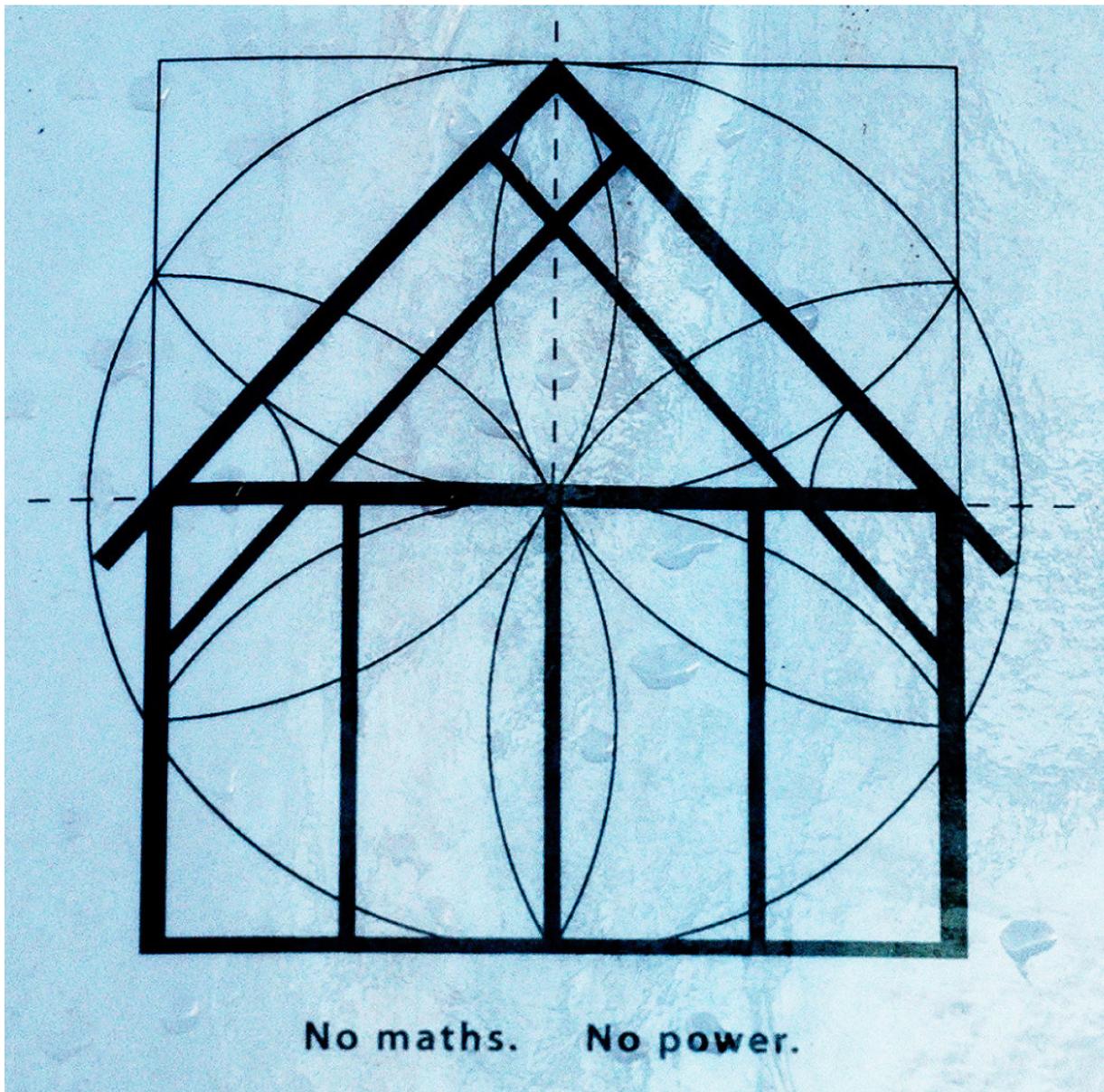


# The Gardener's Shelter at Cressing Temple -

## 9 Photographs



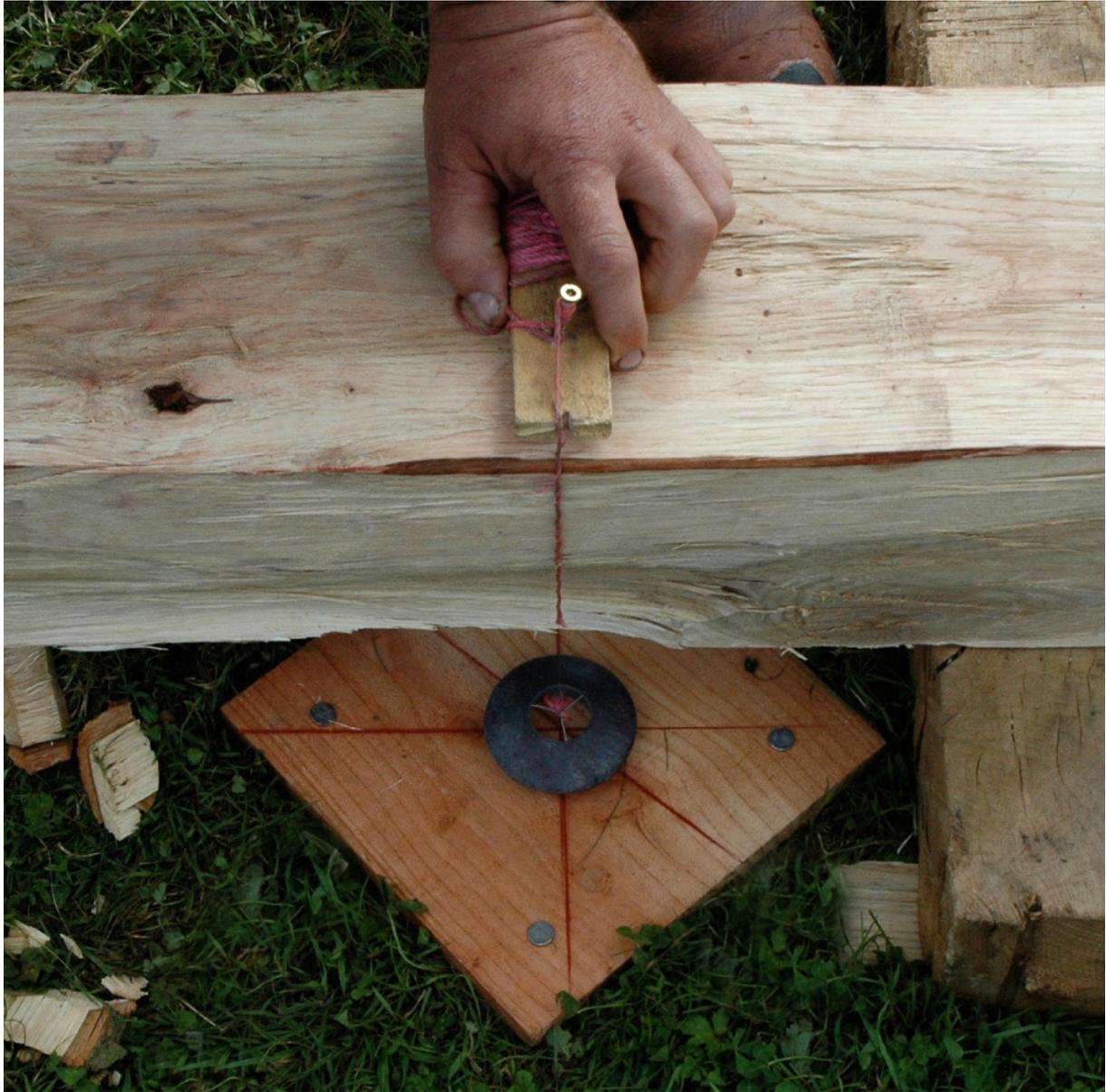
Laurie SMITH  
THE GEOMETRICAL DESIGN WORKS



1

The Gallery shows 9 photographs from a timber framing project at Cressing Temple –

The Gardener's Shelter was built at Cressing Temple in Essex in 2008. The project was run by the UK Carpenters' Fellowship and the timber (locally felled oak) was supplied by Essex County Council. The building's geometrical design was by Laurie Smith, the lead carpenter was Joel Hendry and the project manager William Clement Smith. The image shows part of a public notice explaining the Shelter's geometrical principles.



