

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.

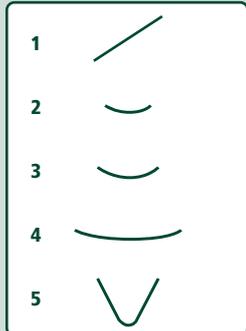
Please refer to the **Significant Six techniques tutorial** or watch the **Foundation Skills DVD** at www.carvingbynumbers.com for safety and guidance with your techniques.

Flowers and Leaves

This project makes use of tool numbers 1, 2, 3, 4, 5 and 6.
For instructions on how to complete using the Essential Collection only, please refer the Woodcarving by Numbers book at www.CarvingbyNumbers.com

Sweep Profile Reference Chart

Essential Collection:



Pattern Carving Set:



Spoon Carving Set:



Comprehensive Collection:

Bonus Gouge

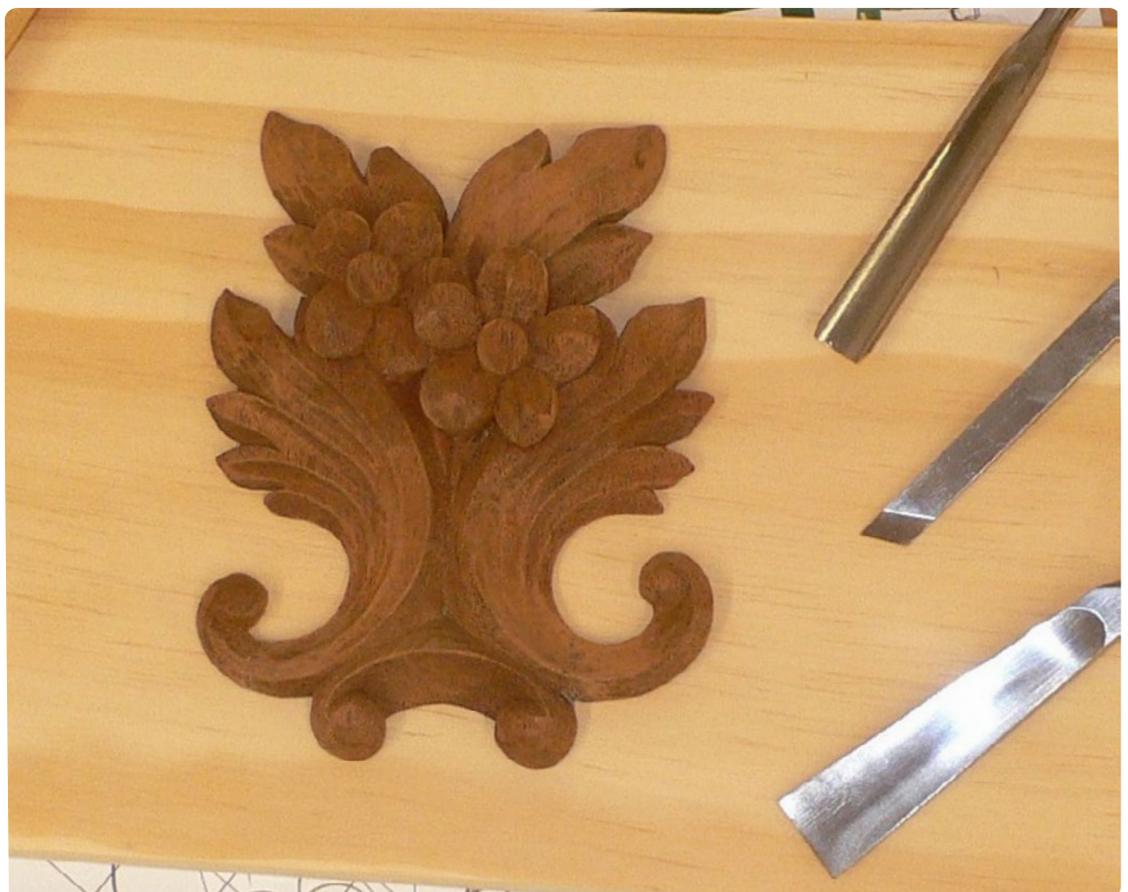


The carving project in this tutorial forms an introduction to the acanthus leaf, and will also encourage you to start thinking in three dimensions.

The acanthus leaf is one of the most widely used plant motifs in the decorative arts. Take a look at the 'Acanthus Panel Project' for a detailed study of how to draw and carve the Acanthus decoration.

Inspired by a Victorian design, this project is not elaborate in detail, but provides scope for shaping in various ways. On completion it can be applied to a panel, or similar embellishment.

I have used mahogany for this project, although any good carving material could be used. It is important that the profile of the leaf formation is the same on either side to provide balance, however, the shaping does not need to be exactly symmetrical.



Picture 1.

