



House of Bavarian History,
Regensburg; Architects:
wörner traxler richter
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planungsgesellschaft mbh,
Photo: Frank Blümner

Allplan in practice

HOUSE OF BAVARIAN HISTORY

A museum for world cultural heritage Regensburg's old town.

Every architect wants to build a museum – just like a church, a monastery or a striking bridge. But no matter which building he creates, whether of world fame or banal simplicity: as an architect, he always sets a sign, conveys a point of view and positions his interpretation of the building requirement in each of his buildings. This makes it all the more important for architects to be extremely conscious of the location, the building site and the existing buildings. Especially when they work in a protected area and in an environment additionally protected by UNESCO, for example. After all, they should not have the same fate as in the case of the Dresden Elbe Valley with

its controversial Waldschlösschenbrücke bridge: Revocation of World Heritage status and a return to the striking bridge.

Regensburg's old town has been a protected UNESCO world heritage site since 2006. Every stone behind the historic city walls breathes centuries of history. More than 1,000 individual monuments are included in the list of monuments of the „city on the four rivers“, as Regensburg is also called. For every architect who tackles something here, this means the greatest care and respect in dealing with the existing buildings. And the historical heritage.



View of the museum through the historic streets
© wörner traxler richter planungsgesellschaft mbh,
Photo: Frank Blümner

Nevertheless: the probably unique task of building the new „House of Bavarian History“ on the banks of the Danube in the middle of Regensburg's old town attracted more than 250 architectural firms. In 2013, the Frankfurt based architectural office wörner traxler richter emerged as the winner of a public, two-stage architectural competition held throughout Europe. And they were allowed to realize their design.

CAUTIOUSLY CLOSING OLD WOUNDS

The special urban planning situation at the former Hunnenplatz, where the museum now stands, challenged the Frankfurt architects. For the inhabitants of Regensburg, an old gaping wound was to be closed at this location: In the 1950s, a central traffic junction was planned here in the historic old town. More than 40 buildings in the immediate vicinity of today's museum had to make way back then. The project never came to fruition, but the houses on Hunnenplatz and eastern Georgenplatz had already been demolished by the mid-1960s.

wörner traxler judges recognized the significance of that place for the urban fabric that had grown up. They responded in their design by, among other things, taking up the roof lines from the surrounding houses and continuing them in the new building.

The play of the roof landscapes also refers to the heterogeneous neighbouring buildings that have grown over the centuries. The canon with its lively façade structure and ceramic surface creates a special quality of the museum: it is a monolithic solitaire that seeks concise urban and architectural references to the historically small-scale stock. And it finds it.

FUNCTIONAL ORIENTATION – CONTEMPORARY INTERPRETATION

The architects intensively studied the historical findings on site and are now recreating the lost Hunnenplatz in their building. The motif of the square, as a public space, carries their design. But despite reminiscences of the history of the place, contemporary and powerful architecture was created. Project manager Torsten Hassenbach: "The museum has a strong functional orientation. Nevertheless, we always wanted to build a sculptural building and not a simple house with readable floors and copied Regensburg motifs. The aim was to create a sculpture that fits in closely with its surroundings and interlocks with them. That was a great challenge." Stefan Traxler, one of the managing directors of wörner traxler richter and one of the designers adds: "architecture should take a stand. It should be serious. Architecture is not satire but built reality. We architects should therefore



Interior view: Foyer flooded with light © wörner traxler richter planungs-gesellschaft mbh, Photo: Frank Blümner

seriously deal with it and make a contribution from our time. But always with the necessary respect for what we find on site."

The contemporary interpretation of the historical city layout at Hunnenplatz sets new pathways in the quarter – without necessarily visiting the exhibition itself. For wörner traxler richter, the central, public hall in the building and the alleyway that runs through the museum building are important links between old and new. The fact that the Frankfurt architects are very attentive to linking building and location is also reflected in the facades. On the one hand they develop self-confidently and independently, but on the other hand they continue the eaves and scale of the surrounding buildings. Vertical, curtain-type ceramic elements lie over the building like a close-meshed net, connecting it and allowing it to be experienced as an overall structure.

