Woody's Wudoku

In case you don't know, the objective is to fill the grid with numbers 1-9 so that each column, each row, and each of the nine 3×3 sub-grids contain all of the digits from 1 to 9.

2					8	3	7	
3		4	1					
1				9			4	
5				1			9	
		2	3		7	1		
	8			2				3
	9			8				6
					5	9		4
	1	3	4					

Forthcoming Attractions

April 1st - Demo by Dave Springett May - Ken Croft (Barley twist demo) June 3rd - Hands on evening July 1st - Pole lathe and cake eating visit to Wellesbourne August 5th - Hands on evening

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March is of course AGM month, We are also joined this evening again by Mo Mead, with his extensive stock of nice African woods.

Last month Mark Hancock can along to show us how to make a rocking vessel, no not a cross-channel ferry, one of these:



This was a good demonstration, showing many different disciplines. Mark covered a lot of ground, Many of which I for one hadn't seen or tried before. Mark started off by roughing out the profile and turning the end spigots. Not surprisingly he started with what I've always known as a roughing gouge. Mark refers to this as a spindle roughing gouge. The reason for this distinction is that apparently it can be very dangerous to use this tool when roughing out end grain workpieces, as the tool can snap off at the tang (where it's thinner in section) and the pointy bit can fly off and bury itself where you rather it didn't.



The workpiece in this case was wet, or freshly cut, which meant that it cut very smoothly and the cuts came off in ribbons, rather than chips.

The advantages of turning wet wood is that The wood is easier to obtain in larger sizes, easier to turn and most importantly, cheap.

Having turned the one spigot that was to hold the workpiece in the chuck, Mark put a deadcentre in the mounting

thread in the headstock, ad it's not unknown (well, it was by me) for the thread to collapse and break off when under the stress of having a chuck with a long workpiece mounted. The profile wasn't finished prior to remounting in the chuck, as particularly when the wood is wet, the hardness can vary across the section, thus it may not end up be held true in the chuck.

Cowards like me would at this point put a supporting centre in the tailstock at this point, but not Mark. He had a monster chuck done up nice and tightly and of course it was fine. The workpiece was now held at what would be the sharp end of the finished piece and Mark used a 3/8" gouge with a swept back grind, to complete the profile at the opening end. Grinds like this help you to get into tighter corners.

It helps make a smooth shape by making sure that your tool rest is smooth and polished so that the chisel slides across it. My cheap and nasty Sip lathe has a tool rest made of Parmesan cheese, so I have to do this quite often.



Another cunning device to make shapes flow nicely together is the cabinet scraper. Put a burr on it by running it across a grinding wheel with the tool rest horizontal. Use the scraper on the lathe without a tool rest and have it trailing the direction of cut at 30-45°. You can but cabinet scrapers from most hardware outlets, they are generally less than a tenner.

Sometimes it apparently works better if you use the non-burred side of the scraper, for reasons best known to itself. Never use it again the direction of rotation though, or you'll end up with it sticking out of the palm of your hand, and you will be laughed at, at the next Offchurch meeting.

And so we move on to the noble art of hollow turning. Hollowing tools are many and various in their designs. If you are new the game, don't fall into the trap that I did and go thinking that if the man on the Robert Sorby stand says that it's OK, and it is not too pricey it should be good. It only means that he is trying to minimise the amount of things he puts back in his van.



Mark favours the shielded kind of tool, and uses Munro Shielded dish or ring type ones.

The nice thing about shielded tools is that you can really control the depth of cut, as it is defined at it's deepest by the position of the shield. You can cut up to this limit be adjusting the angle of the tool. With unshielded tools you are completely reliant on the positioning of the tool, which you can't see of

course, because you're making a hollow form.

Start your hollow form with by drilling it to the required depth. There's no point is faffing about with chisels when what you're trying to do it drill a hole. That way, the chisel is used to work on the side of the hole, not the bottom of it.

Work your way down the hole increasing the diameter from the opening end of the form first, so the supporting wood isn't removed until it needs to be. Hollowing out the neck puts a lot of force on the wood at the chuck end, so the more wood there is there, the less likely it is to surprise you by making a bid for freedom.

Work slowly, with the shield set to make light cuts. There's no hurry, and if you have the shield set for too heavy a cut, the tool will clog up. If the tool keeps grabbing, reduce the depth of cut still further. Take the tailstock off too, as it will get in the way.



When going out to buy a hollowing tool, see if you can try before you buy. According to Mark, the Munro ones are worth a look and Phil Irons makes an articulated shielded one, which you can put your own handle on. Handles seem to be very expensive and easy enough to make. Munro tools are available at <u>http://www.classichandtools.com/acatalog/Rolly-Munro-Articulated-Hollowers.html</u> Phil Irons has a website where you can buy his tools, <u>www.philirons.com</u>. Crikey look at the price of them! Make sure you're sitting down first. Oh yes, and don't be tempted to make your first use of a hollowing tool too ambitious. Start by using the tool on an open form so you can get used to the tool while you can see what you're doing. I don't know why I'm typing this, no normal chap would will ever do that! Go for a huge deep hollow form made of Lignum Vitae! Live life to the full.

