BACK TO BASICS:

CHOOSING TOOLS & MACHINERY

Jeremy Broun and **Andrew Lawton** – two makers with 100 years' combined experience – imagine starting up again and the tools and equipment they would choose

There is nothing as satisfying as acquiring a new tool or machine and nothing as important in woodworking than having the right tool for the job. I recently met up with fellow furniture designer-maker, Andrew Lawton, at the Axminster Tools & Machinery store in Nuneaton, which is to host the exhibition for the 2020 Alan Peters Furniture Award in July (1st prize sponsor). I thought it would be interesting to imagine, if we were starting all over again, which tools and machines we'd choose and I immediately realised that between us we probably have 100 years' combined woodworking experience, most of which is professional – a sobering thought.

Axminster is the biggest name in tools and both Andy and I already have several pieces of Axminster equipment, albeit of contrasting sizes, such as a little and large drum sander, but both delivering the same precision. Our brainstorming was fairly brisk with so much to take in at this impressive main Axminster store where we also met up with *WW* Editor, Tegan Foley. She joined in with the tour around the vast store and held the camcorder for the impromptu video I made (see link on page 31).

Between them, Jeremy Broun and Andy Lawton have nearly 100 years' combined hands-on experience

Horses for courses

Firstly, what tools for what purpose? Andy Lawton set up a fine furniture making workshop in 1980, probably an ideal space for a solo worker with some fairly heavy-duty machines, generously spaced apart. He makes a living creating contemporary furniture to individual commission: dining tables, cabinets, dressers and chests. Dovetails, hand-cut the traditional way, are a strong feature of his work. Whereas, in contrast, I seldom use dovetails. I set up a tiny workshop in 1973 taking on any woodwork in order to finance some innovative furniture designs: batch-produced products with individual commissions. I also build outdoor structures and guitars. Andy still has the same workshop and my current three workshops are very small but crammed full of compact, sometimes moveable, machines and equipment. So we therefore have different criteria for space, tools and machinery.

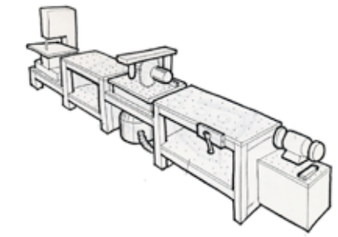
Dresser in oak by Andy Lawton – dovetails are a strong feature of his work

Initial tools & equipment

Andrew Lawton: The workshop I took over offered 200sq.ft ready for use. I had little money and my only machines were an ancient Wadkin bandsaw that cost £40, a new Startrite sawbench, a second-hand surface planer and a hollow square mortiser. Portable power tools were an electric drill and belt sander. I had a basic kit of good quality, mainly second-hand tools. Over time I bought more machines and tools, such as a bag press, which allowed me to do veneered work. Once refurbished, the bandsaw allowed me to deep cut my own veneers.

Jeremy Broun: I started with no capital and just a bunch of hand tools from my Shoreditch college student days. The only machines I owned for the first four years were a small museum piece bandsaw and a second-hand radial arm saw that cost me £50. My only power tools were a DIY drill, jigsaw, Makita router and orbital sander. But they did the job and dictated how I designed furniture. I bought in dressed 6×1.5ft pine for my early high-backed rocking chairs and coffee tables, and after then I purchased a small 10in planer/thicknesser and 12in bandsaw, which served me well for many years.

Zigzag table designed in 1978 by Jeremy Broun – typical of repeat items created in his workshop using small machines and power tools



Artistic sketch of Jeremy Broun's long and narrow main workshop where space is at a premium. A purpose-built 2×2in and plywood bench houses two key power tools: a bandsaw and radial arm saw

The craftsman's altar

If starting again, what would we buy and what changes would we make? The bench is often regarded as the craftsman's altar and it is here that Andy and I probably differ most in approach, largely dictated by space.

