

# From the Bronze Age to the Modern Era

a+r Architekten expand the renowned Pfahlbaumuseum on Lake Constance by adding an attractive exhibition hall in timber construction.



It takes science and imagination to find out how people lived in the Stone and Bronze Ages. The Pfahlbaumuseum Unteruhldingen on Lake Constance has been focusing on this combination for over 100 years. And the success speaks for itself: Germany's oldest archaeological open-air museum, supported by a private association, attracts over 300,000 visitors annually. "We are one of the most successful museums in Germany," says Museum Director Gunter Schöbel. The extension, which was opened in June, was developed by a+r Architekten from Stuttgart and Tübingen. The highlight of the wooden building with nearly 1,300 square metres of usable floor area is an open roof truss with an expressive suspended frame construction made of laminated timber.

With the extension, the museum, which was founded in 1922, is preparing for the future. "Nowadays, it is important to offer guests an attractive and understandable experience when communicating history and to constantly consider what means can be used to achieve this in the best possible way, especially in the light of digital competition," explains Prof. Dr. Gunter Schöbel. For over 100 years, the museum has offered insights into 3,000 years of human history. In the open-air area, visitors can see 23 pile dwellings reconstructed to reflect the Stone and Bronze Ages. The new building houses a modern visitor centre and a new exhibition on the pile dwellings, which are a UNESCO World Heritage Site. The original remains of the pile dwellings are located underwater just a few metres from the museum. The design originated from a competition in 2018, in which our office won first place.

The nucleus of the design by a+r Architekten is the image of a dugout canoe from the Bronze Age, which is pulled ashore and turned over in winter, providing weather protection for objects stored underneath, such as tools. Using this metaphor, the architects developed a longhouse with a gabled roof that, like an overturned boat, protects the exhibits. a+r Architekten widened the house in the middle, where visitors enter from the reception annexe. At the generously glazed gable ends, the building narrows. This geometric trick twists the open roof structure, creating a

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fascinating symmetry in the interior. The wooden frames consist of laminated timber beams made from untreated local spruce, spaced 1.60 metres apart, with intersecting bracing. A gallery, suspended from the roof structure with steel rods, provides additional exhibition space.

# Understated and "simple" construction

The new building blends harmoniously into the surroundings of the small community of Uhldingen-Mühlhofen on Lake Constance. "The urban scale and roof shape echo the nearby buildings on the lakeside promenade," explains architect Alexander Lange, managing partner of a+r Architekten. "The new main entrance is prominently located and easily visible on the newly designed museum forecourt. On the lakeside, the building is slightly set back, so as not to dominate the reconstructed pile dwellings of the open-air museum. This also created a new, attractive outdoor area with a terrace by the lake."

Many components of the approximately 45-metre-long extension, mostly made from cross-laminated timber, were prefabricated, allowing for a short construction period of 18 months. The building was erected on 81 pile foundations that reach up to 20 metres into the lake bed. To visually match the façades to the up to 100-year-old pile dwellings of the museum, the longhouse and reception building were clad with pre-weathered square timber made from durable larch. The bronze-coloured window and opening casements blend harmoniously into the understated façade. The interior fitout is dominated by wood: a+r Architekten had the wall cladding made of silver fir, the ceilings are covered with wood acoustic panels, and the flooring on the gallery is made from darker industrial parquet. The bright flooring on the ground floor is made from polished screed with aggregates from the sandy lake bed, which visually blends well with the wooden ambiance.

The new museum building directly adjoins the existing structure on the west side, which houses all the building services and the newly designed sanitary rooms. This allowed the new exhibition hall by a+r Architekten to be executed in a low-tech construction method according to the "simple building" principle. The hall is supplied with sufficient daylight through generous skylights. For a positive energy effect of the entire museum, photovoltaic panels were added to the existing roof during the extension to provide self-sufficient power supply. A unique feature of the extension is that two public sewer lines run under the reception area. Therefore, the foyer was built with subordinate components that can be removed quickly if necessary.

#### Traces and mysteries of the pile dwellers

The building by a+r Architekten marks the new start of the visitor experience. "With an emotional and atmospheric spatial design, it sets the mood for the fascination of pile dwellings and simultaneously offers the space to deepen and discover what has been seen on the tour from new perspectives," explains Museum Director Gunter Schöbel. On the ground floor – in the exhibition area "Traces of the Pile Dwellers" – numerous original finds from Lake Constance can be discovered. Light installations create a wave effect on the floor, making it appear as if one is moving underwater. A replica of a dugout canoe floats at the level of the gallery and the light sculptures, separating the museum's mediation levels into an underwater and an above-water area. On the gallery – "above water" – the section "Mysteries of the Pile Dwellers"



presents the history of the Pfahlbaumuseum and new research findings. The exhibition concept, including the design of the display cases on the ground floor and the light installation, was developed by the Stuttgart-based office for communication in space, jangled nerves, in close collaboration with the museum's curators.