1. Enlarge the drawing in **figure 1** to scale, by making sure that each grid of the square measures 20mm.

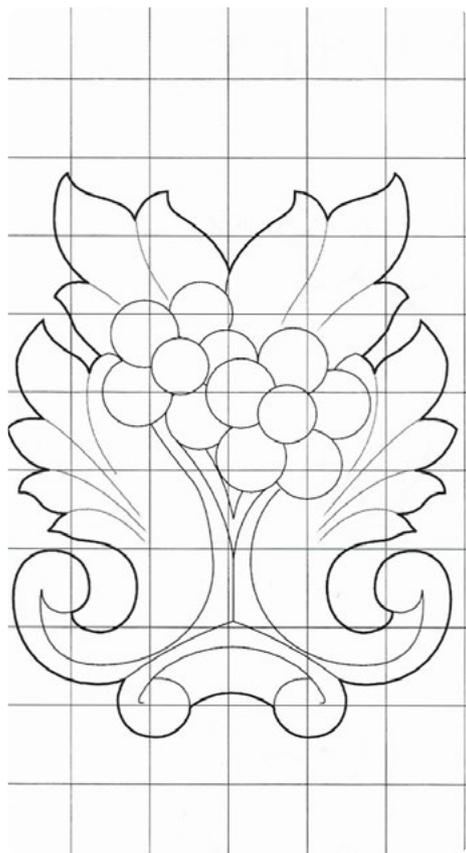


Figure 1.

2. Your timber should now be prepared, with dimensions of 155mm long, 120mm wide and a minimum of 30mm thick. **Picture 2.** Ensure that one face of the timber is planed perfectly flat, as this will be required for the rear of the carving.



Picture 2.

3. Next, mark the design onto the timber with the grain running from top to bottom. This can be done using carbon paper, or by making a cardboard template. It is important to be as accurate as possible with the drawing. **Picture 3.**



Picture 3.



Picture 4.

4. Use a scroll saw to cut the shape, taking care to cut on the waste side of the line. Once again, work as accurately as possible. **Picture 4.**

5. The blank must now be secured firmly to your work surface before you can begin to carve. You could simply secure the work by using 2 screws from the rear of a backboard. Make sure that the backboard is big enough so that you can then fix the board to your work surface. If you choose this approach then it is essential to carefully position the screws in a part of the carving that will remain high. There is nothing worse than finding a screw with your razor sharp carving tools. Another problem with fixing the work with screws, is that support is not provided for the entire carving. If your design requires fine areas that are carved thin and close to the backboard, they can be easily broken during carving.

The preferred method, it to glue the work to a backboard. First you must ensure that the back of the carving blank is perfectly flat and clean. Next, lightly score a chequered pattern onto the back using your skew chisel number 1 or a marking knife. Then rub a candle over the surface to apply a thin coating of wax. Glue can



Picture 5.

then be applied and the carving blank clamped to the board until the glue is dry. You can use any sort of glue, PVA works fine. **Picture 5.**

All elements of the carving blank should now be held firmly in place to allow you to carve. On completion, it can be raised using a thin pallet knife. Gently work the blade of a thin pallet knife underneath the carving, concentrating on freeing the outer edges first before moving to the centre. After a little persuasion, the carving should lift quite easily, leaving a clean surface to use as a base. Some carvers opt for paper instead of wax, although this may result in a weaker joint and the back of the carving requires more cleaning up. If you do use paper, apply glue to both sides before placing it between the carving blank and the board.

6. Position the carving on your bench so that the grain is pointing away from you. Select tool profile number 3 and hold the tool in the pinch position. Set in the profile of the two flowers in the middle of the carving, making sure that the cuts are at 90 degrees to the timbers surface. **Picture 6.** Then, try the 'tapping technique' with tool number 4 to remove the surrounding timber from the flowers. Continue to set the profile of the flowers in more deeply as you progress, until the timber around the flowers is reduced to a thickness of around 15 mm. Try to achieve a clean, flat surface around the flowers using tool number 1 or 6.



Picture 6.



Picture 7.

7. Draw the markings onto your carving using a pencil as shown in **Picture 7**, dividing the design down the middle, and adding curved lines to the left and right. These curves will later become high ridges when carved.



Picture 8.

8. With chisel number 5, carefully carve between the curved lines below the flowers to form a valley. You can see in **Picture 8** how tool number 6 is being used to create a clean and straight line at the bottom of the valley. You can see the finished result clearly in **Picture 9**. Note how an inverted pyramid shape has been created where the bottom scroll meets the leaves.

9. In **Picture 9**, you can see how one flower has been defined from the other by setting in the entire profile of one flower and angling the



Picture 9.

other towards it.

10. You can now start to 'rough in' the shape of the leaves, using various profiles from your tool kit. **Picture 10**. Create a concave shape on the two larger leaves leading down towards the scroll. Try to keep the edges of the leaves high, where they meet each other in the center of the design. Think about each cut that you make and visualize how you want the leaf to lie. It may be useful to collect leaves from the garden for reference and experiment with the shape to ensure that it looks realistic. I would recommend that you create a pattern first in clay or plasticine so that you can be certain of the shape that you want. You can use your carving tools to cut away the clay or plasticine. In **Picture 10** You can also see that the flowers have now begun to take their rough shape.