COMPREHENSIVE COOPERATION AND MODEL-BASED PLANNING

The exhibition architecture and the museum concept were designed by the specialists HG Merz. The office has planned a number of museums, such as the Mercedes-Benz Museum in Stuttgart or the Richard Wagner Museum, Bayreuth. The collaboration between wörner traxler richter and HG Merz went smoothly. Even though the architec-

tural concept and the exhibition concept were by no means congruent at the beginning. For project manager Torsten Hassenbach, however, it proved to be a fruitful cooperation: "There are areas where we directly connected to the existing building. For example, certain exhibits could not be hung on the walls because of the low ceiling height. HG Merz then worked with us to reorganize and adapt the course of the exhibition. This is not possible without good cooperation.

The complex planning and the meticulously organized implementation on site meant open communication and perfect organization for all partners. A component-oriented planning approach can be the optimal solution for projects like the Haus der Bayerischen Geschichte. wörner traxler richter also relied on consistent modelling with their Allplan software and used the technical possibilities of the tool to optimise their own project processes. In addition, the planning model proved to be extremely helpful for dimensioning the complex steel roof construction. The structural engineer used the model and developed his structural analysis model from it.

The architects primarily generated floor plans and not sections or views from the building model, which had to do with the cubature. Torsten Hassenbach: "The views are complex because in



View of the elaborately designed slatted ceiling of the museum © wörner traxler richter planungs-gesellschaft mbh, Photo: Ralph Thimm

the museum there are practically no two surfaces running parallel to each other. And we were always faced with the question of whether to output surfaces that are geometrically a view or the addition of unfolding? Both seemed nonsensical to us. We wanted to bring it together in a drawing that could be used for presentation purposes as well as for planning work."

BIM ONLY BECOMES SUCCESSFUL WITH THE CLIENT

The use of the BIM planning methodology and component-oriented planning in Allplan is part of everyday life at wörner traxler richter, even though it was not used at the Haus der Bayerischen Geschichte. In ongoing projects, the architects rely on BIM for quantity and mass determination or for exchange with specialist project partners. The office has been working in 3D since 2003, since 2013 it has been component-oriented. The benefits, Stefan Traxler points out, must be communicated to the client. If the client requires BIM, for example because he wants to derive his operator model (FM model) from the building model, he must understand the process involved. The common planning culture in Germany has so far enabled building owners to also implement comprehensive changes at an advanced stage of the project without incurring costs. However, BIM requires early, binding decisions for smooth project execution. Otherwise, the effort involved in rescheduling is immense for project

PROJECT INFORMATION AT A GLANCE

- > **Focus:** Architecture, museum construction
- > **Software used:** Allplan Architecture
- > **Architect:** wörner traxler richter planungs-gesellschaft mbh
- > **Client:** Free State of Bavaria, represented by: State Building Authority Regensburg
- > **User:** House of Bavarian History in the Bavarian State Ministry of Sciences and Arts
- > **Service phases:** 1-6
- > **Costs:** approx. 88 Total gross € million
- > **Size:** NF Haus der Bayerischen Geschichte 5,100 m², NF Bavariathek 1,300 m²
- > **Competition announcement:** 2012
- > **Competition decision:** April 2013
- > **Start of construction:** März 2015
- > **Laying of the foundation stone:** May 2015
- > **Construction completion:** 2019

participants such as the architects or structural and technical designers - and unfortunately often unpaid. According to Stefan Traxler and Torsten Hassenbach in unison, however, this discipline is necessary in order to successfully establish BIM in the market and to reduce rather than increase the effort with the digital method.



"Allplan has become an integral part of our office. It is therefore important for us that ALLPLAN puts a lot of energy into its software and is at the forefront of the market together with us!"

Stefan Traxler, Managing Partner of
wörner traxler richter Switzerland gmbh

THE CLIENT

The office wörner traxler richter architekten was founded in 1971 in Frankfurt am Main. More than 160 employees work at three locations in Frankfurt, Dresden and Munich. The office has made an international name for itself in health and research construction. In addition, the firm is involved in

residential and hotel projects, museum and cultural buildings, urban planning concepts and the development of master plans. In addition to their engineering services, the architects offer their know-how in BIM as consultants and specialist planners.

ABOUT ALLPLAN

ALLPLAN is a global provider of BIM design software for the AEC industry. True to our "Design to Build" claim, we cover the entire process from the first concept to final detailed design for the construction site and for prefabrication. Allplan users create deliverables of the highest quality and level of detail thanks to lean workflows. ALLPLAN offers powerful integrated cloud technology to

support interdisciplinary collaboration on building and civil engineering projects. Around the world over 500 dedicated employees continue to write the ALLPLAN success story. Headquartered in Munich, Germany, ALLPLAN is part of the Nemetschek Group which is a pioneer for digital transformation in the construction sector.

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