AL: My first bench was the standard softwood joiner's item with a central well. I replaced this with a redundant school bench, for which I made a tail vice, and this in turn was superseded by a proper continental cabinetmaker's bench in beech. If starting again, I would probably buy the Sjöbergs Elite 2000 Cabinetmaker's Bench (**code: 508223**), without storage.

JB: Whereas I do have a converted railway sleeper bench, I also have purpose-built fitted benches along one wall, capitalising on limited space that centres around the travel of a board of wood in a narrow workshop. The rationale is simple: if the board is too large or heavy to move singled-handed, then portable tools are used, such as an industrial quality jigsaw to reduce it to a manageable size. Once the board is on the bench it can be ripped, cross-cut, jointed and shaped. For specific cabinetry work, I would choose the Sjöbergs Super compact bench (**code: 504792**).

Andy Lawton's workshop with traditional beech bench

HAND TOOLS

Measuring & marking out

AL: For a beginner I suggest a tape measure (**code: 102569**); 600mm steel rule (**code:104520**); try square – preferably a steel engineers' type (**code: 102463**); sliding bevel (**code: 106415**); marking knife (**code: 101167**); combined marking gauge & mortise gauge (**code: 106422**); straightedge (code: 106472); and an engineer's scriber is a useful and inexpensive tool to have as well (**code: 953422**).

JB: Similar to Andy, but also a combination square (**code: 105400**) as a multi-purpose tool – for example, for outdoor work.

Planes

AL: A Rider No.5 jack plane (**code: 506562**) will cover all aspects of general planing. A rebate and shoulder plane would also be high on my list (**code: 506567**), as would a scraper plane for smoothing difficult grain, and here I would go for the models based on the old Stanley No.80 type (**code: 506574**), as well as a flat spokeshave (**code: 105211**).

JB: In terms of planes, I'd have to go for a smoothing plane (Rider No.4) and a jack plane (Rider No.5), plus a round and a flat spokeshave (No.151).

Andy and Tegan looking at sliding table saws

Saws

AL: A cross-cut handsaw for rough cutting boards to length (**code: 212476**). 'Hardpoint' handsaws are popular today, but they eventually become blunt, and cannot be re-sharpened and so are scrapped. Should we really still be making throwaway tools given the looming global environmental crisis? I would choose again a hand rip saw (**code: 506422**), two tenon saws for ripping (**code: 212480**) and cross-cutting (**code: 91036**), a dovetail saw (**code: 506422**) and a coping saw (**code: 502229**). Ideally I would want to try one out first, however.

JB: Guilty, me lord – I use low cost hard-tipped tenon and cross-cut saws (Irwin are the best) but very seldom throw them away, as I do most cutting by machine or power tool. Given the choice, I would choose the Axminster carcass saw (**code: 950978**).

Chisels

AL: A set of bevel-edge chisels ranging from 3-25mm (**code: 103732**) plus a selection of firmer chisels for heavier work and general carpentry. Firmer chisels are more robust and designed to be struck with a mallet. I'm more concerned with the quality of steel than what the handle is made of, however.

JB: Actually, I think a chisel is a really nice thing to handle and has that 'feel good' factor, irrespective of the quality of the steel. There are few poor quality chisels today and, although I have many inexpensive ones, I just sharpen them more frequently. The same as Andy, but I'd also treat myself to a set of Japanese chisels (**code: 110029**).

Andy Lawton pays great attention to the traditional method of sharpening tools

Hole boring

AL: Most workers will have an electric drill, but it's hard to choose one. A set of bradpoint drills (**code: 102530**) plus a selection of Forstner bits (**code: 10596**) should cover it.

JB: I frequently use an array of cordless drills for designated tasks, so I'd be happy to stick with what I have. Maybe I missed it but I couldn't find any corded drills, although there was a vast array of drill bits that I would choose: a 25-piece twist drill set (**code: 105931**), bradbits, flatbits, Forstner bits, tank cutters – always something to add to.

Clamps

AL: One can never have too many cramps! I'd suggest a minimum of four 1,200mm all-steel sash cramps (**code: 505580**), plus the same number of 150mm G cramps (**code: 505516**).

