

1924 Kesselschmiede Halle 180

2018 School of Architecture Halle 180 + Halle 189 + Halle 191

Kesselschmiede-Halle 180 was built in 1924 as a metal and welding workshop of the Sulzer AG in Winterthur, Switzerland. After 50 years of continuous expansion the site was closed in 1988 due to technological developments and economic conditions in the post-war period.

In 1990 the lack of space at the Department of Architecture at Winterthur Technical School of Engineering (TWI, today ZHAW) led to a study on the revitalization of vacant buildings, including Halle 180. Planned as a provisional interim solution to accommodate various functions of the department, a free-standing steel furniture was developed that also offered flexibility for later conversions.

The transformation of the single-function industrial building into a multipurpose university facility reveals the ambiguity of the hall's spatial resources and a functional indeterminacy inherent in the existing structure.

A hybrid unity of existing and new in dialog creates a composed collage by interlocking the elements that organize the generosity and openness of the existing hall and yet allow intimacy and privacy through vertical staggering, niches and a compact density of rooms. As a spatial gesture with an appellative value, the new steel structure invites to perceive the hall vertically, contrary to its existing longitudinal layout and promotes the performative act of diagonal ascent.

Visual connections and a floor plan with no walls, invented a new, innovative type of school known as the "curtain-school" (Vorhangschule), in contrast to the conventional typology of a "corridor school". Permanently ephemeral, the conversion exists as a resilient interim to this day. By preserving a processual character and enabling further adaptations through appropriation of the users and expansions in the following years (enlargement of the space, densification to the inside and addition of adjacent halls) Halle 180 became a showcase project and acted as a generator for further urban developments on site.

Drawings Chronology¹

1924 / 1991: During the conversion of the factory building into a school of architecture² a new steel structure was implemented in the long and narrow existing hall³. The analysis of structural conditions, building-physical requirements and reasons of historic preservation led to a freestanding steel-furniture consisting of four platforms, set off from the outer walls, creating a surrounding open access zone⁴. Planned as an interim and easy to dismantle structure, this cost-effective solution minimizes constructive points of contact with the existing shell⁵. Regarding spatial arrangement, the design follows a strategy of interconnecting the existing and the new by galleries and open platforms with flexible curtains instead of enclosing walls. The open structure hosts ateliers for 320 students, seminar rooms, lecture halls, the library and offices⁶.

1991 / 1997: In 1997 three additional axes of Halle 180 were acquired. A high room without additional fixtures offers space for various functions. The clear separation by the fire-wall provides zoning in the long room. While on north of the fire wall the hall features dense built-in structures, the space in the south uses the full room height and allows to experience the original spatial character of the factory building. In the conically widening area, additional enclosed rooms were placed that were similar to the original rooms. On top of these new seminar rooms, a gallery with atelier space overlooks the multifunctional hall. The adjacent open hall with crane runway was partly enclosed by a new façade with signage. The existing windows facing south were equipped with suspended metal elements for passive solar shading⁷.

1997 / 2003: In 2003 rooms on the ground floor of neighboring Halle 189+191 were used to house new functions for the school of architecture. Only small interventions were made to provide a multifunctional room, a cafeteria and an auditorium.

A new entrance was created, minimal wall paneling was added to improve the acoustics in the room, and bright refreshing colors were added. A new door enables direct connection to the main space in Halle 180⁸.

2003 / 2007: Densification of the inside: In the conically widening area a pavilion-like room was implemented. The ground floor space of the so-called Aquarium offers room for meetings, acoustically separated from the large hall. On top, an open gallery offers workspace for students. In contrast to the existing single-storey chambers, the layout of the new box, as a necessary reaction to structural requirements, does not touch the outer façade of the hall. Beams span between the existing lattice frame columns and the exterior wall. In the other part of the hall a depot is placed. The construction from 1997 was reinforced to add a new floor. Besides more storage space the room houses a material library and sample exhibition as well as more atelier space for students⁹.

