

THE THREE HARES
at Corfe Mullen
Dorset



Laurie SMITH
HISTORIC BUILDING GEOMETRY

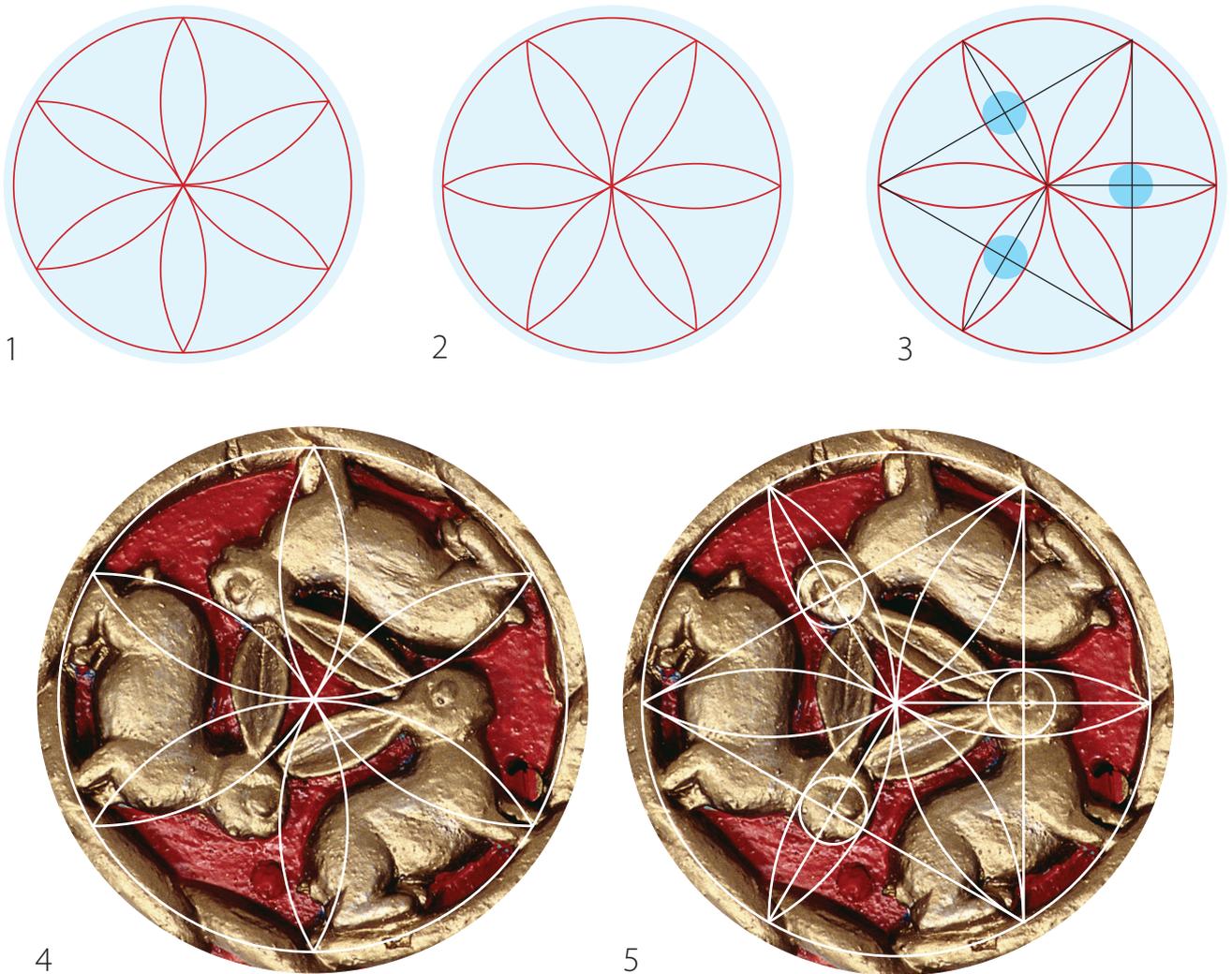


The Three Hares roof boss at Corfe Mullen, Dorset

The photograph of the carved Three Hares roof boss from Saint Hubert's Church at Corfe Mullen, Dorset was taken by **Chris Chapman** www.chrischapmanphotography.com

The drawings on the following pages, which show the geometrical basis of the design, are by **Laurie Smith** www.historicbuildinggeometry.uk

This article was first published as part of a chapter in
The Three Hares, a Curiosity Worth Regarding
by **Tom Greeves, Sue Andrew and Chris Chapman**
Published by Skerryvore Productions Ltd in April 2016
ISBN 978 - 0 - 9931039 - 2 - 6

