



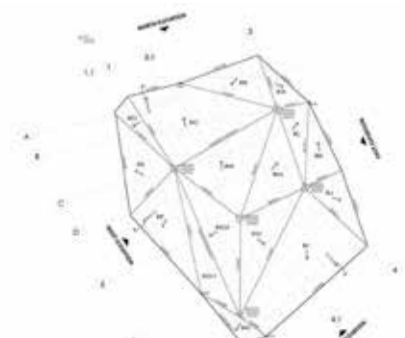
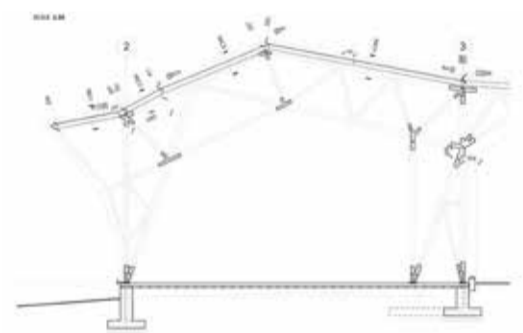
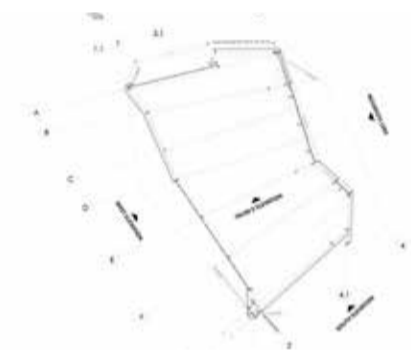
invisible studio completes hooke park big shed with natural tree trunk trusses

english practice [invisible studio](#) in collaboration with the [architectural association of london](#) and [design & make students](#) have recently completed the [hooke park big shed workshop](#) in [england](#). the angular timber structure serves as a workshop space for the design & make program providing a space for prototyping, assembly, and research of construction methods and projects carried out by the program. the name is derived from the structure's location in hooke park where the native materials were also extracted, and itself serves as a case study developing the use of tree trunks 'in the round' to create complex structures, minimizing the need for the industrial milling process while using the raw planks efficiently and effectively.



the angular form is located in hooke park, made from a variety of local timber
image © [valerie bennett](#) (also first image)

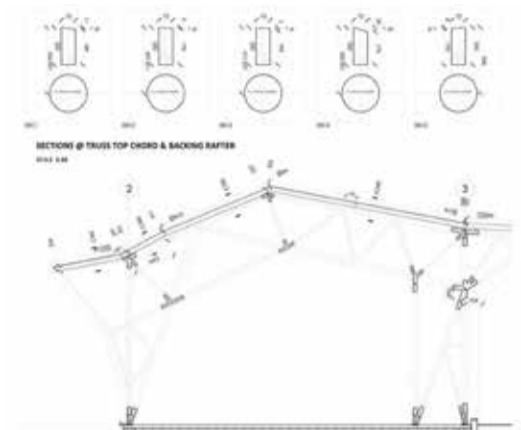
the wood used in the structure was sustainably harvested from larch trees recently felled to help combat the spread of **phytophthora**, a crop-killing organism capable of destroying vast vegetated areas. a series of irregularly shaped trusses were prefabricated on site and erected into place using a variety of trunks each with their own unique characteristics. in developing this construction method, the engineers worked closely with the designers to calculate the structural potential of each trunk based on its diameter, taper, straightness, and quality so as to be positioned appropriately in the truss to withstand the required forces. long heco topix timber framing screws were used to connect the irregularly-shaped chords with special attention paid to the angel and depth for maximum structural capacity.



