

CARVING BY NUMBERS

Mike Davies

www.CarvingbyNumbers.com



Woodcarving by Numbers is a simple to follow programme that guides woodworkers of all skill levels to become competent woodcarvers. Available with a selection of tool sets, simply match your carving tools to the numbered profile chart, and follow the step-by-step guidance through a wide selection of projects. As a bonus with each tool set, you will have access to a comprehensive treasure trove of technique tutorials, project, and guidance videos. Watch and learn the Significant Six carving techniques and practice them on a selection of projects, graded in difficulty, designed to put your skills to the test. The ultimate goal is to create designs of your own to add a unique point of difference to your woodworking projects.

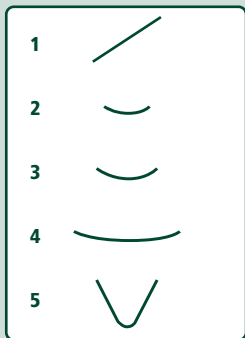
Please refer to the **Significant Six techniques tutorial** or watch the **Foundation Skills DVD** at www.carvingbynumbers.com for safety and guidance with your techniques.

Flat Carving

This project makes use of tool numbers 1, 2, 3, 4 and 5.

Sweep Profile Reference Chart

Essential Collection:



Pattern Carving Set:



Spoon Carving Set:



Comprehensive Collection:

Bonus Gouge



Flat Carving

This particular style of carving, known as 'flat carving' is commonly found decorating furniture from the Jacobean period (1603-1688). The designs are varied and although sometimes of a simplistic appearance, can be used for many applications.

The style of carving suits both traditional and contemporary designs, and results can be achieved quickly. Importantly, this project will help to drum in the 'significant six' techniques, as featured in a separate tutorial and 'Foundation Skills DVD'. This design could be used to decorate rails of furniture, as a design to decorate a panel, or lid for a box. The objective of this style is to reduce the background of the timber to leave the surface completely flat and expose the design.

The final appearance of the carving is enhanced if the surface remains clean, with crisp edges to the design. Aim for the perimeter cuts of the design to be 'set in' at 90 degrees to the timber's surface.

Try to avoid rounding over the surface edges of the design, which will be helped if you avoid an inside bevel on the tools. Make sure your lines flow without awkward 'elbows', and remove all fragments of timber from the decoration as you go.



Photo 1.

Step 1. The Drawing

Enlarge the diagram in Figure 1 so that each square of the grid measures 20mm. Achieve this by scanning in the image and enlarging the design using a computer.

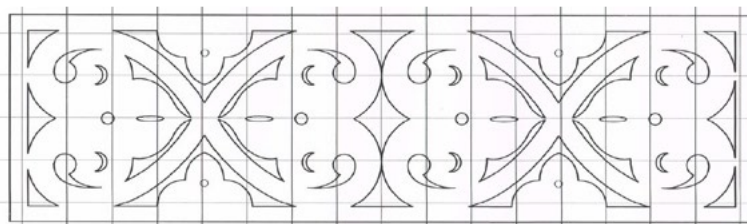


Figure 1.

Alternatively enlarge the drawing with a photocopier or simply employ the old fashioned method of putting pencil to paper.

A handy tip is to draw the design onto stiff card, or trace it on using carbon paper. Then, cut strategically-located sections from the card to create a stencil, Photo 2.



Photo 2.

A stencil is useful for marking repetitive designs onto your timber. Alternatively, carbon paper beneath the scale drawing is ideal to trace the design onto the timbers surface.

Remember that the resulting carving will only be as good as your drawing. If your drawing is an inaccurate sketch, your carving will be the same.

It is, therefore, worth taking time to get your drawing as accurate as possible.

You may find it helpful to shade the material you intend to remove. This will prevent you from removing the wrong parts of the design.

2. Timber preparation

A common timber for this early style of carving was oak, but whichever species you choose, ensure that it is planed flat and sanded smooth before marking the design onto the surface.

3. First cuts

Now you can begin to 'set in' vertical cuts which follow the perimeter lines of the design. Each cut should be at 90° to the timber's surface.

Try to make your first cut on the waste side of the design. You can follow with precise cuts on the line later.

Use the various profiles from your Foundation Skills tools to 'set in' the design. Hold each tool in the 'Pinch position'. Make sure you 'Anchor', and 'set in' the cut with a gentle tap from your mallet. If the profiles of your tool selection do not fit precisely you can adapt by making several cuts to follow the outline.

When using the inside of the blade to form the shape, note how the tool is held vertically to the timber in Photo 3.



Photo 3.

When using the outside of the blade to set in a cut, the tool is angled so that the bevel angle is 90 degrees to the timber's surface, Photo 4.



Photo 4.

4. Exposing the Design

When the entire outline has been 'set in,' we can begin to bring the design to life by removing the waste material from the pattern.

Use the various tools from your tool kit to cut towards the 'set in' cuts at a 45 degree angle or less. If you need a firmer grip on the tool try the 'Fist position' and remember to 'slide' the tool as you cut towards the set in cut. Be sure to carve on the correct side of your line, in the shaded area of your design.



Photo 5.

