

Nuova serie / New series n. 12 - 2024

# ARCHALP

Rivista internazionale di architettura e paesaggio alpino / Revue internationale d'architecture et de paysage dans les Alpes / Internationale Zeitschrift für Alpine Architektur und Landschaft / Revija za alpsko arhitekturo in pokrajino / International journal of alpine architecture and landscape

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## **Risorsa e costruzione. Architetture in legno nelle Alpi**

Ressource et construction. Architecture en bois dans les Alpes /  
Ressource und Konstruktion. Holzarchitektur in den Alpen / Viri in  
konstrukcija. Lesena arhitektura v Alpah / Resource and construction.  
Wooden architecture in the Alps

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**Copertina** / Cover: detail of the façade of the Salgenreute chapel, Bernardo Bader

Architekten, Krumbach, 2016 (Photo Cristian Dallere)

## Errata corrige

Nel numero 11-2023, nella didascalia di p. 72 compare erroneamente come immagine d'apertura Église du Sacré-Coeur, Brig, Atelier coopératif d'Architecture et d'Urbanisme (ACAU), 1970 (Nadine Iten), la didascalia corretta è: Église St-Nicolas d'Hérémence, Hérémence, Walter Förderer, 1967 (Michel Martinez), ce ne scusiamo con gli autori e i lettori / In No. 11-2023 issue of ArchAlp, the captions on pages 72 erroneously report as the opening image Église du Sacré-Coeur, Brig, Atelier coopératif d'Architecture et d'Urbanisme (ACAU), 1970 (Nadine Iten), the correct caption is Église St-Nicolas d'Hérémence, Hérémence, Walter Förderer, 1967 (Michel Martinez). We sincerely apologise to the authors and our readers.

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# Technology and figuration in the central and eastern Italian Alps

*Edited by Cristian Dallere*

The projects featured in this review were selected from the Central and Eastern Italian Alps. Starting with the redevelopment of a rural building in the Aurina Valley, moving on to a trade fair complex in the Belluno area characterized by a significant wooden reticular structure, then the "House of the Mountains" in South Tyrol, and finally a barn designed in the province of Sondrio. The exceptional construction quality of these projects, which are very diverse from one another, indicates a profound knowledge of the material and its design potential.

**Architekturkollektive null17**  
**Studio Botter**  
**Studio Bressan**  
**Delueg architekten**  
**act\_romegialli**

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**Architekturkollektive null17**

# Alter Stadel Maireggerhof

**Location:**

Valle Aurina, Alto Adige, Italy

**Chronology:**

2019-2022

**Project category:**

Housing

**Photos:**

Alex Schidlbauer



The “Mairegger” barn is situated at an altitude of approximately 1090 meters, roughly 80 meters higher than the valley floor of San Giovanni in Valle Aurina, on the left side of the Aurino stream. The project emerged from the client’s need to convert the old barn into a residence. Expanded over time with additions like a workshop, dairy, silo, and storage coverings, the barn was in a partially dilapidated state. Construction began by removing poorly integrated extensions and statically consolidating the barn. To repurpose the ground floor as storage for agricultural equipment, consol-

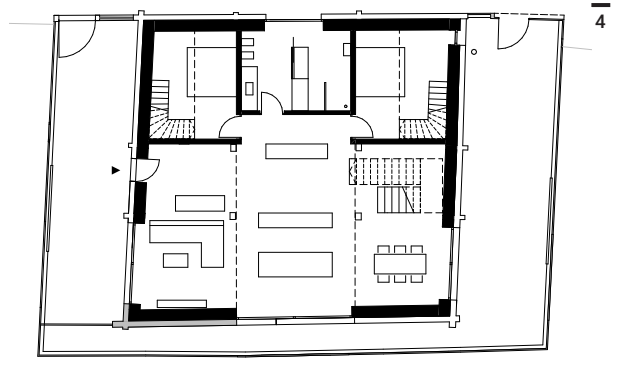
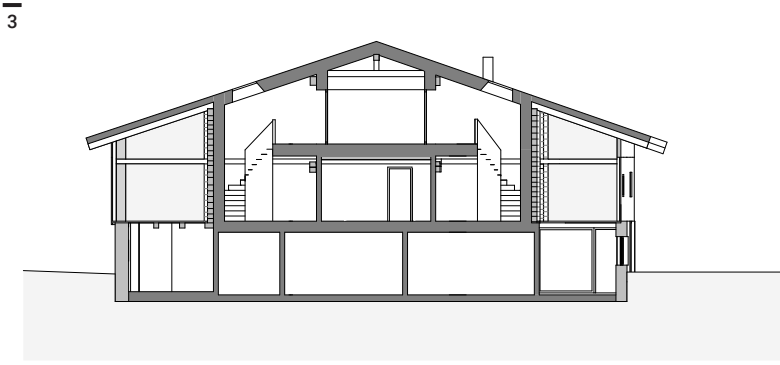
idation was achieved through a reinforced concrete skeleton, which serves as the load-bearing element for the upper floors. This, in combination with a concrete slab, acts as a bracing element against lateral ground pressure. The residence spans the first floor and attic, with entry via a perimeter balcony acting as an external filter space. This layout keeps the barn facade clean while allowing ample natural light and ventilation through large openings. The residence features a structurally independent solid wood core, offering excellent thermal properties to the building.

