

# CARVING BY NUMBERS

Mike Davies

[www.CarvingbyNumbers.com](http://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](http://www.carvingbynumbers.com) for safety and guidance with your techniques.

## Carving the Lunette

This project requires tool numbers 1, 2, 3, 4, 5, 6, 7 & 9.

### Sweep Profile Reference Chart

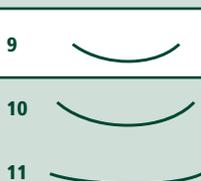
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**Picture 1.**

In this tutorial, we will be looking at the 'Lunette'. A widely used decoration, with a name that is derived from the French word 'Lune' meaning Moon.

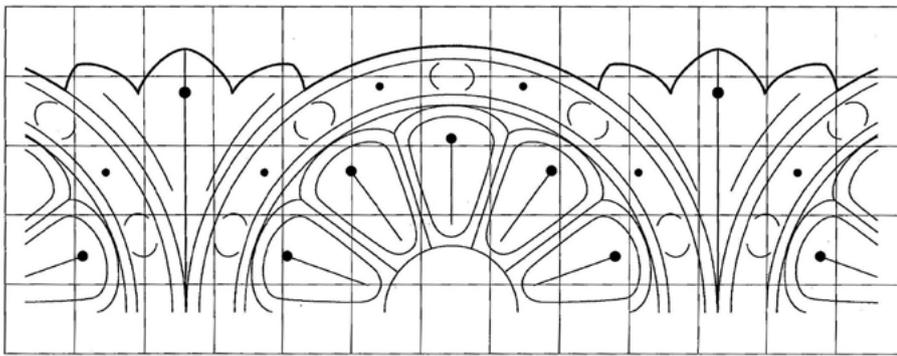
Lunette is the diminutive form meanings half-moon, and its shape has been used as a feature in architecture and furnishing throughout the centuries.

On furniture, the ornament in its earliest form was usually carved, and consisted of a series of half-moon shapes, sometimes interlaced and filled with decorative designs. Examples of these motifs can be found widely,

particularly on oak furniture of the 16th and first half of the 17th centuries.

Lunettes later became a popular decoration of the 18th century, inlaid or painted, on the more elegant furnishings of the Georgian period.

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



**Figure 2.**

## Creating a scale drawing

**Fig 1 & 2.** It is recommended that your carvings are created to the exact same dimensions as mine, in order for the 'Carving by Numbers' system to work to its fullest potential. Each project is designed to fit the profiles of the designated carving tool set. Therefore, as each stage of the project is examined, the appropriate tool reference number is given. The objective is to simplify the project into a step-by-step process. When learning to carve, many of my students initially raise concerns about 'not being artistic', or 'finding difficulty with drawing'. In answer, I make a point of explaining that I too once felt devoid of any artistic ability. Drawing is a skill that with time, patience and practice can be developed. Forget the word 'artistic' where we believe this is an innate ability which some people possess and others do not.

The skill of drawing can be looked upon as a methodical series of stages. Each of the projects in this series requires a drawing to be reconstructed to scale. Admittedly, it would be easier to expand the picture provided on a photocopier. However, the process of redrawing the design by hand and eye is an important learning process which is as relevant as the carving itself. The reconstruction will require concentration and encourages you to study each area of the design in depth, this bringing to light important details and requirements that may be overlooked at a glance.

Form a grid of boxes, each measuring 2 cm squared. In **figure 2**, concentrate on each individual grid box at a time, rather than reproduce the entire design all in one go. Copy the contents of a smaller grid box into the larger, ensuring you reproduce the contents in exactly the same position.

As you draw the design, consider the way in which the high and low areas will be carved.

Before carving commences, ensure that your carving tools are razor sharp. The first task is to select and prepare your timber. As the design is most commonly associated with oak, I have decided to abide by tradition. However, there are easier woods to carve. If this is your first attempt at woodcarving, it may be advisable to practice on a piece of Pine or similar softwood.

