

Architects. Design Studio

Timothy Allen, Ronan Crippa, Aline Steiner

Consultants

Martin Rauch - Lehm Ton Erde Baukunst GmbH (Rammed Earth), merz kley partner GmbH (Building Engineer), Spektrum Bauphysik & Bauökologie GmbH (Building Physics)

Client

Daniel and Isabelle Saluz

Contractors

EGGA Holzbau GmbH (Carpenter), Schreinerei Paul Stricker GmbH, Gebr. Hermann AG (Natural Stone Works)

Start and Completion Year

2020-2022 (Design), 2023-2025

Gross Area

373 m²

Sustainable and healthy materials or systems

preservation, restoration, rammed-earth

Photography

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Contact and more information

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More information

Gässli5 House

Relocation and Rammed Earth Extension

Reubicació i ampliació de Casa Gässli5 Reubicación y ampliación de Casa Gässli5

Grabs. Switzerland, 2020-2025 **Allen + Crippa**

REPORT. Sustainable and Healthy Architecture

The Gässlihaus is one of the oldest and best-preserved timber houses in the Werdenberg region. Originally scheduled for demolition, the only way to preserve the 350-year-old structure was to carefully dismantle and reassemble it at a new location within the village. In order to retain the historical simplicity of the house while ensuring its contemporary usability, it has been complemented by a new rammed-earth annex, positioned within a newly created permaculture garden. This addition not only expands the spatial possibilities of the project but also establishes a strong architectural dialogue between old and new.

Architecture and Concept

The restoration concept emphasizes preservation through transformation. The original timber structure has been reassembled with minimal alterations, maintaining its authentic materiality and character, while the new annex provides generous, double-height spaces that enable flexible configurations and contemporary use. This architectural interplay allows for a seamless transition between past and present, where the integrity of the historical building remains intact, yet it gains new functionality.

The new annex is designed as a massive, monolithic volume, contrasting with the lightness of the timber structure. Built using rammed earth with a hemp-insulated envelope and clay plaster interiors, it embodies principles of simple, sustainable construction. The material palette is deliberately reduced to biodegradable, recyclable, and locally sourced elements, reinforcing the project's ecological responsibility. The thick earth walls not only provide high thermal mass for passive climate control but also create a calm, grounding atmosphere within the space.

Sustainability and Well-being

A key focus of the project is the well-being of its users, achieved through optimized natural light, air quality, and acoustic comfort. The breathable, non-toxic materials enhance environmental quality, while the spatial arrangement fosters openness and flexibility. The annex, constructed from rammed earth with natural insulation, ensures stable humidity, excellent air quality, and a comfortable indoor climate. By integrating passive design strategies—such as natural ventilation, daylight optimization, and material breathability—the project significantly reduces energy demand and the need for mechanical systems. Located within a permaculture garden, the site promotes biodiversity and ecological balance. Native plant species, pollinator-friendly vegetation, and water management systems contribute to the long-term regeneration of the land. The project's careful integration with its natural surroundings strengthens the relationship between architecture and landscape, fostering a sense of harmony and connection to place.

A Model for Sustainable Transformation

Through the combination of historical preservation, sustainable innovation, and a focus on user well-being, the Gässlihaus project presents a thoughtful model for adaptive reuse. The contrast between the delicate timber structure and the monolithic rammed-earth addition exemplifies how architecture can bridge heritage and modernity while maintaining a commitment to environmental and social responsibility. By integrating ethical construction practices, passive energy strategies, and material circularity, the project sets a precedent for how historic buildings can be sustainably revitalized for the future.