Picture 10.

11. Next form the scrolls by setting in each shape with tool number 3, and removing the excess timber from around the cuts with tool numbers 3 or 4. **Picture 11**.



Picture 11.

12. In **Picture 12**, you can see how the overall shape has now been formed or 'roughed in'. When you have the shape figured out for the leaves and flowers, then round over each scroll with tool number 3. Hold the tool in the 'fist position' and practice the 'sliding technique' to create clean shapes for the head of each scroll. Remember to always finish each cut by ensuring that you have removed all of the waste material. Your work can soon begin to look very untidy if you leave splinters of timber attached.



Picture 12.

13. In **Picture 12**, note how a series of lines have been created, flowing together without any awkward 'elbows'. You may often here the term 'clean or flowing lines', which indicates that the lines of the carving flow well together. These lines will be carved to form high ridge lines, so take time to make sure that the lines flow gently towards the centre line of the leaf and ultimately towards the scrolls.

14. In **Picture 12**, you can also see how the petals of the flower have been marked in pencil and then 'set in' using tool ref number 3. You can begin to take small slices towards the 'set in' lines of the petal, to help define each component, carving each as if it is slightly overlapping the next.

15. Take a look at **Picture 13**, to see how tools 2 & 3 have been used to carve in between the pencil lines on the acanthus leaves to form a series of concave valleys. The pencil lines have become ridge lines. Take time to ensure that the ridge lines flow in the same way as the pencil lines. The sliding technique will be particularly useful as you will inevitably encounter awkward grain. Note also how each flower petal has been developed. Once you formed the first series of valleys and ridge lines on the acanthus leaves, you can pencil in a second set of lines



Picture 13.

16. Carve between the second series of lines with tool number 2 and 5. This process will create another set of flowing ridge lines to give additional depth, interest and a sense of movement to the leaves. The finished result can be seen in **Picture 14**.

17. In **Picture 14**. You can see how tool number 1, has been used to divide the valley just below the flowers and in between the leaves once again. The idea is to form small triangular shaped sections, that create the impression of stems being attached to the flowers.

18. When you are happy with the final finish of your work, you can use a fine bladed pallet knife to gently separate the work from the board. Take care to release the edges of the work around the entire perimeter, before you move into the centre. **Picture 14**.



Picture 14.



Picture 15.

19. To give the work a delicate appearance, you can now begin to refine the back of the carving. Turn the work over and place the carving on a soft item such as a work cushion or cloth. Using the various tools from your kit, remove the timber from the underside of the leaves at a slight angle, so that when you look at the carving straight on the thickness is hidden. Be extremely careful to ensure that your fingers are well out of the way, always carve away from your fingers and body and only try to remove small slices with each cut to ensure that the blade is being used with controlled pressure.

Picture 15.

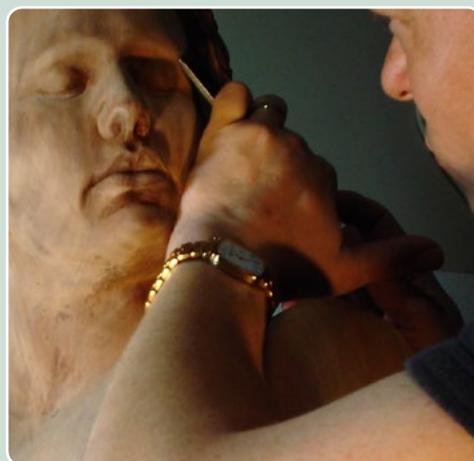
About the Author:

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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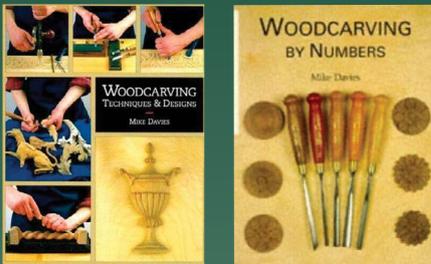
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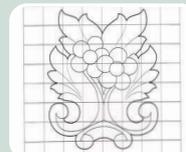
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Mike Davies

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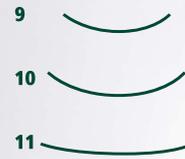
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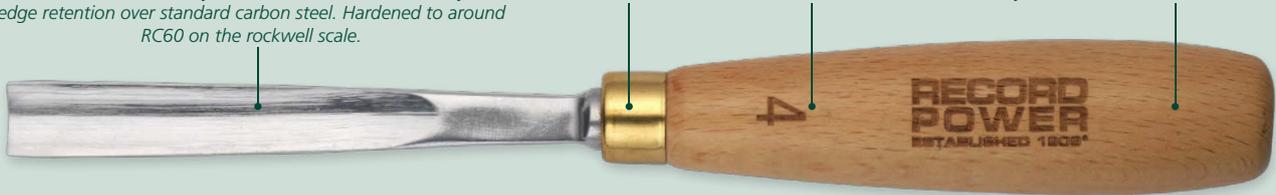
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