

The Summer Pavilion BOWOOSS combines traditional timber with filigree lightweight technology. The result is an interdisciplinary research project, carried out in craft art at the School of Architecture Saar, SAS, led by the Institute for B2E3 Efficient Buildings (Prof. Göran Pohl), the Bauhaus University (Prof. Dr. Jürgen Ruth), fa. timber Stephan with the AWI and the lightweight Institute Jena. In the research approach focused on new findings parametric architecture and transfer potential in traditional materials and craftsmanship technology. BOWOOSS served the qualification of suitable design tools and interfaces into production. Generative form-finding and optimization techniques were used to implement the CAD results on joining technologies and in manufacturing, transport and construction. The result is the translation of the "heavy" traditional timber construction technology in a composition by volume and material, lightweight and space.

Research pavilion BOWOOSS should obtain an integrated into the sheath support structure, which can be implemented by means of simple tools, despite complex form. The designed on the basis of biological models supporting structure consists of molded laminated wood elements which form primary and secondary beams in the spatial positions and cooperate with the composite sheath. The shell forms a filter, which lighting, ventilation and visibility regulated. In the folds of the timber shell pavilion pore structures are introduced, which are generically identified and optimized. The openings are arranged in areas of minimum load, and have received their oval shape by structural analysis, and the physical model. You are responsible for the bulk savings, which makes transport and assembly in low weight felt.

Client HTW des Saarlandes

Participants

B2E3 Institure for efficient buildings at the school of architecture Saar, HTW Saarland, Prof. Göran Pohl (project leading); Bauhaus-University Weimar, Prof. Dr. Jürgen Ruth; Fa. Stephan-Holzbau, AWI (Alfred-Wegener-Institute Bremerhaven), Pohl Architects, Lightweight Building Institute Jena

Research & establishment 2009-2011, Construction summer 2012 - two days

Size L = ca. 16 m, W = ca. 8 m, H = ca. 4 m

Adress Waldhausweg 14, 66123 Saarbrücken

Material

Glued laminated Timber and laminated veneer timber















POHL ARCHITEKTEN