JB: Aluminium sash clamps: four 610mm (**code: 505570**), four 1,220mm (**code: 505572**), and an variety of G clamps ranging from 2-6in. The Axminster Trade clamps look good and deep throat versions are always useful – four of those, please!

Hammers & mallets

AL: A claw hammer for general carpentry work (**code: 117835**) and a Warrington pattern hammer of around 500g in weight for cabinetmaking (**code: 118720**).

JB: For me, it's a claw hammer, lump hammer and a wooden mallet (**code: 105402**).

Grinding & sharpening

AL: Plane irons and chisels *must* be kept sharp; the most expensive plane on the market will be useless if the blade, or iron, becomes dull and nicked. For honing, I would choose Japanese waterstones with a grit size of 1,200 and 6,000 (**codes: 510464** & **510465**), and I'd go for a slow speed water-cooled Tormek grindstone (**code: 507158**), which prevents overheating and the temper of the steel being lost.

JB: The Axminster Craft wide stone grinder would do me (**code: 105117**). I have traditionally used a designated disc sander (ensuring dust extraction is not connected) to sharpen my chisels and plane blades, achieving flatness and the correct bevels in a fraction of the time when compared to conventional methods of sharpening.

Power tools

AL: A mains electric drill with hammer facility, cordless drill (**code: 506745**), biscuit jointer, random orbit sander, belt sander, jigsaw, ¼in and ½in collet routers, and perhaps a router table if required.

JB: Oh, where do I start! Everything that Andy has and more. A glue gun (extra pair of hands) (**code: 800346**), cordless combi drill (Makita brushless), and the same with the jigsaw.

Machines

AL: A sliding table panel saw (**code: 101256**); 260mm planer/thicknesser (**code: 101156**); heavy-duty 457mm throat bandsaw (**code: 105876**); mortiser (**code: 102215**); spindle moulder (**code: 501209**); drum/wide belt sander (**code: 106004**); woodturning lathe (**code: 105889**) and a pillar drill (**code: 505207**).

JB: A large and small bandsaw: the Jet JBWS-15 (**code: 105875**) is capable of cutting deep veneers when fitted with the correct blade. The Craft AC2606B (code: 105095) offers a throat of around 260mm, which is adequate for much general work. I would again buy a radial arm saw – the Axminster Trade AT400RAS. I use a milling machine for drilling and routing, so I would choose the ZX30M mill drill (**code: 505109**) and I'd add a power feed (**code: 700095**). A 260mm planer/thicknesser (**code: 600671**), a 560mm drum sander (**code: 102303**), plus a belt sander (linisher) (**code: 10170**). Also, a large disc sander, milling machine, metal cutting TCT saw, vacuum press (for veneering), plus a wood and metal lathe.

Dust/chippings extraction

We are both agreed it essential for machines and some power tools to have chippings extraction and we both have extraction units. For general woodworking and adaptability, one or two portable units would suffice (**code: 10525**) or a neat wall-mounted unit (**code: 508483**). Of course eye, ear and face protection should also be worn.

One machine to take home

AL: Something I could do with is a decent size disc sander for trimming frame mitres (**code: 105110**).

JB: If I could find the wall space, I could use a vertical panel saw (**code: 500464**) for rapidly dimensioning 8×4in plywood sheets. The future is plywood for me.

Conclusion

The 20 minute video on YouTube (**http://bit.ly/3dbzMVW**) expands on this article with both Andy and myself explaining more as to why we prefer certain tools and what we feel would be useful for the beginner setting up.

I think we are both agreed that having the most expensive tools may feel good but they offer no guarantee of good craftsmanship and, equally, inexpensive tools do not necessary mean poor quality. Andy pointed out that the great cabinetmakers of the past (including the Arts and Crafts pioneers of more recent times) whose work is admired in collections and museums, worked with far less sophisticated tools than we now have available to us.

For anyone starting up as a furniture maker, choose wisely according to what kind of work you intend doing.

Jeremy checks the sturdiness of a power tool bench