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Pavilion MANAL

Pavilion MANAL is an exhibition space, a proof of concept, a precursory project combining sustainability and circularity – thus challenging the status quo of construction materials. It showcases the first structural application of Oulesse® concrete, Oxaras cement-free, low-CO₂ alternative. In combination with stabilised poured earth Oxacrete® Nossim and Oxabloc compressed earth blocks - made with Oxabrick® Loko-, the pavilion explores the potential of using Oxara's cement-free materials alongside conventional ones, aiming to minimise the use of emission-intensive materials.

Location
Horw, Switzerland

Products
Oulesse®, Oxacrete® Nossim,
Oxabrick® Loko

Architecture
Design architecture: Sara Sherif
(Oxara), Stefan Wülser (HSLU);
execution architecture: ARGE Nina
Hug, ATELIERWATT GMBH

Date
2024

Material Production
KIBAG, TERRABLOC

Construction
Marti AG Bauunternehmung Zürich,
ERNE AG Bauunternehmung, Repoxit

Sponsors
BAFU, City of Zurich, Swiss Prime
Site, Klimastiftung Schweiz

Supporters
Holcim, Küng Holzbau, Müller
Steinag, Repoxit AG, Zirkular,
Duramon

Cooperation is Key

Oulesse® concrete is used for the foundations and load-bearing columns, stabilised poured earth forms the non-structural wall elements, and compressed earth blocks extend the concrete walls, creating arches and vaults of varying sizes. Reused tunnel slabs define the structure's layout and serve as flooring, while a wooden ring beam and steel cables provide additional stability, optimise load distribution, and minimise material use.

The project follows an interdisciplinary approach that brings together expertise from material science, architecture, engineering, and construction. This collaboration has led to the development of new solutions that make use of materials beyond conventional standards. The approach not only advances sustainable building practices but also encourages cross-disciplinary dialogue to challenge and expand traditional construction methods.



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You want to make an impact? Let's talk!

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