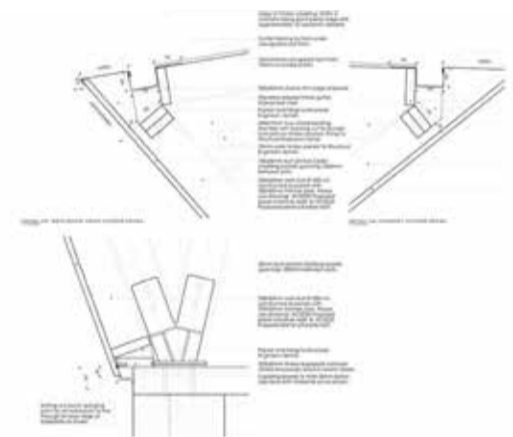
the exterior of the triangulated form is clad in western red cedar boards acquired from the felling of 30 local trees, picked for its durability and low maintenance properties. the dynamic form is in a state of constant change, made up of angled fragments that peel away from the ground exposing translucent polycarbonate walls that provide much of the structure's natural lighting. a large warehouse-style doorway allows for the construction of larger assemblies to be transported in and out, a multi-functional space that gives the flexibility to work on almost any project. the roof consists of corrugated steel sheets that provide adequate drainage and again require very little maintenance. at the center, a triangular skylight illuminates the interior.



image © valerie bennett



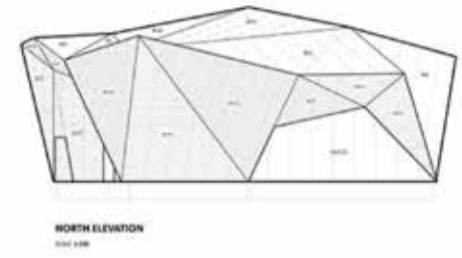
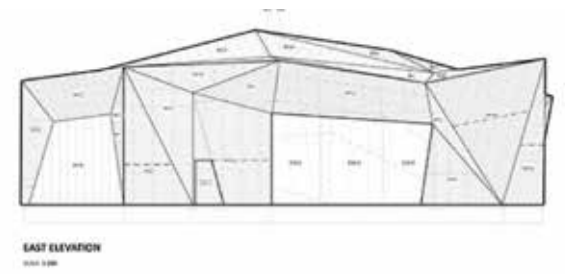
the structure sits on a concrete foundation that serves as the ideal floor for a multi-functional indoor/outdoor workshop
image © valerie bennett



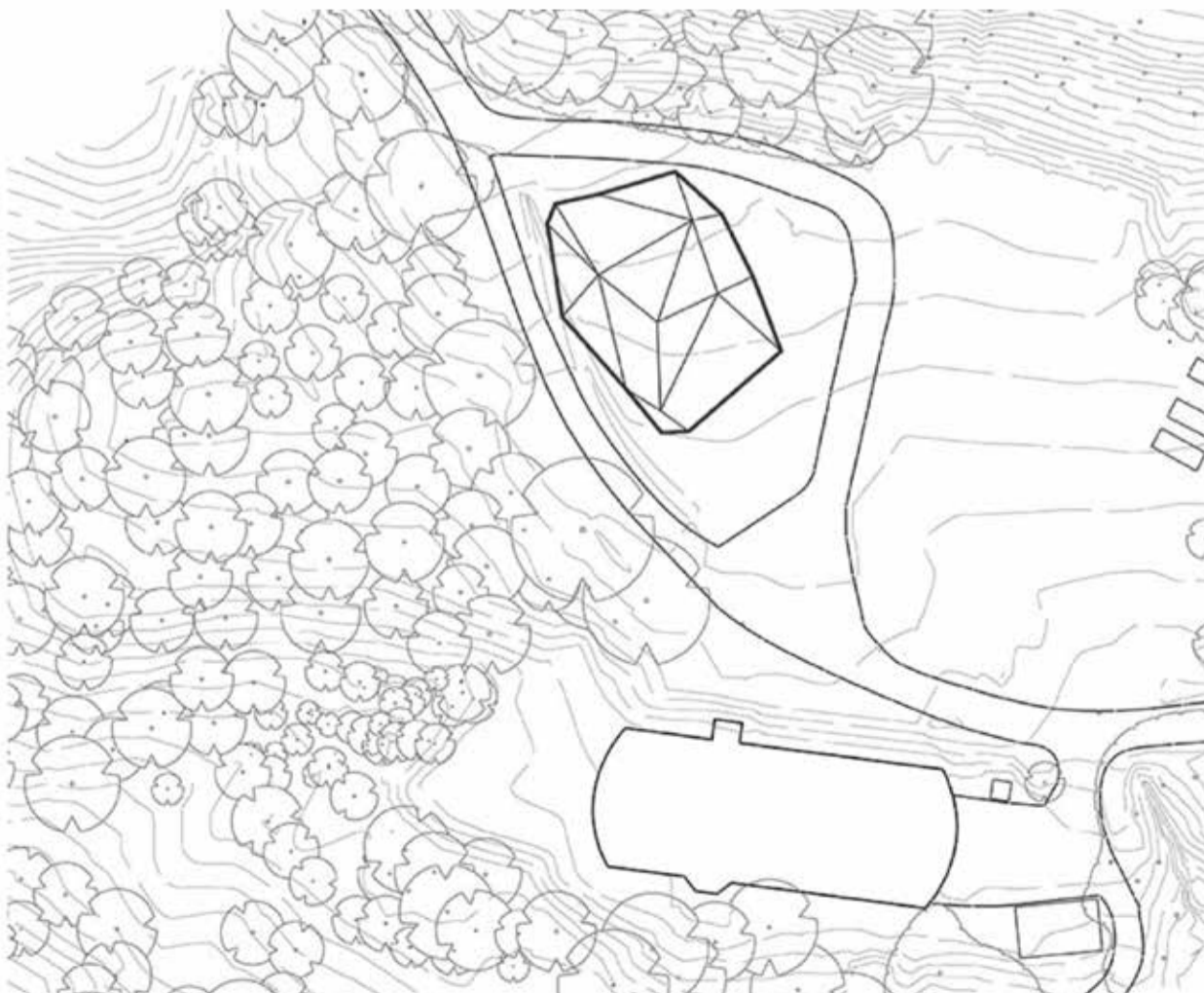
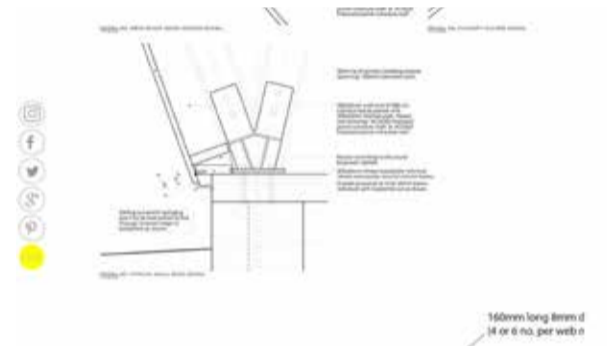
a series of trusses developed with engineers uses felled natural tree trunks as research into the use of irregular planks for complex shapes
image © valerie bennett