**Opening picture**  
The big zip, act\_omegialli, Mantello, Sondrio, 2022 (photo Marcello Mariana).

**Fig. 1**  
Internal detail of the existing wooden carpentry.

**Fig. 2**  
General view of the building.





**Fig. 3**  
Cross section.

**Fig. 4**  
First floor plan.

**Fig. 5**  
External view of the  
entrance.

**Studio Botter +  
Studio Bressan**

# Palaluxottica

**Location:**

Agordo, Belluno, Italy

**Chronology:**

2017-2018

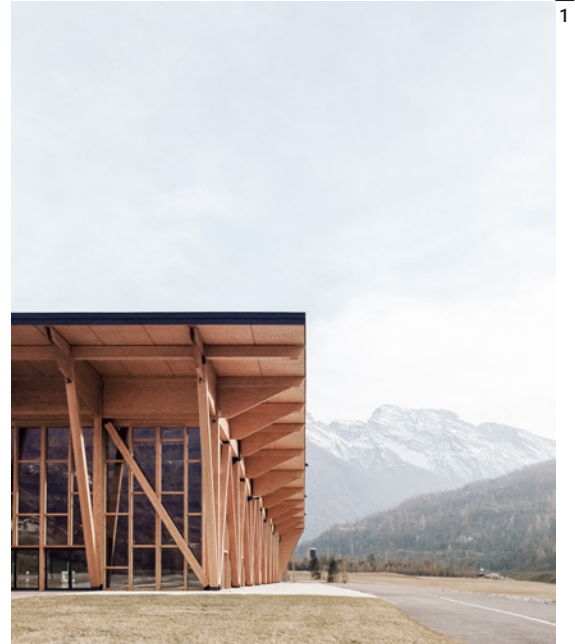
**Project category:**

Multifunctional

**Photos:**

Simone Bossi

The project is situated in a verdant area on the outskirts of the city, within an Alpine landscape characterized by distinct natural and human-made features. The building serves multiple purposes, including community gatherings, exhibitions, and entertainment events. It is designed to host concerts, theatrical performances, conventions, conferences, art exhibitions, and expos. The building's structure primarily consists of glued laminated timber, encompassing pillars, roof beams, and bracings. The foundation consists of interconnected concrete plinths supported by a concrete