In **picture 2** note how a stencil has been cut from stiff card. This can be used repeatedly, giving accurate and constant results. Alternatively, You can use carbon paper to transfer the drawing from paper onto your timber. Make sure the Lunettes are equally spaced and exactly the same.

**2.** Make sure that the work is secured to your work surface securely. A good high for your workbench is the same height as your elbow, when standing straight, which will avoid you needing to bend your back and lean over your work.

**3.** For the first cut, select tool #6 and study **Picture 3**. Note how the outer semi-circle has been defined. Begin by 'setting in' the outer perimeter of the large semi circles. Ensure that the blade of the tool is positioned so that the cut will be 90 degrees to the timbers surface. Hold the tool in the 'pinch position', and gently give the handle of the tool a tap with the mallet to set in the cut.

**4.** The next step is to define the semi-circle shape by removing the timber from its perimeter, making sure not to slip and carve away the perimeter line. Be particularly attentive to the area at the very top of the semi-circle where the design meets the border. You will notice a very shallow cut has been made within both parameter lines. Hold tool #6 in the 'fist position', make sure you 'anchor' the tool and gently 'slice' the cutting edge towards your set in cut to remove clean segments of timber.

**5.** Select carving tool #9 and study the smallest semi-circle in **picture 5**, forming the centre of the flower. Using arm-weight, or a mallet to provide a controlled downward force, hold the blade of the carving tool so that the outside bevel of the cutting edge is at a right angle (90 degrees) to the timber's surface. Note how the tool is positioned at an angle to achieve this cut. Set in vertical cuts around the perimeter of the smaller semi-circle. Don't worry if the shape of the blade does not match the shape of the semi-circle perfectly. Just make several cuts to perfect the semi-circle profile.

**6.** In **Picture 6** note how the centre of the flower has been rounded to the perimeter cuts. Use the edges of tool #6 to slice through the timber. Note how the cut is finished where it meets the boarder.



**Picture 2.**



**Picture 3.**



**Picture 4.**



**Picture 5.**

**7. Picture 7.** Let us concentrate on the decoration positioned between the Lunettes. The profile of the leaf design has been defined using the various profiles of carving tools #4, 6 & 7. Set in the marked lines with cuts that are vertical to the timbers surface.

**8.** Now see how the same tools have been used to slice down towards the profile cuts on the waste side to remove clean chips. You will see the completed effect in Pic 8. An angled slope has been formed. Falling from the straight line of the border to the profile of the leaves.

**9.** With carving tool #7, set in the petal shapes of the internal flower. This should be completed holding the blade of the carving tool at a right angle to the timber's surface, and gently tapping the handled with a mallet to provide a controlled downward force.

**10.** In **picture 10** see how carving tool #7 has been used to define these petals, forming an angled slope from the surrounding semi-circle's line.

**11. Picture 11.** The petals should now be defined from each other. The dividing line does not actually reach the centre of the flower. It starts at the outside edges of the petals at around 2 to 3 mm in width, and tapers to nothing just before it reaches the boarder in the centre. The logical choice of tool to complete this cut would be tool #5. However, this may cause problems when carving across the grain. The better choice being tool #1, which is used to carve down to the central lines from both sides.

**12.** In **picture 12** using tool #2 & 3, the petal centres have been scooped. Try to maintain the cuts stay within the confines of the market borders, creating a distinct ridge where the scoop meets the surface in place of the pencil lines.

**13.** Select carving tool #3. The inside of the semi-circle surrounding the flower has been carved to form a trough. Here it is also necessary to create a distinct clean ridgeline where the carving joins the surface. **Picture 13.**

**14.** In **picture 14**, study the outer leaf decoration. The two side leaves have been developed, forming two ridge lines. These converge to form a central ridge which runs down into the area where the two Lunettes meet. This is achieved using tool #4.

**15.** Look at the outside leaves in **picture 15**. The centre leaf has been scooped to define further the two ridge lines. Tool #4 is required once more and tool #3 will be of use as the area between the ridgelines narrows.

