Celtic Knots by John Wyatt

The patterns produced by this technique are fascinating and far easier to produce than you might think. You will need, apart from your lathe, a well set up band saw and a chop saw or table saw with a good blade. Additionally you will need to sand off saw marks both flat and fair; for this you will need a sanding board, a piece of MDF with sand paper glued to it. Also some clamps to hold it all together while the glue goes off.

For this project (not as photo above) John used a piece of Sapele appx. 2"x 2" (50mm x 50mm) and 8" (200mm) long. The veneer was cut from 2" wide maple but any close grained and contrasting wood will work. The veneers need to be cut such that they are the same width as the saw cut thickness made in the spindle blank after roughness has been removed on the sanding board.

Tip

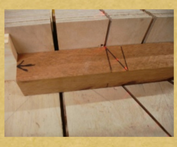
If the veneer and saw cut width differ the final pattern will not align.

The remainder of this description will assume that you are using a chop saw to make the saw cuts.

The blank has to be cut across the grain at an angle to suit your pattern. This can be done using the facilities built into the saw or by constructing a "sledge" to run across the saw bed. Either way the cuts must be consistent and repeatable.

Measuring the saw blade and veneer. Remember that you need to measure the width between the tips of the saw teeth.

Marking the Blank



Firstly you will need to decide the overall width of your Celtic Knot pattern. Now square a line across the blank to mark each end of your pattern, then draw a diagonal between the two.

Tip

Notice the piece of scrap clamped into position and used as a stop. This ensures that as your cuts progress they will always be in the correct place.

Now draw diagonals across each end to find the centre of your blank and mark one end to be the "stop end." Now, looking at the stop end, number the faces of the 1 to 4 working in a clockwise direction.

Cutting the veneer

Set your bandsaw fence to the desired thickness, allowing for cleanup of the faces using a plane and / or sanding board. Then cut the finished veneer into suitably sized pieces, slightly larger than needed.

Making your Cuts

Set your chop saw to the angle you have determined for your cuts. With the "stop end" of you blank against the stop on chop saw base board and face number 1 at the top, cut through at the set angle.

Consider using suitable clamps to hold the blank, keeping hands and fingers away from the cutting blade.

Tip

Start your initial cut and stop half way through. Check to make sure that your veneer is a good fit in the saw cut.

Fair off the cut ends using the sanding board, as shown above. Re-assemble placing a piece of previously cut and faired veneer that has a thin layer of adhesive applied, between the pieces. Too much glue may cause sliding during clamping up.The adhesive used in this instance was Titebond II.

Tip

Make up a clamping board to support your blank during the clamping process. Note the notch cut into the backboard, it is to allow waste veneer to protrude slightly.

To clamp these pieces and keep them straight while the glue sets use the clamping arrangement shown. Taking care that the angle slopes towards the backboard to prevent the glued surfaces sliding. Remember to align the waste veneer with the groove in the backboard. Note, place the clamp holding the blank to the backboard is as close as reasonably possible to the join. Also, do not over tighten the end to end clamp.

Tip

Place greaseproof paper between the blank and clamping board to prevent the two sticking together.

Follow the instructions for cut No 1 for faces 2, 3 and 4 in ***numerical order*** to complete the assembly process.

Congratulations you have now made a blank for a Celtic Knot, take a bow and enjoy the applause - well alright then, make a cup of tea and feel pleased with your self.

End view of blank shown after the third cut and before fitting the last veneer.

The completed blank after all four cuts and joints completed and faces cleaned up with a sharp plane / sandpaper

Turning your Celtic Knot

It is important that you mark the dead centres at each end of your blank prior to mounting between centres on your lathe.

Take extra care when turning and take gentle cuts with a sharp gouge; the veneers that you have carefully inserted into your piece each have two end grain faces. Also, after the last joint has been glued and clamped, leave your blank overnight for the glue to fully harden.

All that is now left to do is to decide upon your project, what it will be, and the shape that will best exploit your Celtic knot pattern.

Always work within your skill and comfort range, especially when using power tools.

Project by John Wyatt

Article and photographs by Dave Hutchings