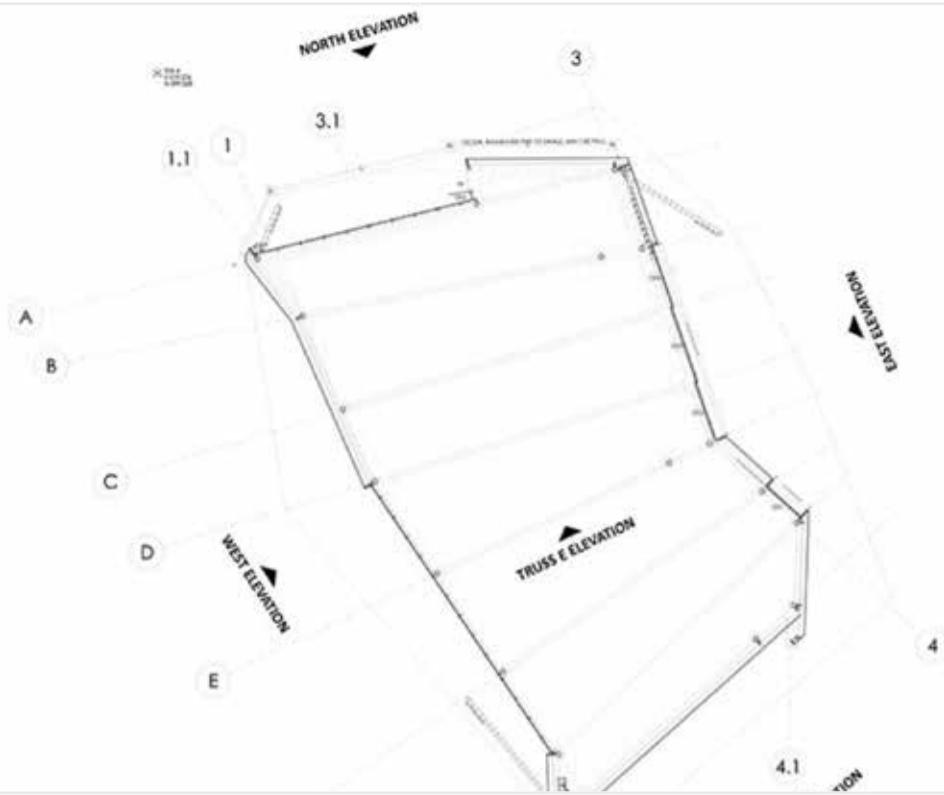


corrugated sheets provide a low maintenance roofing material capable of cladding the irregular form
 image © valerie bennett
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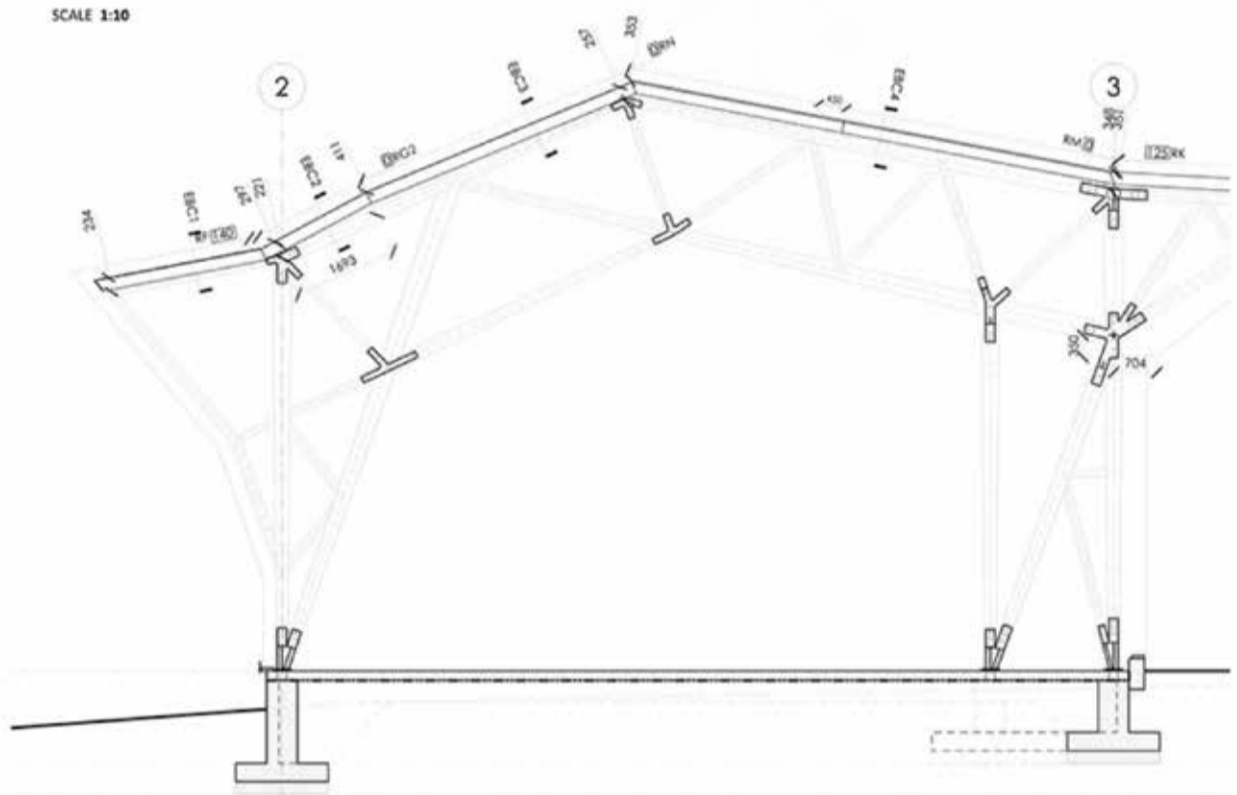


the structure was built with both students and volunteers
 image © valerie bennett





SECTIONS @ TRUSS TOP CHORD & BACKING RAFTER
SCALE 1:10



TRUSS E ELEVATION
SCALE 1:75