**16.** Before any further progression, it is necessary to mark onto your carving the finer details, as shown in **fig 2**. These are located around the inside of the semi-circles perimeter and inside each of the petals. **Picture 16.**



**Picture 6.**



**Picture 7.**



**Picture 8.**



**Picture 9.**



**Picture 10.**



**Picture 11.**



**Picture 12.**



**Picture 13.**

17. Using tool #2 set in with vertical cuts the crescent shaped decoration in the semi-circle. Then, with the same tool, take a scoop towards the cut line to remove a clean slice. See **pic 17**.

18. For the final stages of our Lunette project, let us now concentrating on **pic 19**. Notice the dots around the semi-circle, and inside each petal have been set into the surface. Our natural inclination is to use a drill bit, but a drill-bit as it can occasionally cause splintering of the timber surface around the holes. I would, therefore, suggest a round nail with a 2mm diameter for the holes in the semi-circle, and a 3mm diameter for the holes in the petals.

Round the point of the nail over with a file to form a smooth and polished dome. Using the nails in a drill chuck will produce a clean hole, with a domed bottom and a polished appearance. Each hole should be created with a depth of around 2mm.

19. In **pic 19**, the final stage has been to set-in a line down the centre of each petal. With tool #1 set in a straight line, using the angle sides of the cutting edge to form the V shaped required.

20. A light sanding may now be appropriate. Wrap a piece of fine grade abrasive paper around the sanding block and rub over the surface of the carving to remove any remaining pencil marks. It is always desirable to achieve a clean finish to your carving, although the Lunette designs of the past were usually quite crudely carved. Therefore, the odd chisel mark remaining may contribute to the overall effect.

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Picture 14.



Picture 15.



Picture 16.



Picture 17.



Picture 18.



Picture 19.

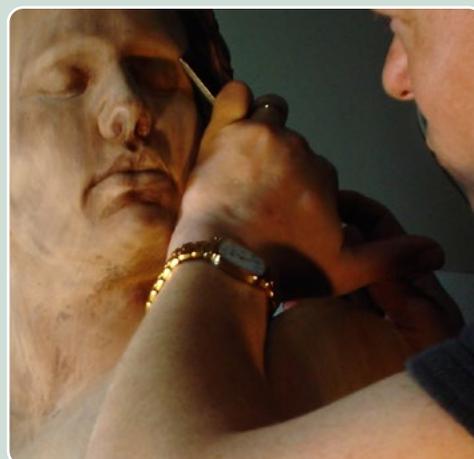
### About the Author:

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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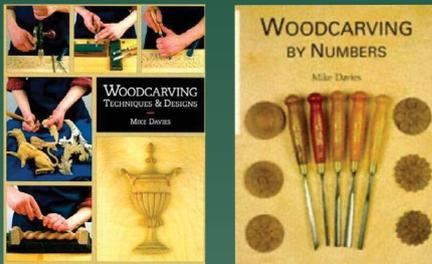
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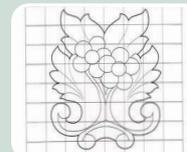
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*Mike Davies*

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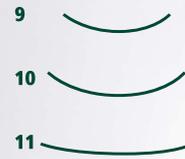
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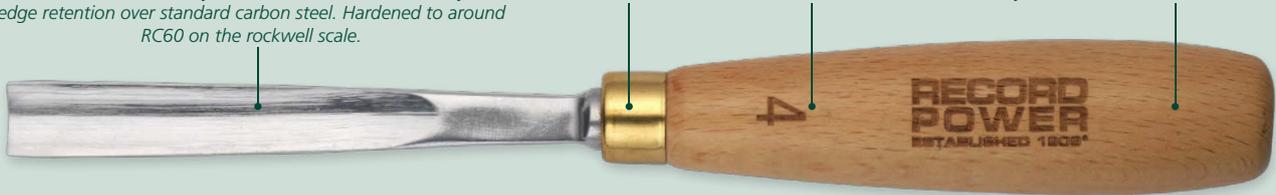
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