2

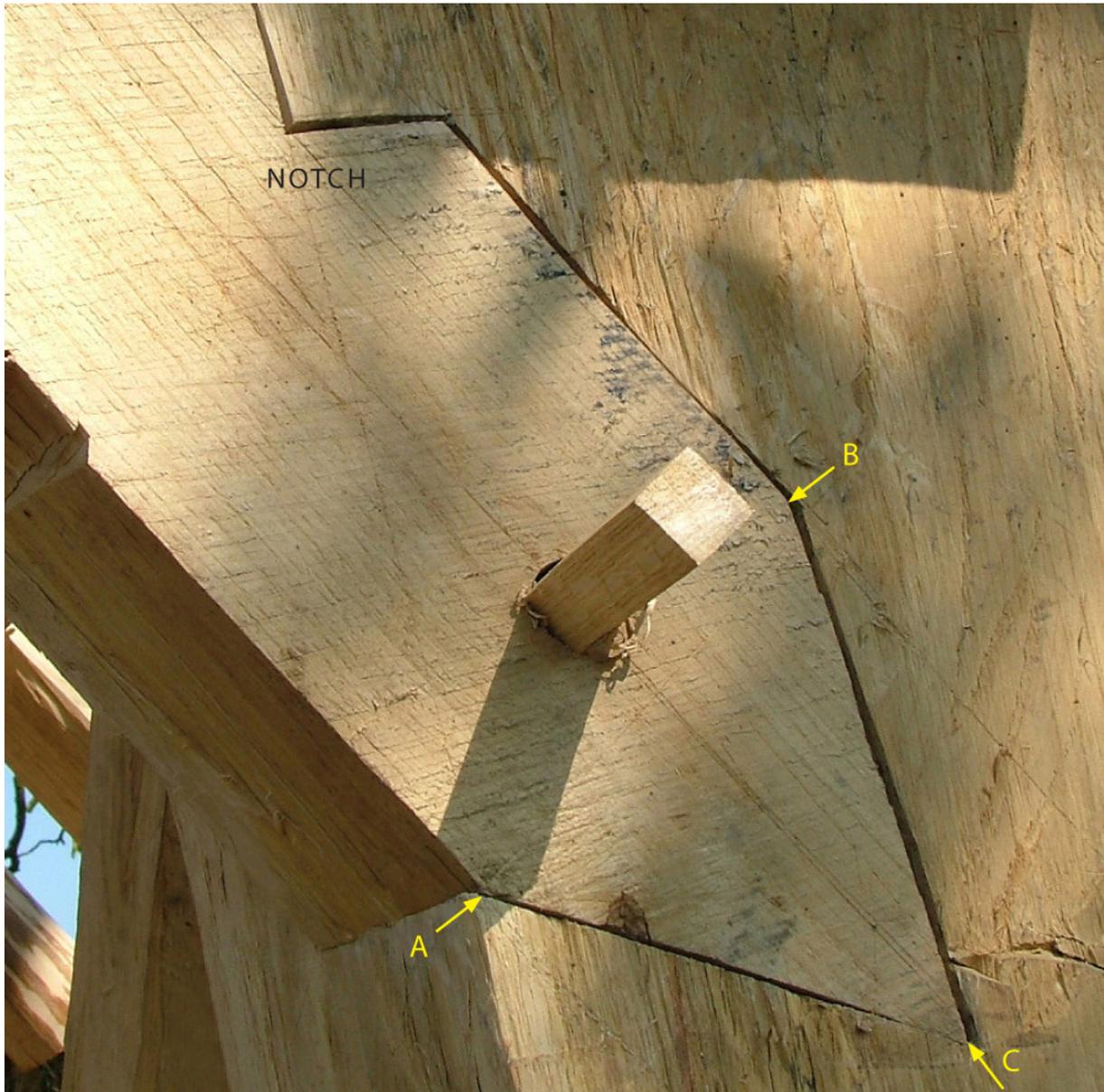
The daisy wheel geometry was set out directly on the ground using two 7 feet 6 inch radius rods. The cardinal geometrical points were marked onto larch board offcuts that were nailed to the ground with 6 inch nails and cross hairs on the boards were plumbed up into the timber lay-ups. The plumbob in the image is annular, which allows the carpenter to see the cross hairs accurately through the central opening.