It's also worth mentioning that there's no point in making a work of art of the inside of the work if you think that nobody will ever see it. If the neck is narrow, visibility inside will be very limited, so why spend time on it unnecessarily? You can also cheat by painting the inside black which will mask the lumps and bumps.

Once the hollowing was done, Mark cut the ridges in the outside of the workpiece. First cutting the circumferential ridges, or coves. Mark used a mini Munro tool to do this, but a gouge would do just as well.



Cut the coves equispaced, but there's no need to mark them out, just go by the look of it. Your eye will pretty good judge of the gaps between the coves. Now for the bit with power tools! It's time now to do the longitudinal ridges. It's worth marking this out to get them reasonably equispaced, but again, by using the lines in the chuck jaws you can make the lines accurate enough. Any discrepancies can by described in the finished item as "artistic" or better still "organic". That way you can charge twice as much for it in Asda and it won't actually be any different from a non-organic one, allegedly.

To make these ridges, Mark uses a Mini-Abortech, see <u>http://www.classichandtools.com/acatalog/Arbortech-Tools.html</u>



This looks like a angle grinder crossed with a mini chainsaw, so has every feature that any dashing, thrusting DIYing chap could need. Medical insurance is not included. Actually the thing is easy to use and doesn't appear to have a mind of it's own and is

easy to control.



It's not very clear in the picture above but the tool is supported on the tool rest while it's moving across the work. Mark had to hold onto the chuck on our lathe to stop if from turning, which is obviously not ideal, the shaft should be locked if possible.

Next, the piece was reversed for the removal of the spigot. The easiest way to support it for this exercise is to have a tapered piece of wood in the chuck and inserted into the neck of the hollow form. The other end can then be supported in the tailstock centre while the tip is formed and spigot removed,



Apparently leaving spigots is very naughty nowadays, as it shouldn't be possible to tell how the workpiece has been held. Hmmm, I'm going to have to work on that...

Now for the fun bit for all you fans of setting fire to things. Using a

blow torch on the workpiece smoothes all the rough edges, adds a good texture and, of course blackens the wood. This blackening is also known as ebonizing the wood. Mark says that Oak and Ash look really good after torching.

Torching should be done by using the flame of one of the new hot blow torches, running on MAPP gas. This gas burns much hotter than the old propane gas. Burning hotter is good as it doesn't tend to heat up the bulk of the wood, potentially cracking it, as the whole process is quicker.

Clearly the burning process is best carried out outdoors. If you have to do it indoors, make sure that the area is dust free and clear from anything that'll catch. You can use a large fireproof board, such as that which is used for lining chimneys. Personally I'd do this outside, rather than clearing all the dust out of the workshop area, it only takes a couple of minutes.

Mark held the workpiece in one hand, wearing a stout welding glove, while playing the flame over the rocking vessel. You could see the edges blending as the wood blackened. Once the wood is fully blackened, Mark used a water sprayer to make sure there were no remaining hot bits.

The next process is to mount a pine brush on the headstock, spin it up and burnish up the blackened wood.



The wood ends up with dull, silky shine on the ebonized section, and is very smooth to the touch.

At this stage the wood was more or less completely black.

Since we'd gone to the trouble of making the slots in the profile of the workpiece, it seems a shame not to highlight them, rather to make a feature of the dips.



Mark ran a rat tail rasp over the low sections of the wood, to provide a key for the next, painting, operation. The paint obviously won't show up very well over the ebonized wood, so the bits that are painted have to be cleaned up first.

Once the dips are cleaned up, it's time to get out the

next must-have gadget: the Airbrush. Airbrush kits are pretty cheap for what they are. Machine Mart do a kit with a couple of syphon paint jars & a chromed gravity feed cup for $\pounds 25.84$ with the dreaded VAT. To supply the brush with compressed air, you can either by a compressor, or a can of propellant, also available from Machine Mart.

These propellant cans are £10.56, which seems to be a hell of a price for a can of air, but cheaper than a compressor if you're not doing much of it. It looks like you need some kind of a pressure regulator to go between the air-can and the airbrush, but the website isn't clear on this.

Use spirit colours, like those in the Chestnut sample kits for use in the airbrushes. These colours can be thinned if required, I believe you can thin them with cellulose thinners, but if I'm wrong, please feel free to let me know.



If using more than one colour, it's best to start by using the dark colours

first, working your way lighter. Then finish off with yellow which has the effect of brightening up all the colours. Don't finish with a spirit finish, such as Danish oil, as it'll make the colours run, use an acrylic satin spray, for example.

Needless to say, that using an airbrush is best done in the kitchen, using the cooker extractor to keep the fumes away. This will ensure the most enthusiastic reaction from the spouse at the



finished result.

The editor / club takes no responsibility for such courageous actions, or any after effects. On second thoughts, maybe it's best to do this outside too.