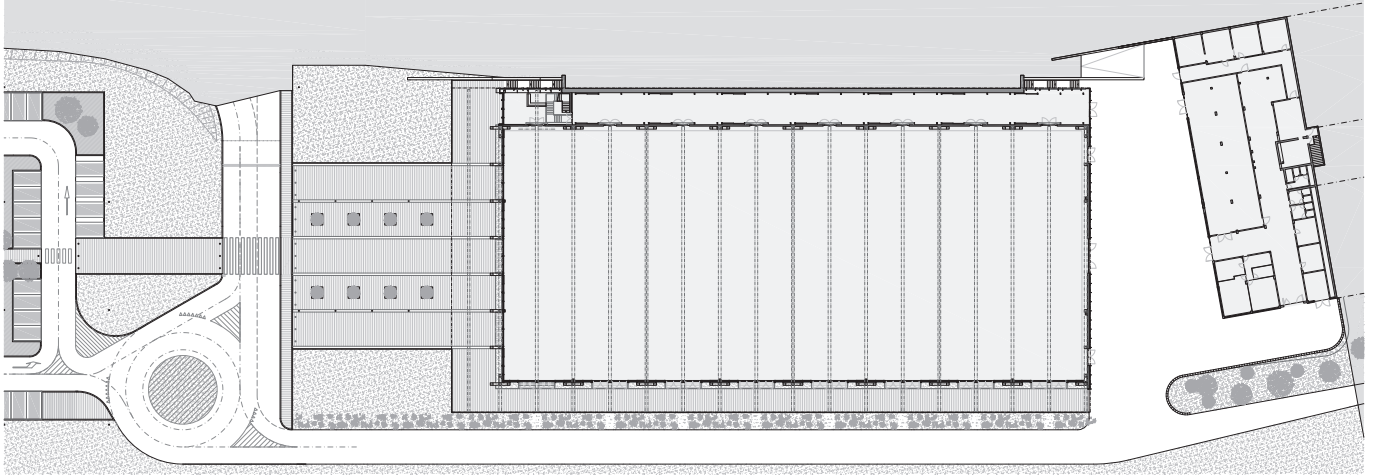


raft. The structural design features a series of parallel isostatic frames, braced by diagonal elements along the long sides and external struts/tie rods connecting the pillars to the concrete containment wall on the east side. The choice of wooden truss beams was influenced by the 44.80m span. The construction system emphasizes extreme lightness and the use of prefabricated elements. The structural grid plays a pivotal role in defining the lightweight interiors, distinguished by the roof's distinctive shape, a key architectural feature of the building.



**Fig. 1**  
External view from  
North.

**Fig. 2**  
External view of the  
West elevation.



**Fig. 3**  
Longitudinal section.

**Fig. 4**  
Ground floor plan.

**Fig. 5**  
Internal view.

**Delueg architekten**

# Haus der Berge

**Location:**

Sesto, Alto Adige, Italy

**Chronology:**

2022-2023

**Project category:**

Multifunctional

**Photos:**

Sebastian Schels



In 2009, the alpine mountain massif of the Dolomites was designated as a UNESCO World Natural Heritage Site. Following deliberations on establishing a visitor center, the local Tourist Association and the municipality of Sesto initiated a planning competition for the “Haus der Berge” (House of Mountains) in 2016. The chosen site was the area adjacent to the congress center on the village’s outskirts. The design of the five-story tower-like building aims to promote awareness of the unique landscape, ecosystem, and inhabitants of the region. The structure is primarily built using locally availa-

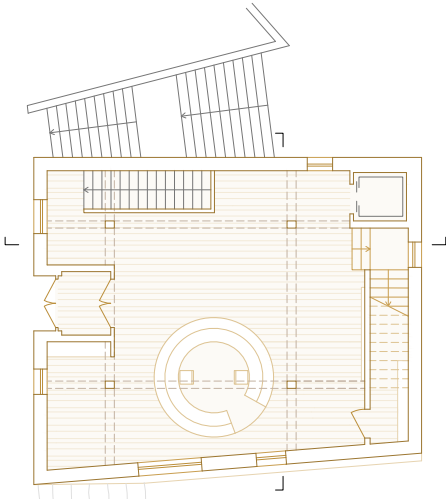
ble wood (larch and spruce, totalling 220m<sup>3</sup>) sourced from the community’s forests, free of plastic, glue, and metal. By vertically stacking the functions, the tower-like structure (approximately 1700m<sup>3</sup>) minimizes ground consumption while providing panoramic views of the landscape. Constructed from the ground floor up, the building features glue-free, vertical, solid-wood-block construction. The untreated timber blocks forming the walls and ceilings are joined with wooden joints, allowing for the complete dismantling and reuse of the structure and materials in the future.



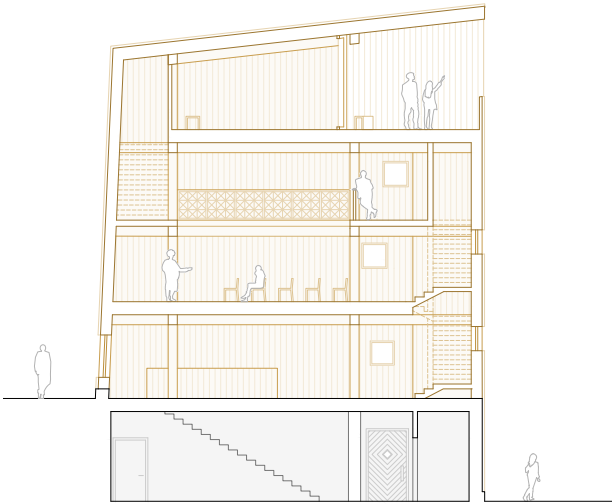
**Fig. 1**  
External view of the terrace.