Try to carve at a consistent angle towards the 'set in' cuts throughout the entire pattern to create uniformity. In the areas where your angled cuts meet back to back a ridge line will form which will sometimes be below the surface.

To remove the timber in the scroll shape area, first carve towards the tip of the leaf with tool #2 forming a scoop, and then work around the rest of the area with tool #1. Photo 6.



Photo 6.

After completing the outer edges of the design, proceed with the internal details. With tool #2 set in the four circles ensuring that the cut is vertical to the timber's surface. Then, at an angle of 45 degrees or less, create a uniform dish shape around the outside of the circle. Photo 7



Photo 7.

Concentrate on the 'crescent shaped' decoration located on the side leaves of each fleur-de-lis.

Using tool #3 set in a 90 degree cut following the same lines as the scroll shapes. Then make a second cut at an angle towards the 'set in' cut to remove a clean segment.

For the eyelet shape on each of the central leaves, make two angled incisions with tool #4 so as to form a valley with a straight line in the centre. Use the tips of the blade in a slicing action to create a clean central cut in the valley. This is a good example of why it is important to keep the 'tips' of the cutting edge intact.



Photo 8.

See Sharpening and Maintenance Tutorial or watch the Foundation Skills DVD at www.carvingbynumbers.com

Now form the small holes in the centre of the boarder motif. A drill bit can often pull fibres from the timbers surface. Instead, you can make a simple tool that will give you a smooth 'burnished' hole. Select a nail with the desired diameter and round over the point using a grinder. Cut off the head and put the nail into

a drill chuck or hand drill. At a low speed use various grades of abrasive paper to create a polished dome.

The polished dome can be used in the same way as a drill bit to form a shallow hole. The finished result will be smooth, clean, and polished.

Finally, wrap a fine grade abrasive paper around a sanding block, and give the work a light sanding to clean the work ready for polishing.

Using the same techniques, have a go at some of these alternative designs, Figure 3 & 4.

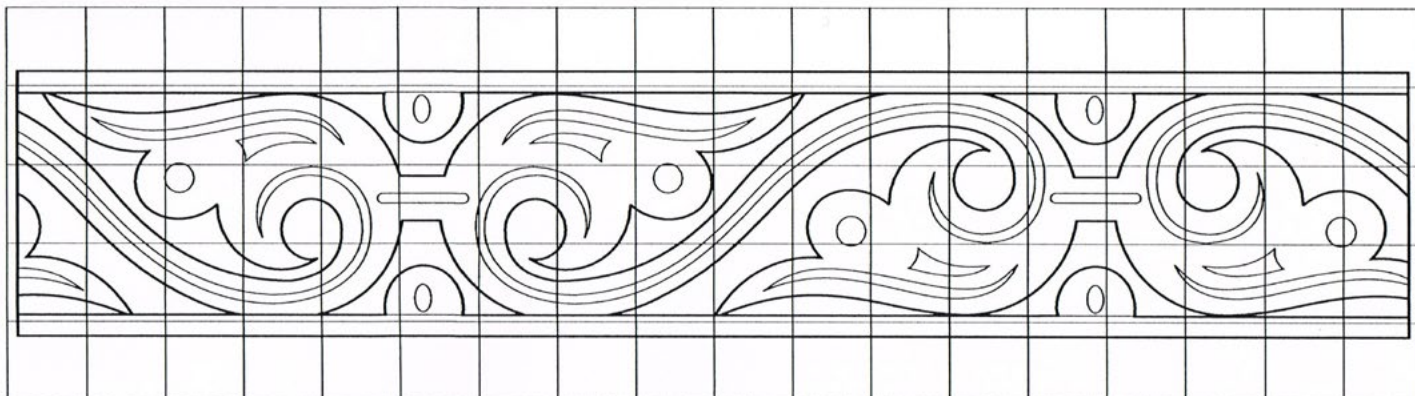


Figure 3.