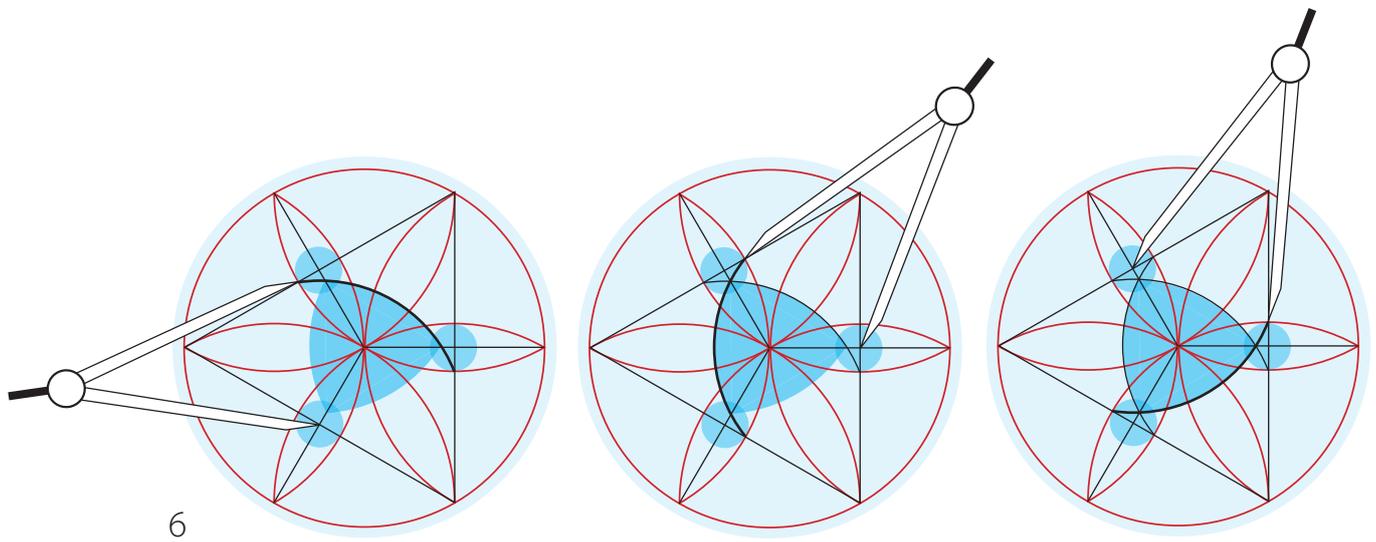


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The familiar six-petalled daisy wheel, drawing 1, is a symmetric compass drawn symbol that was used throughout the medieval period as a geometrical design tool. Because the circle's radius is used to draw the arcs within the circle, the six petal points on the circle's circumference and seventh point at the circle's axis are all exactly one radius apart and form the geometrical symmetry at the heart of the Three Hares design. Scribed into the timber surface by dividers, the geometry was a two dimensional guide to the carpenter cutting the three dimensional form of the boss.

The daisy wheel can be drawn with either a vertical axis, as in drawing 1, or with a horizontal axis, as in drawing 2. The Corfe Mullen boss uses both axes, vertical for the hares' feet and horizontal for their heads, each shown separately for clarity. Further interconnections within the daisy wheel are shown in drawing 3, where an equilateral triangle and radii bisecting alternate petals intersect to give the centres of three small circles with their diameters governed by the petal widths.

In drawing 4 the vertical axis daisy wheel geometry is superimposed over the photograph. The wheel is divided by its petals into six equal sectors of circumference and it can be seen that each of the hares occupies one of three alternate sectors, their front and rear legs joining the circle at the geometrical petal divisions. In drawing 5 the daisy wheel is drawn with the horizontal axis shown in drawing 2, and the internal constructions shown in drawing 3. It can be seen that the hares' heads occupy the circle locations and that their eyes are placed at the intersecting lines.



