

Solution to the last issue's Wudoku

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

Forthcoming Attractions

- January 6th - Club Social (details to follow)
- February 3rd - Demo by Steve Heeley
- March 3rd - AGM
- April 7th - Demo by John Berkeley
- May 5th - Hands on Evening
- June 2nd - Demo by John Johnson
- July 7th - TBA
- August 4th - Hands on Evening
- September 1st - Demo by Chris Eagles
- October 6th - Hands on Evening
- November 3rd - Demo by Peter Fagg
- December 1st - Hands on Evening

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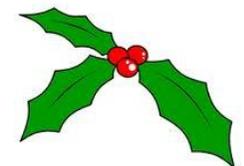
December 2010

December brings us cold weather, with a chance of snow, except at Christmas, screaming children in shops, frantic husbands leaving it too late in the month to have the killer idea on what to buy their wives for Christmas and, of course the Christmas Hands-on session at Offchurch. It doesn't get any better than this!

Last month, we were visited by Anne Hayes, a maker of bespoke chairs. Anne is based in Malvern where the great and the good can visit her shop on a Friday and Saturday and drool over these beautiful chairs and order ones of their own.

Anne got into chair making after doing a one week course in chair making, which was a present from her husband. There's a lesson in there somewhere. She also did a day course in woodturning to get her going. Now she has a 3 month waiting list of chair making and business is riding out the recession OK, so maybe Lord Young was right.

Anne makes Post and Rung chairs, rather than Windsor chairs. I looked up what a Windsor chair is, apparently its one of those where the seat part is held up by four separate legs and the backrest and arms sprout upwards from the seat. The Post and Rung jobs have back legs which also form basis of the backrests, the rungs being mortised into the back legs.



The backs of the chairs are generally one of two basic designs, either consisting of a couple of horizontal rungs and a set of vertical spindles between them, or a series of horizontal bars between the two uprights. The latter tends to be more comfortable, as with the former, the spindles tend to dig into your back a bit, having an odd number of upright spindles is a complete disaster as you'll then have a spindle directly pushing on your back bone. Of course if you don't like your dinner guests, this may be an advantage.



Generally Anne's customers will visit her gallery and come up with a design for their chairs, based on a few guidelines and templates, so the chairs are pretty much bespoke. The seats tend to be either rush ones, like the one here, or solid wood.

The wood for the chairs is taken from wavy edged board, using a straight grained timber for the back legs, for strength. The back legs will be bent back slightly using a steamer and clamping arrangement so that the chair

has a slight recline to it.

It is preferable to use wood that has been air dried for 12 months, rather than kiln dried, for reasons which I failed to write down. It's got to be something with the steaming / bending process, I reckon. Green wood should not be used as it is so whippy that it won't end up the right shape.



If the legs are to be turned use a fast speed, about 2000rpm and be very gentle so as not to thrash away at the corners too much. Start to finish the wood from the middle out to the ends, a bit at a time so you keep as much as the middle will whip round more the less wood there is to support it. The central point of the leg will be the widest for the same reason.

Any turned spindles on the chair will tend to have similar designs on the various parts of the chair, so they match up.

Now for the intriguing bit about bending the wood. In the design of chair that Anne demonstrated, the back legs and the rungs in the backrest would be bent. The wood is put into a steamer box for about 20-30 minutes for every 1" of wood thickness, then removed quickly and clamped around formers to the desired shape. The clamping process has to be carried out within a minute of being removed from the steamer, or the results will be affected.

The steamer box is made of a few bits of plywood screwed together with a loss fitting lid. There are a few holes in the wood, so to allow a flow of the steam through the box and around the work inside the box. Steam is provided in this case by an old Earlex wallpaper stripper, which pipes the steam into the centre of the box.



When the wood is put into the steamer box it is separated by a series of offcuts from the same type of wood, so as to allow the steam to circulate.

When the wood has been loaded, the box is wrapped in an old blanket to keep the heat in. Now is an excellent time to put the kettle on. No sugar in mine, if you're asking.

Also, while the steaming is going on, prepare the various

jigs and clamps for rapid deployment once the wood is removed from the steamer.



When removing the wood, your glasses will steam up instantly allowing people to sneak into the workshop and steal your biscuits, so remove your glasses. Clamp the wood into the jig as quickly as possible.

When making a clamping block for a particular project, be aware that the wood, when unclamped will spring back a bit, so you should make the clamping block slightly more bent than the desired finished result. Once the wood has sprung back, though it shouldn't unwind any further. The wood should remain clamped for not less than a week, or it'll spring back much further. If you're doing the back sections of the chair, you can take them out of the clamp block halfway through the week and cut them to shape. Make sure they go back into the clamping block in the right order.



If you are forming the spindle set for the back of the chair, make sure that you glue them into position as soon as you remove them from the former, so that they restrain each other from bending back out of shape. Anne recommends Cascamite Resin Wood Glue, which I found on Amazon in various sized tubs.

Now the other bit which had been intriguing many of us, the drilling of the various part of the chair. Since the chair doesn't consist of any right angles, the back legs being closer together than the front and the back legs and backrest rails being bent, it is very important to get the various drilling angles and positions right.



The drilling is done on a pillar drill, using a series of Vee blocks, with the workpiece clamped securely in place. Before doing the drilling, check and re-check that you are drilling the holes in the right place, as you've invested a lot of time and effort in getting the wood into shape and you wouldn't want to get it wrong, especially with ladies and small children present.