After viewing the original finds on the ground floor, visitors are guided to the Archaeorama, located in the existing building. In an impressive 360-degree multimedia show, museum guests are shown the underwater remains of the pile dwellings, which are part of the UNESCO World Heritage, and are given an idea of what life was like in the Stone and Bronze Ages on Lake Constance. The Archaeorama was originally put into operation in 2013 and was completely renovated as part of the extension. After the multimedia show, visitors are taken to the museum's open-air area with its reconstructions on the lake.

#### The next extension is already envisaged

As part of the competition entry, a+r Architekten already developed a second construction phase east of the current extension. As a mirrored twin, another exhibition hall is to be built there in the future, for example for special exhibitions. The building permit for the next extension has already been granted, but the museum, supported by an association, must first secure the funding. The future addition is already evident in the open space design, which was planned by a+r Architekten together with Planstatt Senner.

#### **Data and Facts**

Project: Extension of the Pfahlbaumuseum in Uhldingen-Mühlhofen Client: Verein für Pfahlbau- und Heimatkunde e.V., www.pfahlbauten.de

Architecture: a+r Architekten, Stuttgart/Tübingen, www.aplusr.de

Opening: June 2024

Construction time: November 2022 to May 2024

Outdoor facilities: Planstatt Senner Stuttgart, www.klima-umwelt-planstatt.de

Structural design: merz kley partner, Dornbirn, www.mkp-ing.com

Exhibition design and light installation: jn jangled nerves, Stuttgart, www.jn.de

GFA: 1,530 m2 GBV: 8.480 m3

Usable floor area: 1.274 m2 Photos: Werner Huthmacher

Stuttgart, July 2024

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- 1 The new extension by a+r Architekten for the Pfahlbaumuseum blends harmoniously into the surroundings of the small community of Uhldingen-Mühlhofen on Lake Constance. Photo: Werner Huthmacher
- 2 On the lakeside, the building is set back slightly so as not to dominate the replica pile dwellings of the open-air museum. This also creates a new, attractive outdoor area with a terrace by the lake. Photo: Werner Huthmacher
- **3** For over 100 years, the museum on Lake Constance has been offering insights into 3,000 years of human history. The new building by a+r Architekten now houses a modern visitor centre and a new exhibition on the UNESCO World Heritage Site of the pile dwellings. Photo: Werner Huthmacher
- **4** The building by a+r Architekten marks the new start of the visitor experience. "With an emotional and atmospheric spatial design, it sets the mood for the fascination of pile dwellings and simultaneously offers the space to deepen and discover what has been seen on the tour from new perspectives," explains Museum Director Gunter Schöbel. Photo: Werner Huthmacher









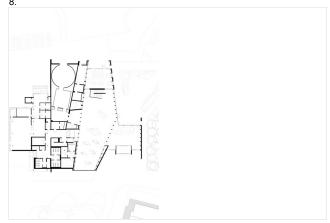


- **5** The open roof truss with its expressive laminated timber frame construction characterises the interior of the new Pfahlbaumuseum. Photo: Werner Huthmacher
- **6** To visually match the façades to the up to 100-year-old pile dwellings of the open-air museum, the longhouse and reception building were clad with pre-weathered square timber made from durable larch. Photo: Werner Huthmacher
- 7 Site plan of the extension to the Pfahlbaumuseum in Uhldingen-Mühlhofen, drawing: a+r Architekten
- 8 Ground floor plan of the extension to the Pfahlbaumuseum in Uhldingen-Mühlhofen, drawing: a+r Architekten



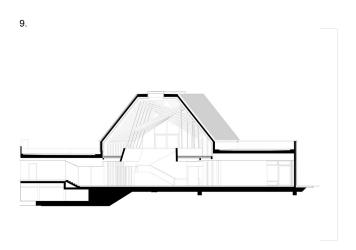








Section of the extension to the Pfahlbaumuseum in Uhldingen-Mühlhofen, drawing: a+r Architekten





### About a+r Architekten

a+r Architekten stand for solid, environmentally compatible and future-oriented architecture with impressive expertise in the field of sustainable building — also in existing building contexts. Founded in 1985 by Professor Gerd Ackermann and Professor Hellmut Raff, the office with branches in Stuttgart and Tübingen has around 100 employees and is today headed by Oliver Braun, Florian Gruner, Alexander Lange and Walter Fritz. a+r Architekten mainly build for public clients, industry and commerce, municipal housing companies and social institutions. The office focuses on appropriate, ecological, functional and the resulting innovative construction methods and has been awarded prestigious prizes for this approach.

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