2007 / 2018: Continuous adaptation and improvement became an integral part of the temporary interim solution – it was "learning by doing". The renovation of Halle 189+191 started in 2013 by gadolaringli architekten. A lecture room, additional classrooms, offices and workshops were created. The cafeteria was located below the silos. With only few interventions in the construction – two staircases, a new floor, and an attached balcony – new spatial connections were created. Only minimal and careful interventions were made; based on technical and comfort standards from comparable educational facilities Together with Halle 180, the whole complex forms an open network. An ensemble «as a small city» provides the opportunity to participate, to adapt and transform, which in return leads to maintenance and care for the buildings by its users¹⁰.

ZHAW School of Architecture Winterthur, Switzerland

1924: metal and welding workshop "Kesselschmiede – Halle 180"

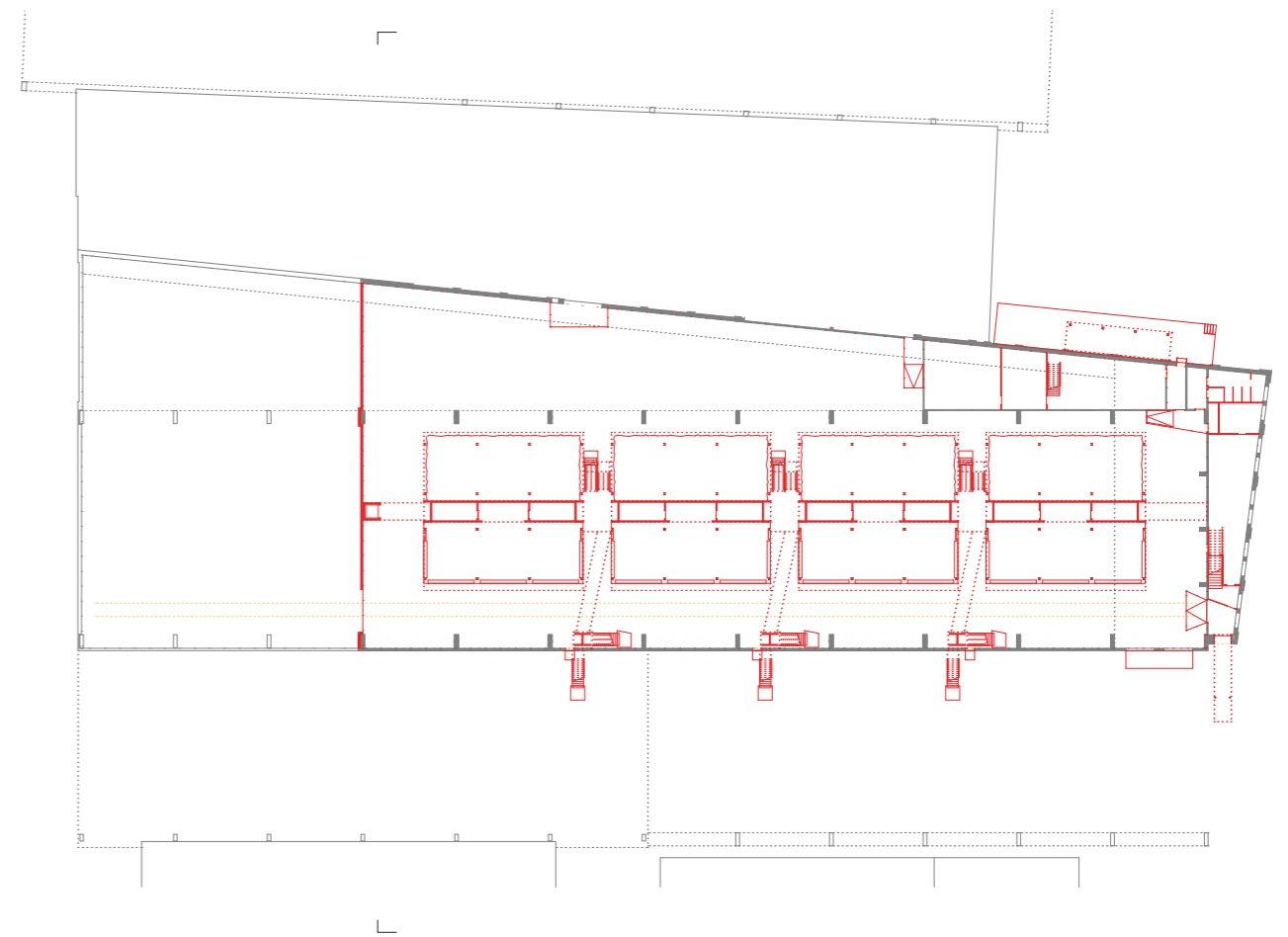
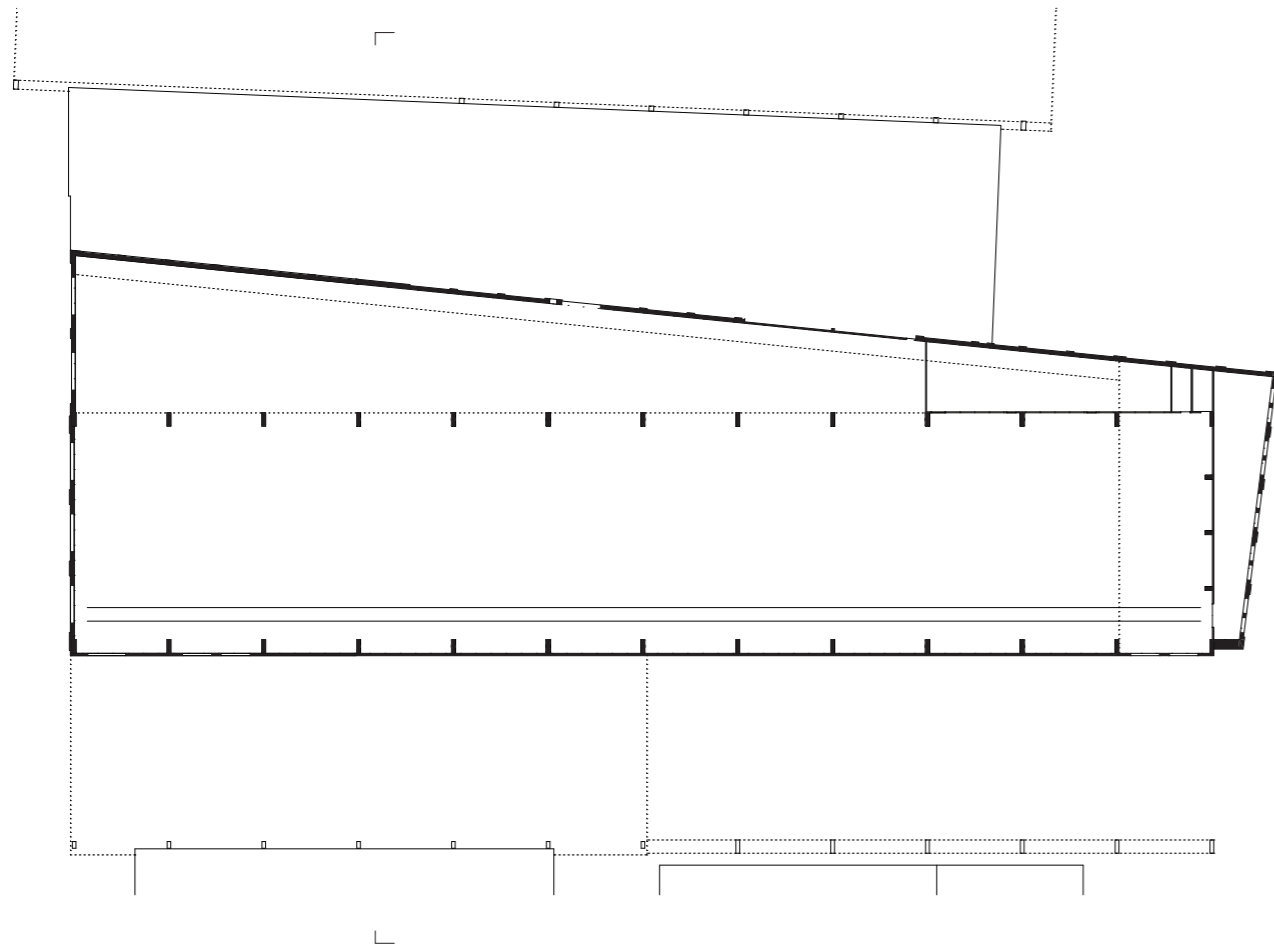
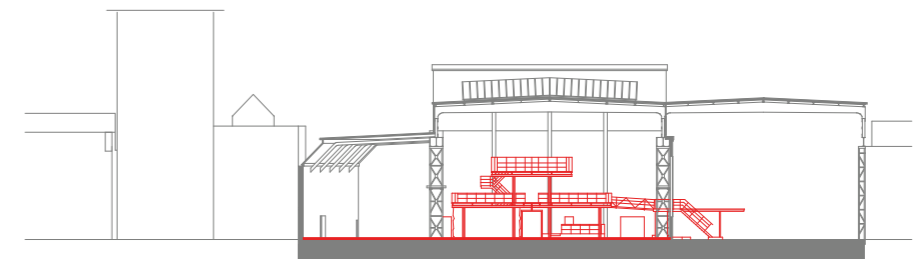
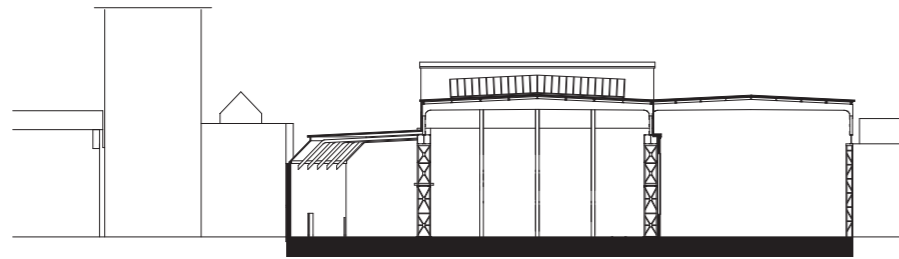