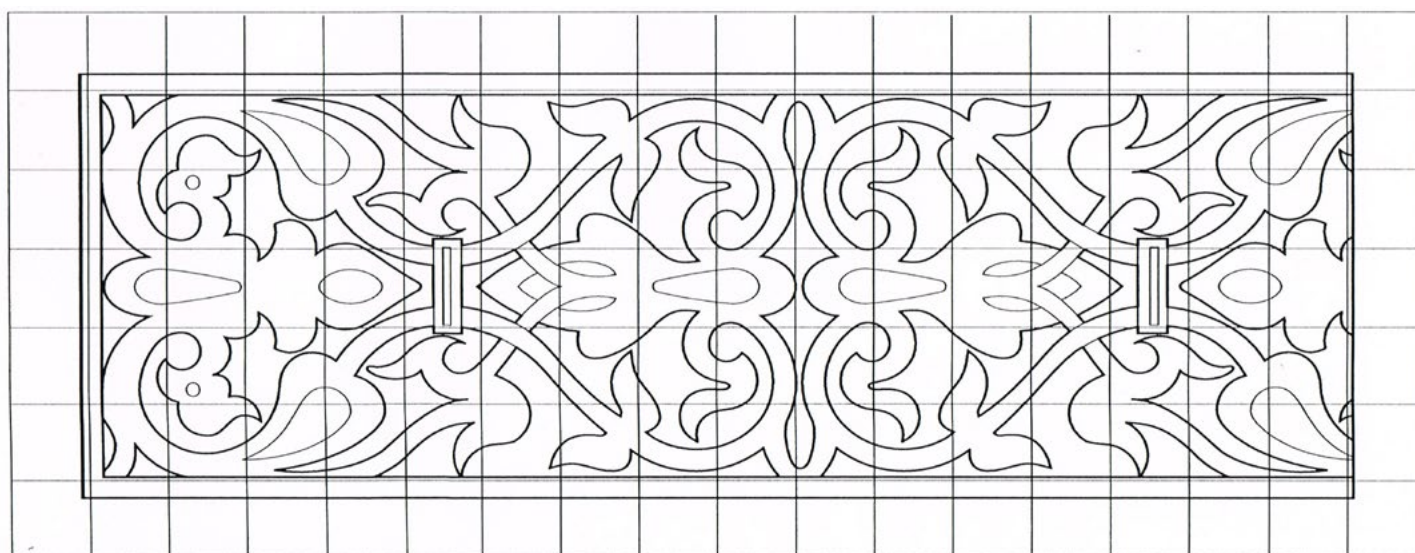


Figure 4.

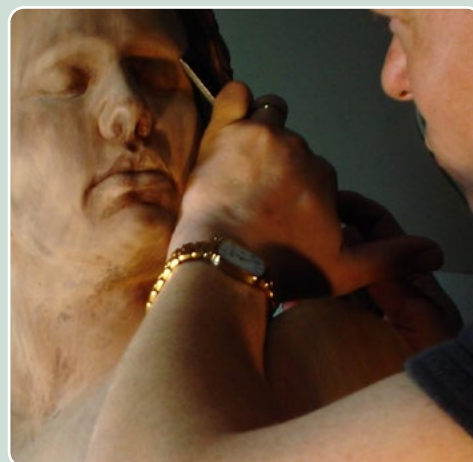
About the Author:

Mike Davies is an accomplished craftsman, who has completed projects for royalty, national trusts and private collectors alike. He has surveyed and restored works by many of the great designers and carvers from the past.

As a qualified teacher, he originally developed his 'Woodcarving by Numbers' educational system in 1994. It was created to help woodworkers of all skill levels to master the art of woodcarving.

Since then, his system has been published in magazines and books. It has been televised and used to teach students in schools and colleges around the world.

The information contained within this document, forms part of an educational package, which has been developed in cooperation with many of the world's leading carving tool manufacturers.



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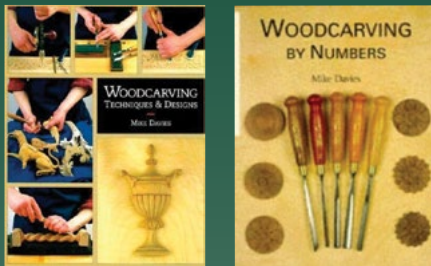
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Lettering



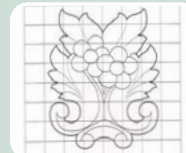
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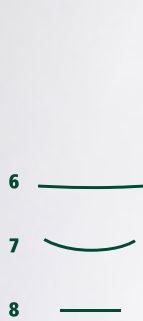
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Learn how to carve beautiful patterns and designs, with the Carving by Numbers step-by-step project cards and this range of compatible carving tools, manufactured by Record Power.

Essential Collection:



Pattern Carving Set:



Spoon Carving Set:



Comprehensive Collection:

- ✦ Essential Collection
- ✦ Pattern Carving Set
- ✦ Spoon Carving Set
- ✦ Bonus Gouge
- ✦ Canvas Tool Roll



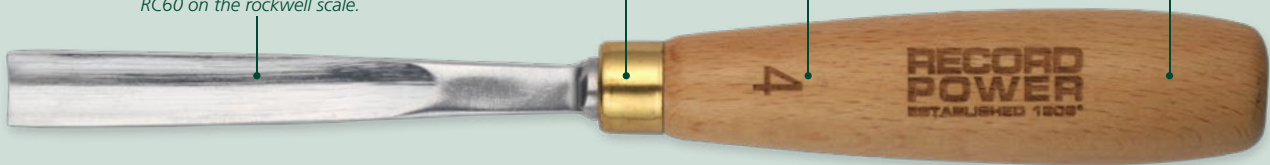
Premium Wood Carving Tools:

Chromium-vanadium alloy steel offers enhanced durability and edge retention over standard carbon steel. Hardened to around RC60 on the rockwell scale.

Brass ferrule

Numbered reference for educational system

Hardwood beech handle



Record Power has a long and impressive history. Established in Sheffield, the heart of the UK's steel industry, and stretching back over 100 years, we enjoy an enviable reputation for creating high quality tools through our many years of experience and unparalleled knowledge in manufacturing and design.

In addition to our UK-made products, we work with carefully selected partners from across the globe to ensure we supply only the best quality products possible. Record Power products are exported to more than 30 countries worldwide.