

Appleton Octagonal Pavilion

9 Photographs



Laurie SMITH
THE GEOMETRICAL DESIGN WORKS



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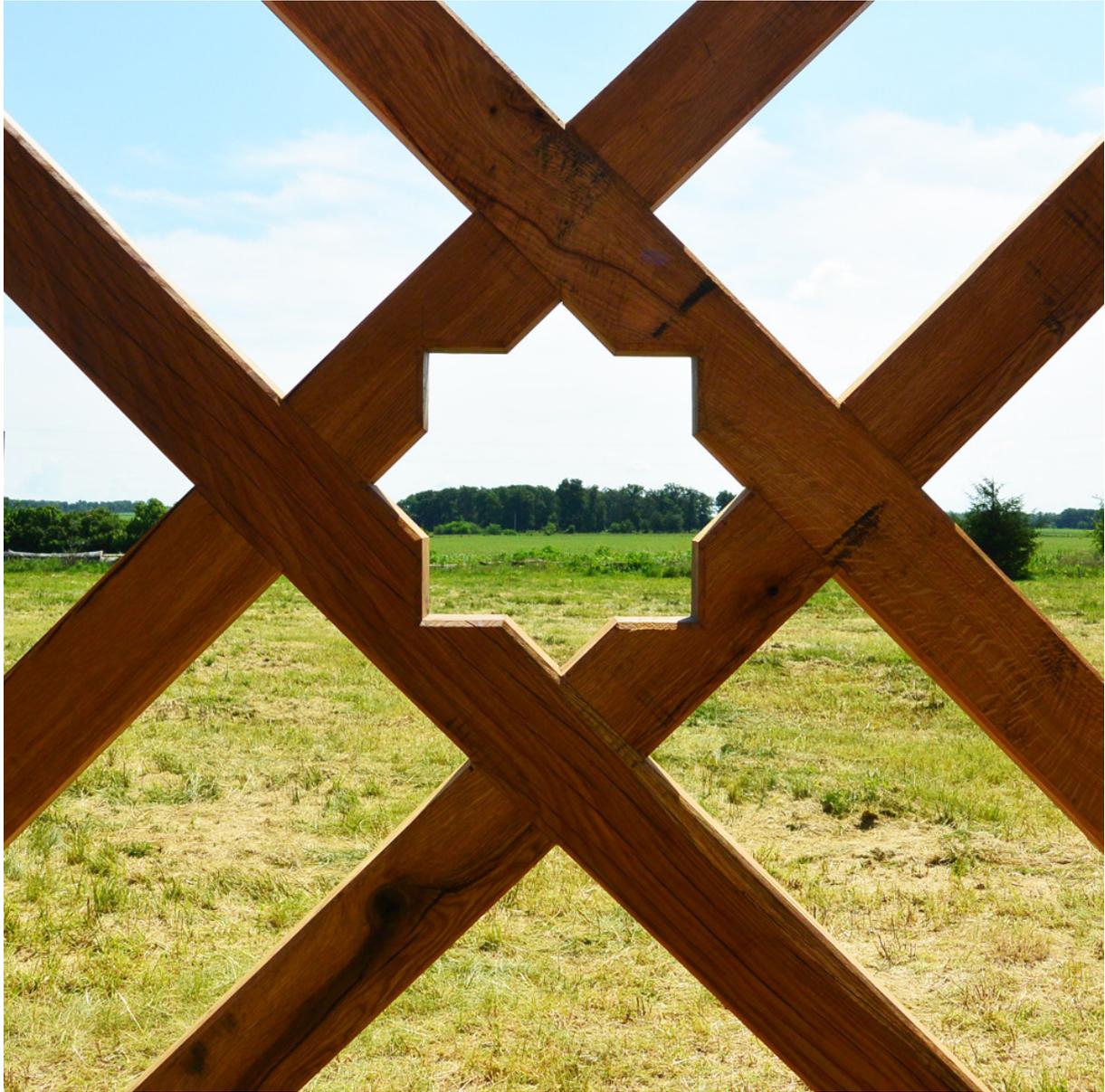
Trillium Dell Timberworks logo, named after the three-petalled trillium flowers that grow in that part of Illinois, USA. Owners Rick and Nicole Collins' motivating ideals: Inspiration, Craftsmanship and Sustainability are the driving energies at their farm and timber-framing workshop in Knox County.

For Trillium Dell Timberworks, Illinois, USA, see ~
www.trilliumdell.com



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The octagonal pavilion partially test assembled at Trillium Dell Timberworks. The final assembly will see the frame with four open sides, three cross-braced panels and a 'porch'. The cross-braced panels, one of which can be seen in the foreground, function as stabilisers for the pavilion's posts as well as providing a sense of enclosure and the frame's visual focus once the roof has been clad.



3

The pavilion bracing timbers are configured in pairs crossing each other in mirror image. Each of the timbers has a simple V cut so that when connected they form a central octagon star. The timbers are half lapped so that their surfaces are level and the rigidity of their bracing is stronger. Each panel contains nine shapes, four triangles at the sides, top and bottom, four long rectangles leading at 45° into the panel's corners and one octagon star at the panel's centre.



4

The pavilion's porch viewed from the frame's interior. Like the wall panels, the porch gable has four lapped timbers, each with a V notch cut away so that when assembled they form an octagon star.

The pavilion's eight main posts are linked through two sets of square tie beams with the upper ties crossing and resting directly on the lower ties. Heavy timbers from the two tie beam squares can be seen above the porch gable at the top of the photograph.



5

The structure of the Pavilion as night fell and artificial lighting was switched on. The boundary ring of two overlapped squares can be seen running between the main vertical posts, illuminated at the background and in shadow in the foreground. One of the cross-braced side panels is visible on the lower right.



6

The Pavilion's octagonal centre pin, cut from walnut grown at Trillium Dell, supports the eight radiating collars and principal rafters. The pin has two related octagonal sections, heavier where the collars and principals join it and lighter in the distance between them. The transition between the two octagonal sections forms a series of interlaced triangles, pointing alternately towards the sky and towards the ground.



7

Once the frame is test assembled to check the accuracy of the joints it is a carpenters' tradition to fix a living branch at the apex of the frame in a symbolic re-instatement of the full tree. Usually the branch is nailed in place by the youngest person in the team. At Trillium Dell it was Jordan Finch's son Asher, Jordan was a tutor on the course, and Rick Collins' son, Liam. In the past the two boys would have climbed the frame but in modern Trillium Dell they were skylifted to the frame's apex in a cherry picker and leaned out of the bucket to nail on their branch, see the front cover image. The tradition extends to include photographs of the team on the frame.



8

Welcome beacons in the night, the celebratory bonfire and illuminated frame on the project's final evening. The bonfire is a reminder that the Pavilion's final location will be adjacent to the Volunteer Fire Service building in Appleton Community and will be a fund raising venue and focus for their essential work. The Octagonal Pavilion was a gift to the Fire Service from Rick and Nicole Collins.



9

The assembled frame riding a low loader from Trillium Dell to Appleton Community. Although the distance was short, about three miles, it was necessary to wait until winter temperatures had set the ground rock solid and the loader was well supported for the journey. Now, in its final location, the roof has been shingled and the intricate structure of the frame can only be seen from inside the building.

For the full story of the project see ~
[ARTICLES > Appleton octagonal Pavilion](#)

www.historicbuildinggeometry.uk

