

MATERIAL
CONSIDERATIONS
A NATURAL FACTORY

20

CASE STUDY
DAVID DOUGLAS PAVILION







With thanks to Robin Baker t/a Gaia Architects for photography.

Timber technologies

The timber used in this project is predominantly Douglas fir, all grown and processed in Scotland. Traditionally jointed timber elements provide the basic structure of the building, and lateral stability is provided by the building's shape and the stick-framed curved wall. The columns supporting the perimeter of the roof are made from larch, which are raised above the ground on galvanised steel brackets. The roof is tiled with untreated larch shingles and the walls contain two hidden layers of oriented strand board. The interior floor is made from a variety of hardwoods. The David Douglas Pavilion has a fairly extensive eaves overhang with a long sweeping curve.

Special timber-related features

The original concept was of a 'folded leaf' used as an over arching roof form protecting the sheltered space within. The combination of traditional pegged framing construction and modern sheathed framing, then informed the concept to produce the simple organic form of the building. The entire superstructure is constructed in Scottish timber. The main structural posts & beams, roof decking, wall framing, cladding and viewing deck are all in untreated Douglas fir. The roof finish is sawn larch shingles, from untreated selected heartwood. The windows and doors have been made in laminated Scottish oak. Ash and elm boards have been laid on the floor. The walls are clad with vertical Douglas fir.

CASE STUDY

DAVID DOUGLAS PAVILION

Name of building

David Douglas Pavilion

Date completed

2003

Building type

Public

Location

Explorers Garden, Pitlochry Festival Theatre, Perthshire

Architect

Robin Baker t/a Gaia Architects

Client

Scottish Plant Collectors Garden

Main contractor / timber supplier

Carpenter Oak and Woodland Co. Ltd.

Awards

Shortlisted for the Wood Awards 2003

Anticipated lifespan of building

Structure & wall cladding – 60 years plus.

Roof shingles – 20 years plus (depending on maintenance).

Background to building

The pavilion celebrates the life and achievements of Scottish Botanist David Douglas. It is also a practical demonstration of the use of Scottish grown timber. The brief, conceived by the Scottish Forest Industries Cluster, was to produce a contemporary building with organic influences to its design. The inspiration for the shape of the building comes from a number of sources including the symmetrically folded seeds of Douglas fir. The David Douglas pavilion was built for Pitlochry's Scottish Plant Collectors Garden and its design intended to be innovative and promote the use of home grown timber. The primary structure is made entirely of untreated Scottish Douglas fir. The roof is clad in untreated, heartwood larch shingles whilst doors and windows are made from laminated Scottish oak. The pavilion was designed and built in collaboration with the Gaia Group who were approached by Scottish Enterprise and the Scottish Forest Industries Cluster Group because of their strong eco principles.

Material Considerations

A Natural Factory

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