Now, how do you make sure that you are getting the angles right? For instance, the angle between the back legs and the front ones are 11° , so you need to be able to measure accurately 11° .



Anne has a nice cunning gadget for doing just this. It's a Starrett angle meter, made in the good ole U.S. of A, where they call them Inclometers. Well they like big words there, and steaks, and exhaust emissions.

Anyway you can get them for £24 from the Starrett website,

<http://www.starrett.co.uk/shop/handtools/anglemeter/>

This makes measuring the angles really easy, but again, double and triple checking before you drill that you have the angle going the right way is a must.

Make sure that you don't drill too deep either, as it's important that the dowels bottom out in the drilled holes, or they will wobble. Anne uses a mortising tool in the pillar drill for maintaining the accuracy of the mortises. She also uses a range of different mortises so to aid putting the right piece of wood in the right place.

Before gluing the chair together Anne recommends doing all the finishing. She uses 2 coats of clear French polish, then Briwax and finally Cherrydale fine furniture polish. I couldn't find any reference to Cherrydale polish on the internet, so I may have either miss-heard or miss-spelt it. However you spell it, don't get



any of the finishes on the surfaces to be glued, or it will adversely affect the gluing. Mask off these surfaces with masking tape before applying the finish.

Do a trial assembly without glue first, so you can make and necessary adjustments. Don't keep assembling it and taking apart though, or the joints will get

slack. Assemble then and glue the front section of the chair and glue it assembled onto the back section. Clamp it all together while the glue goes off, which takes about 24 hours.

Once the chair is all assembled and glued, the rush seat can be put threaded. The best rush comes from Holland, as it tends to be stronger than the British rushes. Soak the rushes in water for 15 minutes, then keep them in a towel to keep them damp. As you use them wipe them in a tea towel to dry them slightly and clean off any debris.

Use 2 rushes at a time and twist them together while turning round at each end. Anne did a crafty not to tie the ends of the rushes together. She demonstrated it several times and it wasn't something I could describe or make notes about. There are videos of rush seating techniques on Youtube, so those interested to have a go should have a look there.

All in all, a fascinating evening. Thanks to Anne for providing us with an out-of-the-ordinary event.

Woodturner of the Month

Jack de Vos was born in Holland and moved to just South Perth, Western Australia when he was 10. Woodturning is a passion with him and he is constantly developing new techniques, designs and ideas, which he readily shares through his popular demonstrations, teaching sessions and seminars both locally and overseas.

He is respected for his hollow forms and artistic turning, and supplies them to galleries, local, interstate and overseas.

He is well known for his fine turned vessels as well as his sculptural woodturning. He prefers to use local wood such as Jarrah, Sheoak and Grasstree.

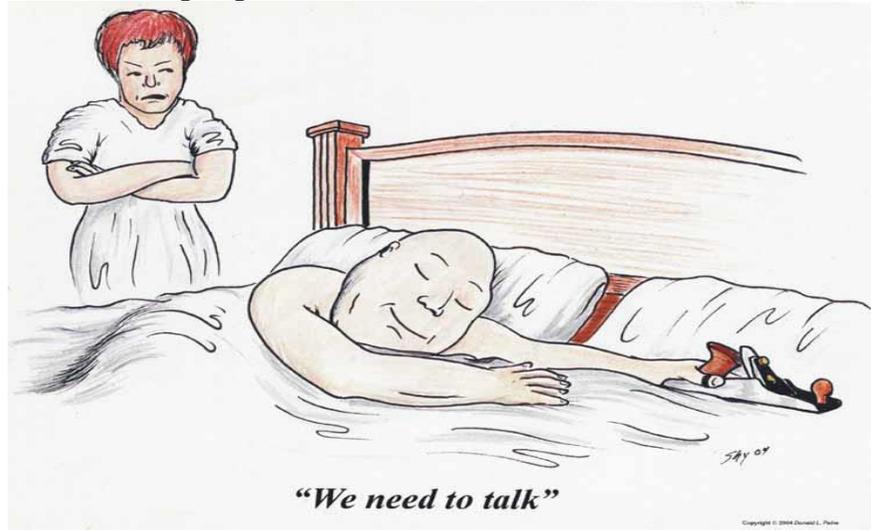


Christmas do in January

The Christmas do will take place on Saturday 8th January. By way of a change this year we'll be holding it in a pub. I know, it's a good idea isn't it? At the December meeting there will be a couple of possibilities on display for a venue and menu, so we'll decide at the time which is favourite and make the appropriate bookings in December.

AGM

It might seem a bit early to be thinking about the next AGM in March, but as with last year there is the issue of appointment of committee members to think about. This coming year there are a few vacant posts to be filled. All the posts are open to renewal, specifically this year the vice-chairman's role, treasurer, membership secretary and Woodies World editor are up for replacement. The other roles are subject to approval in the usual way. It would be good to have some new faces on the committee. None of the jobs are particularly onerous, so why not have a go? We don't want to have another wasted evening next year in a panic about who's going to be on the committee!



Woody's Wudoku

Fill the grid with numbers 1-9 so that each column, each row, and each of the nine 3x3 sub-grids contain all of the digits from 1 to 9.

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