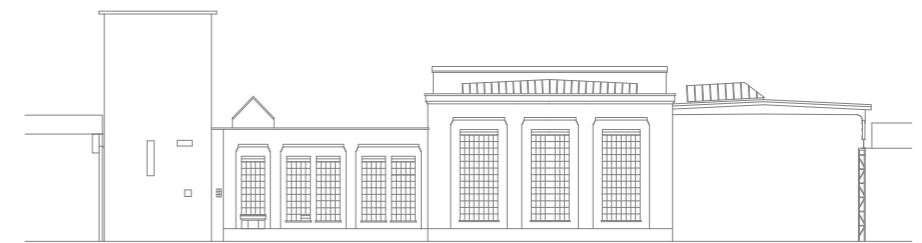
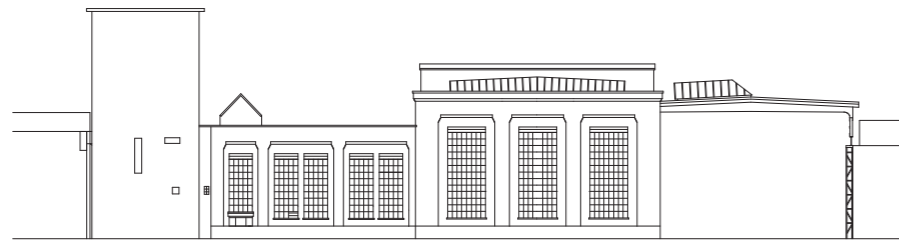
1991: school of architecture "Halle 180" – architect: Mäder+Mächler Architekten und Eppler Maraini Schoop

1997: multifunctional hall extension "Halle 180" – architect: Mäder+Mächler Architekten und Eppler Maraini Schoop

2003: extension "Halle 189 / 191" – architect: Mäder+Mächler Architekten

2007: space densification "Halle 180" – architect: Mäder+Mächler Architekten

2018: renovation project "Halle 189 / 191" – architect: gadolaringli architekto



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