

## Project

# TIMBER PAVILION OF THE VIDY-LAUSANNE THEATRE

## Architects

BUREAU D'ETUDE WEINAND

## Address

Avenue Emile-Henri-Jaques-Dalcroze 5, 1007 Lausanne

## Programme

Located next to the historical theatre building, a few steps from the shores of Lake Geneva, a new hall entirely made of wood, called the Pavilion, was designed by the architect Yves Weinand, manager of IBOIS EPFL. It is characterised by a structure with "origami" shapes, all in folds and broken lines, and replaces an old tent installed on the same site.

## About

The Vidy-Lausanne Theatre Pavilion is the prototype of a new type of construction whose structure and assemblies are made with wood-wood connectors by interlocking. This architecture, the result of a technological transfer from the IBOIS laboratory, integrates the constraints of the site and the challenges of cost and deadline control, clean site and sustainable construction. The double-ply assembly technique developed for this building uses folded panels that are both a load-bearing structure and cladding. The walls and eleven arches of the Pavilion roof are fully designed in wood panels and assembled without metal elements.

The jointing technique used is inspired by one of the oldest methods used for wooden constructions, dovetail wood-wood joints, the precise and specific cutting of which was made possible by the development of automated joinery. IBOIS' research applied to the Pavilion has led to the development of a supporting structure that can stretch over a distance of 16 to 20 m without pillars and with a panel thickness of only 45 mm. The distance between the two layers is 300 mm. The hollow space with a depth of 210 mm accommodates the insulation which is made of cellulose wadding.

The use of domestic wood, guarantees a very low environmental impact: CO2 absorption when the wood is alive, minimal emissions for transport, processing and construction, sustainability and renewal with no impact on the climate.



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OTHER PROJECTS :

## Typology

Culture

## Status

Built

## Conception

2015

## Delivery

2017

## Client

Théâtre de Vidy-Lausanne

## Area

540

## Stability

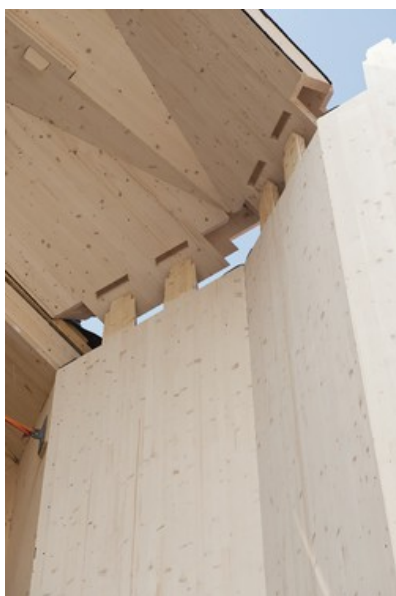
Bureau d'Etude Weinand

## Others

Laboratoire des Constructions en bois (IBOIS) de l'Ecole Polytechnique Fédérale de Lausanne (EPFL) (Transfert technologique)



Timber Pavilion of the Vidy-Lausanne Theatre  
 Â© Ilka Kramer



Assembly, wood-wood connections  
 Â© Ilka Kramer



Timber Pavilion of the Vidy-Lausanne Theatre  
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Axonometry of the principe of assembly  
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