**Fig. 2**  
Internal view on the first floor.

3



4



5



6

**Fig. 3**  
Ground floor plan.

**Fig. 4**  
Section.

**Fig. 5**  
General view from  
the street.

**Fig. 6**  
Internal view on the  
ground floor.



act\_romegialli

# The big zip

**Location:**

Mantello, Sondrio, Italy

**Chronology:**

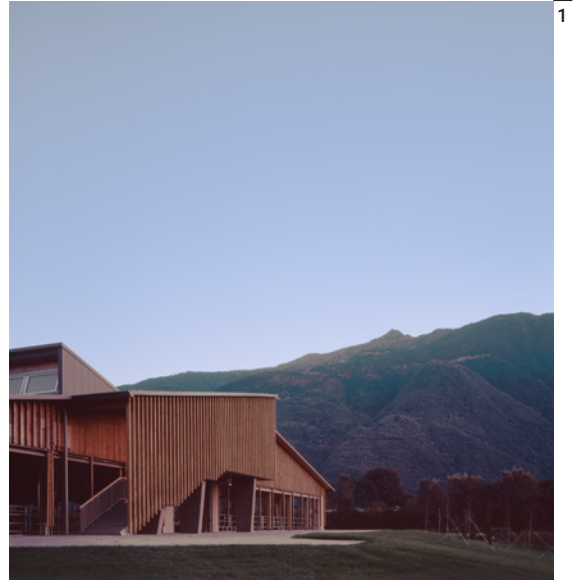
2022

**Project category:**

Production

**Photos:**

Marcello Mariana



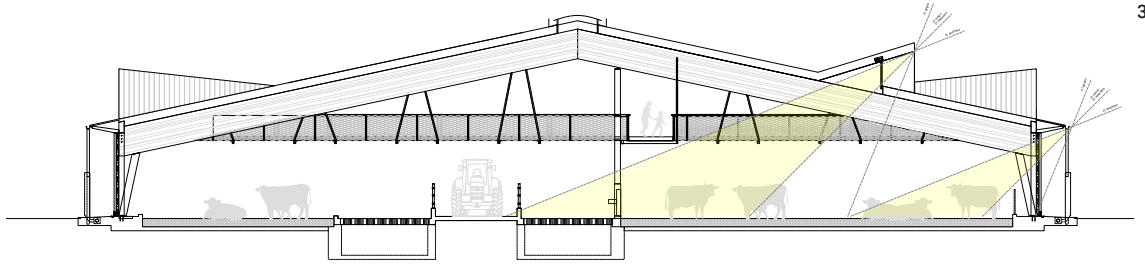
The design concept revolves around creating a new stable capable of accommodating the 120 cows from the old facility, where each had only 7 square metres, and providing them with improved welfare in spacious quarters of 21 square metres per cow with free housing. Additionally, the structure is envisioned to serve as a site for visits, education, and reception. To fulfil this role, the project includes an elevated level at +3.90 metres featuring educational spaces and an aerial walkway. This walkway leads to a pedestrian path allowing visitors to observe operational activities from above without disturbing the animals. The project aims to bring or-

der, rhythm, and proportion to a large, intricate “machine” characterized by a rigid layout that optimizes both animal welfare and production requirements. Architecturally, the focus is on an expansive roof comprised of 52 lamellar wooden beams inclined at 12°, spaced 5 meters apart and supported by 52 tripartite wooden pillars. To break the 45-meter span, a series of double pillars inclined at 67° are positioned to intercept the pitch of the roofing beams longitudinally. These V-shaped pillars not only support the pedestrian walkway but also serve as a defining architectural feature throughout the space.



**Fig. 1**  
External view from  
North-West.

**Fig. 2**  
Internal view of the  
stable.



**Fig. 3**  
Cross section showing the entry of light during the solstices.

**Fig. 4**  
Internal view with detail of the structure.