had cameras ready. The timer was set and we were off. The sisters were set up in the shop where the workbench with a vise and the spoon mules are. The brothers were right outside the big door with chopping blocks and chairs. It wasn't long until we saw some differences. The brothers quickly finished their axe work and sat in chairs quietly whittling and watching in the cool breeze. The sisters furiously whittled with spokeshaves, sweating under the effort in a more closed in space.

The catalpa was porous and grew 'hairy' with the spokeshave,



Dad is given the unenviable task of comparing the spoons!

making it hard to keep smooth. With knives, the brothers were able to control the hairiness better. When the timer sounded, we were all ready for a break. The two knife-carved spoons were further along; almost finished. The brothers had even carved a little bit of ornamentation in the handles. Their spoons were ready for just a little bit of finishing and burnishing. The sisters' spoons, however, needed more work including sanding. We found that catalpa is soft and easy to work with and has a pretty grain pattern. Because it is so porous, we aren't sure how well it will hold up in use.

Big Brother said he learnt what he knew all along. He likes to use the tool that fits what he's working on. He likes spokeshaves for reclaimed wood and even some of the carving on greenwood. He likes knives when working sharp angles and curves. We all have to agree with his assessment. We all saw areas where we need to hone our skills. Big Sister said she has difficulty achieving symmetry. Maybe crooked spoons are the best for her.

Two things were cemented for us after the competition. We love to compete and we will continue to make spoons. Within minutes of having our spoons photographed, Big Brother was teaching Little Sister how to hold a spoon when using her hook knife. He said he holds it the same way he holds a horse's hoof when he's putting shoes on it. Little Brother stepped in with his method. He cupped the bowl of the spoon in his hand and used his thumbs to help hold it.

Are we headed for another competition? Yes. Next is sourdough biscuits outside, in Dutch ovens, of course. After that maybe the best spoon, start to finish.



The four Porter brothers and sisters complete their sibling challenge with four catalpa spoons. Big Sister (left) using a spokeshave on the neck of her spoon (left) while Little Sister is shown by Big Brother how to use a hook knife (right). One problem with catalpa is that the grain is fibrous and hairy



Julia Kalthoff

On a trip to Sweden, *Quercus* met the founder of a new brand of axe in Stockholm

Oh yes, you can take the woman out of the forge, but oh no, you can never take the forge out of the woman. So it is for Julia Kalthoff, who was intoxicated by metal in her teens, by the idea of it being stubborn, holding its forged shape for millennia. “I was crafty as a kid,” she says now. “My mother had a fabric shop and I’d go there to make clothes, dolls, things after school. But I liked to use my muscles and I found that metal is a crazy, tactile material. You can make it follow the shape of your body and it will stay like that for thousands of years. It touches all your senses.”

So it was that aged 19, fascinated by forging, she was directed towards Hälsingland, north of Stockholm where her stepfather grew up and where Gransfors Bruks are based. There she offered to work for free to pay for the class. She worked as a guide in the company’s axe museum, and documented the history of their famous Hjärtum axe, which had been forged for three generations.

She was with Gransfors for the summer of 2008, but instead of leaving then, at the end of the season, she was asked by the owner, Gabriel Branby to stand in as acting CEO of Wetterlings, which he then and now owns. He said to her: “You are alert and have a good sense of things.”

“I worked my ass off” Julia tells *Quercus*. “But it was pretty logical what to do. I just had to react to phone calls and fix things. I was an organiser. And I had a honeymoon period when everyone thought I was Gabriel’s daughter because we both had a habit of running round the forge. But then I started asking why should we make ugly axes. Why not only nice ones? Or sell axes where we don’t make any money?”

So 18 months later, having worked as a manager, Julia became full-time CEO, until in summer 2013 she decided it was time to move on and to choose for herself what she wanted to do next. She chose to go to university, for a BA in Business in Uppsala. “I felt I’d be too old to go to university otherwise,” she remembers. “I wanted the full university experience. I like to study. I am a nerd. But I also wanted to have fun, with no responsibility.”



Then, one morning halfway through her degree, Julia stepped out onto the balcony of her university apartment. She’d just finished a happy, long breakfast. “It was sunny,” she says. There she stood, looking across Uppsala, when she was struck, struck by an unlikely thought from nowhere.

“It struck me that I can continue to work with axes. I thought I was done with axes. But if I do everything myself, I thought, I can do it exactly as I want.”

With axes on her mind, Julia finished her degree 18 months later, giving a TED Talk along the way (which is still available on YouTube if you search, but never viral she promises). Once she had graduated, and she’d had her fill of fun, she had an idea to buy a house on the top of a mountain, but she was plagued with doubts. “I decided a hundred times not to buy the house. In the end I just couldn’t not buy it. I longed to go to the forest and be by myself. I was on the mountain for a year, all on my own. It was really difficult but I had no intention of moving away. It had just one bedroom, but I only used the living room because there was an open fire. It was really stupid. It was very icy and you couldn’t drive in the winter.” It

did, however, give her time to work on axe prototypes and a proper business plan. “I wanted to answer all the questions about what makes a good axe and a great axe, like the edge, the balance point, the curve of the handle or the steel to use.”

“I was very naïve. I thought it would be up and running in three months.” That didn’t mean, up on the mountain, there weren’t yet more doubts. She struggled to find a blacksmith skilled enough to meet her expectations. “I am very stubborn about the details.” “I decided to quit, but instead I threw the whole business plan away. I just wanted to develop one carving axe because I love to carve. If everything else failed I would still have one sample of a good axe to carve.”

Julia forged prototype after prototype and sent them up to Beth Moen, who teaches at Sätergläntan, the slöyd college 80 miles north of Stockholm. “If she says it is really good you know it is really good. After six months we were happy.”

Then Julia explored the science of forging with the help of the renowned metallurgist Dr Fredrik Haakonsen, who is a specialist in edge tool metallurgy. He told Julia that die forging is the best way to make consistently high quality axes. “It works on a shorter temperature spectrum, so you can use a higher quality steel and be kinder to the steel.”

Then there were all the details for finding good wood for the handle, setting up a hardening process, sharpening equipment, not to mention sorting out a website, photography, press, branding and much more. “Then I just released the axe and had no idea what would happen.”

She and her assistants, David and Daniel, try to make no more than 40 axes a week, except just before Christmas, of course. “We don’t need to grow,” says Julia. She’d rather spread the word of using an axe, and in September they started running an evening workshop every few weeks in the Stockholm city centre workshop. “I love to carve. It is not enough to have a carving axe. You need to carve as well. Carving is like meditation. I like to invite people to be in the zone.”

Visit kalthoffaxes.se or @kalthoffaxes for details of their carving workshops, starting again in March.