The hand belongs to Rick Collins of Trillium Dell Timberworks, Illinois, USA, see ~ <https://trilliumdell.com/>



### 3

Laurie Smith drawing the geometry of the passing brace joints into the jowl posts. The geometry was replicated from the adjacent Barley Barn, one of the two famous 13th century Knights Templar barns built at Crossing Temple in the 13th century, the Barley Barn in 1220, the Wheat Barn in 1260.



4

The photograph shows the passing brace joint into the jowl post, the brace on the left and post on the right. The geometry of the joint is an equilateral triangle between points A, B and C. Square pegs are used where it is not possible to peg right through both timbers, the compression of the peg's corners locking it into place as it is hammered home.



5

The test assembly of the Shelter's rear wall, held together by temporary pegs and tensioned straps. The photograph is taken from the frame's ridge (at the bottom of the picture) with the principal rafters and passing braces leading back to the tie beam and, beyond the tie, to the studs and sill beam (at the top of the picture).



## 6

The photograph shows the splitting of sweet chestnut into halves, quarters, eighths and sixteenths in a carpenter's cleaving brake. The sixteenths are then draw-knifed on a shaving horse to provide laths for the wattle weave in the Shelter's wall panels, see photograph 7. The sweet chestnut was split using an L-shaped froe (with a metal blade at right angles to a wooden handle).

Stephen and Becky Westover taught cleaving and splitting on the Gardener's Shelter project. For more information about cleaving and splitting timber visit ~ [www.westoverwoodlands.co.uk/cleaving/splitting](http://www.westoverwoodlands.co.uk/cleaving/splitting)



## 7

The triangular wattle panels have a rigid central vertical stave and two flexible side angles. The central stave is locked into a 'boat', a triangular wooden solid that fits into notches cut out from the frame's cross braces (at the top) and into a channel in the sill beam (at the base). The wattle weave alternates between under-over-under and over-under-over so that it locks around the staves.



## 8

The front gable of the Gardener's Shelter showing the inscribed tie beam, passing braces, principal rafters and ridge beam hewn from a solid oak trunk and carved with the daisy wheel by William Clement Smith.

The tie beam inscription - Grow Beauty in The Garden of Your Mind - was composed by Laurie Smith and the lettering was carved by Rupert Newman of Westwind Oak.

Find Rupert on [www.westwindoak.com](http://www.westwindoak.com) and Rupert's book on [www.bookdepository.com/Oak-Framed-Buildings-Rupert-Newman/9781861087263](http://www.bookdepository.com/Oak-Framed-Buildings-Rupert-Newman/9781861087263)



## 9

A view of the shelter from one of the garden's wild flower meadows with the walnut tree to the right and ancient apples to the left. The garden's horticulturalist, William Rallison, mowed a small viewing area directly in front of the shelter in the shape of its profile, like a green shadow on the ground.

For the full story of the project go to –  
[ARTICLES > The Gardener's Shelter at Cressing Temple](#)

[www.historicbuildinggeometry.uk](http://www.historicbuildinggeometry.uk)