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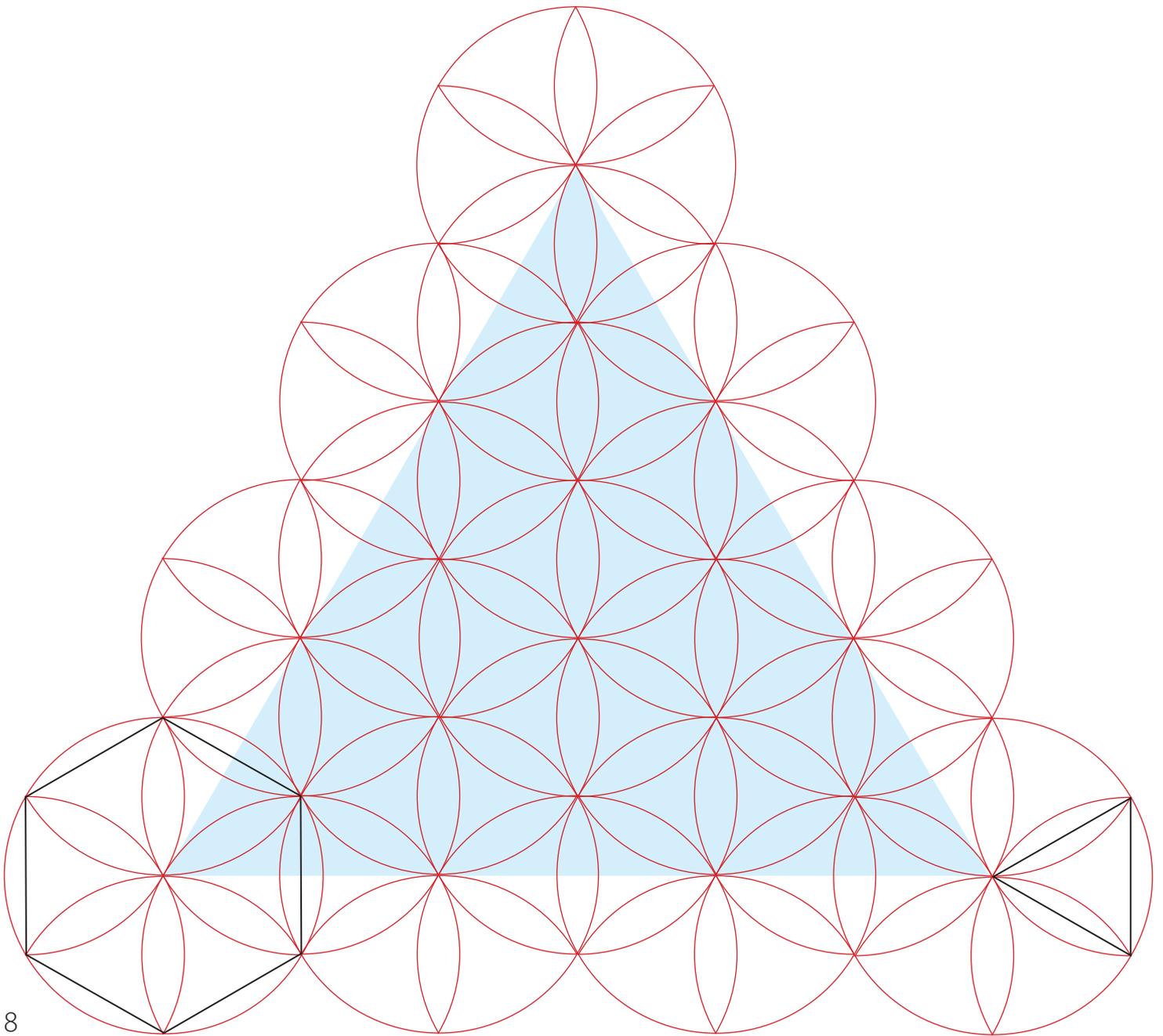
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Drawing 6 shows how lines that intersect at the centre of each hares' head location act as axes for three further arcs of circles. The three arcs are drawn so that the curvature of each passes through the two points where the equilateral triangle cuts across the boundary of the daisy wheel petals. The dividers in the drawings are placed at each axis in turn and the arcs drawn between two opposite petals. The arcs combine to form the small, curved equilateral shown in blue tone at the centres of drawing 6 which defines the outer boundary of the hares' ears in drawing 7. The equilateral configuration of the ears is clearly a visual reference to the Trinity.

The idea of three creatures forming a triangulated composition can also be found in Villard de Honnecourt's 13th century sketchbook* which includes a drawing of three fish with heads that overlap to form a single curved equilateral triangle, the gill, upper head and lower jaw of each fish forming the triangle. On the same page is a swastika of four masons, rotated at 90° to each other, who each hold a mallet aloft and chisel against the toes of their neighbour's foot, the cruciform axes of the drawing having resonance with the Cross. These images also have the property of meditational mandalas where successive stages of visual focus lead the eye from rotational external boundaries to a fixed central focus and the mind, in parallel, from the worldly to the eternal.

* See colour plate 41 in *The Portfolio of Villard De Honnecourt, A New Critical Edition and Color Facsimile* by Carl F Barnes, Jr. Published by Ashgate, <http://www.ashgate.com>



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The daisy wheel can be extended in all directions by drawing further circles of identical radius. In drawing 8 a continuum of ten daisy wheels generates countless triangulated groups of petals, commencing at the smallest with just three, like the hares' ears, and on ever increasing scales. The equilateral triangulation also generates hexagonal configurations on a range of scales. The daisy wheel grid is infinite and further circles can be drawn for ever. It is a combination of this eternal quality allied to the Trinity symbolism of the triangulation, both of which are appropriate to church sculptural adornment, that appears to underpin the Three Hares design. It was also a master stroke of imaginative brilliance to recognise the potential of the daisy wheel's triangulation as a group of three ears shared between three hares but the thing that is certain is that the thought could only have arisen from the use of compass geometry and drawing the daisy wheel. And this suggests that the idea and the image must post date the invention of the compass or dividers.

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