

**KLH®**

PROJECT

LA BARROISE

LOCATION

*Bar-le-Duc,
France*

FINALIST OF NATIONAL WOOD CONSTRUCTION AWARD 2022

With a building of this type, one must gain mass in order to respond to sound insulation requirements without resorting to concrete, which would be the easiest solution. The challenge with this project consisted of a thorough study and analysis in order to achieve an acceptable CO₂ balance.

To restrict the negative effects as far as possible, we suggested wood as a building material and natural materials as insulation. We chose a technical and industrially prefabricated wooden material with excellent thermal properties and a drastically reduced insulation requirement. The cubature is surprising: it consists of two intersecting building volumes with zinc sheet and wood cladding. The hall must be configurable for a wide variety of events – from dance and theatre to opera, concerts, variety shows, banquets and exhibitions.

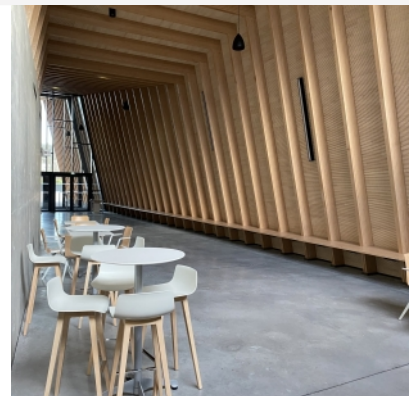
In order to meet the requirements of all these usages, we needed structures that are sufficiently robust on the lower floors (formwork) whilst being variable in terms of the elevation and roof, to ensure the vibrations that are necessary for proper functioning (panels for sound insulation or sound reflection). The construction lies on a single 40-metre steel girder.

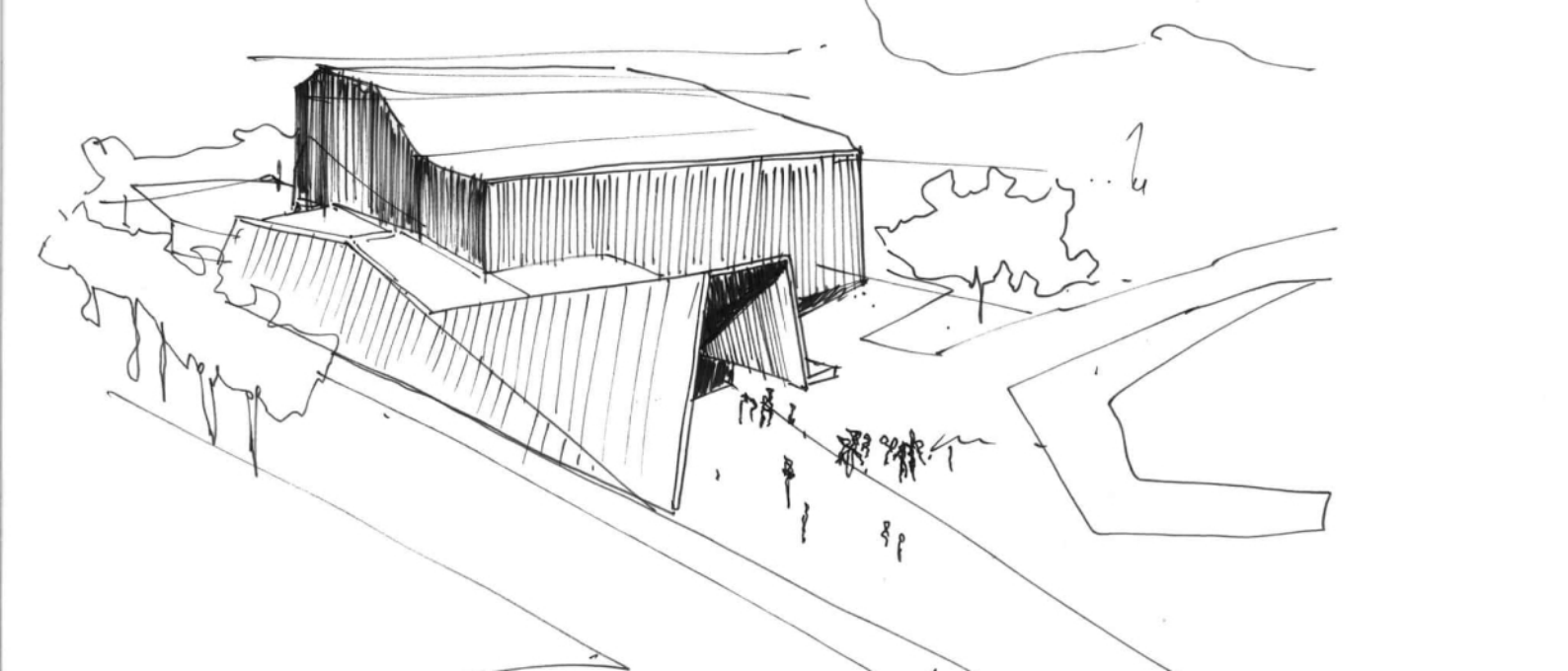
PROJECT INFO

VOLUME OF KLH® – CLT
300 m³ / 4.000 m²

STORED CARBON
238 tonnes (Regrowth time in Austria – 5 min)

PUBLIC BUILDINGS







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ARCHITECTURE

Thomas Architectes
www.thomas-architectes.com

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TIMBER CONSTRUCTION

GOUDALLE Charpente
www.goudallecharpente.fr

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CLIENT

Communauté d'agglomération Bar-le-Duc Sud Meuse

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PHOTOGRAPHY

Architecte Jean-Luc Thomas
Paul Kozłowski

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TIMBER SUPPORT STRUCTURE CONSTRUCTION

LGI Structure Concept
www.lgi-bet.com