

Silver

City

A former milk-processing factory in Zurich currently houses two universities, apartments and a museum. Swiss architecture firm EM2N was responsible for the conversion of the building.

Text
Katharina Marchal





↑ Winding its way past five floors is a concrete ramp that now serves as the building's vertical boulevard.
Photo Simon Menges



Zurich West is teeming with large-scale building projects. Recently completed hotels and office towers rise above the remains of industrial buildings and factories. The inauguration of the converted Löwenbräu Brewery occurred in early 2014. Occupying the new complex are a centre for contemporary art, offices and housing. Not far away is the Toni-Areal, a new city district that takes its name from the Toni milk-processing plant that once operated in this part of town – and which is now a university campus. Once again EM2N Architekten of Zurich has taken on an extraordinary and quite complicated conversion project and executed its design with bravura.

‘Demolition was neither economically nor ecologically advisable’

Nearly four decades ago, Toni – a well-known Swiss dairy brand – opened the doors of what was then Europe’s most modern milk- and yogurt-processing factory. Only 20 years later, however, overcapacity forced the company to close the plant, leaving the 27-hectare complex in need of a new function. The two-fold point of departure for its conversion comprised the location of the industrial building, in the western section of the city, and its framework, which was in good condition and did not require demolition. Canton architect Matthias Haag: ‘Besides the location, we were convinced that demolition was neither economically nor ecologically advisable because of the good architectural condition of the factory, the large dimensions and the high load level the frame was capable of maintaining.’

Glass jars of yogurt made from the fresh milk of Swiss cows no longer move along conveyor belts in the halls of the former factory. Since the summer semester of 2014, the enormous building has accommodated 5,000 students attending the Zurich University of the Arts (ZHdK) and part of the Zurich University of Applied Sciences (ZHAW). But not only students benefit from the new complex at the heart of Toni-Areal. With approximately 600 public events a year, including concerts and exhibitions, the educational and cultural hub provides Zurich West with a major meeting place for lovers of art, culture and design. What’s more, the 22-storey tower holds 100 apartments that both students and external tenants can rent.

The concept behind the conversion is based on the dimensions of a building whose total floor area is as large as an entire city district – and on the amalgamation of two universities in one place. Even during the preliminary research phase, EM2N approached the project first and foremost from the perspective of urban design and programmatic intervention, and only then as a work of architecture. ‘Our idea was to tackle the vast size of the project by thinking of it more or less in terms of urban planning,’ say partners Mathias Müller and Daniel Niggli. Determining the context of their urban plan was the building itself. They designated the existing concrete ramp, which winds its way past five floors of the building and once accommodated lorries, as a vertical boulevard.

‘As a counterpart to this important access route,’ their explanation continues, ‘we designed a large public entrance at the place where high-rise meets low-rise.’ With a layout like that of a city square, it is here that street-like corridors come from all directions and converge. Central vertical access is afforded by a large cascading stairway that rises for several storeys. ‘The cascade is the central element around which all rooms are arranged,’ says Niggli. Stairs in the entrance hall are about 8 m wide, inviting students to meet, talk or relax; on the fifth and sixth storeys, the stairs become tiered seating for exhibitions or performances held in the adjacent spaces.

‘In this “interior urbanism”, the cascading stairs form a kind of system of streets and squares, which define the individual districts and neighbourhoods,’ says Niggli in a special issue devoted to the building published by Swiss magazine *Hochparterre*. ‘The cascade provides public space for both universities and gives them an address. The analogy with the city is a bit banal but also quite strong and efficient.’

Confronted with the huge dimensions of the main volume of the complex – 90 x 170 m, eight storeys high – the architects had to design an interior with an easy-to-understand circulation system that students would not experience as a labyrinth. Five voids inserted into the existing volume

facilitate the user’s sense of orientation, allow daylight to enter the interiors, and ensure good sightlines and views of the outdoor environment. Orientation is also aided by signage designed by Zurich partnership Biv & Hi: Bringolf Irion Vögeli. Each storey has a number and each important element a capital letter, such as ‘T’ for ‘tower’. Various parts of the building branching out from the cascade stairs like the arteries of a heart bear the letters A to J.

Spatial challenges were matched by countless structural challenges – such as rooms to be inserted and floors to be fitted in or broken out – and the structure of the apartment tower needed reinforcement. The building’s existing skeleton proved to be a big advantage. The original factory design had a flexible, modular layout that enabled the replacement of old machines with new ones. To accommodate the tremendous depth of the building, EM2N applied a hierarchical method to the insertion of 1,400 new rooms, as well as objective criteria to the distribution of these rooms. ‘The dimensions of certain rooms, for example, correspond to those of the column grid,’ says Müller. ‘Most of those are on the upper storeys. Some rooms are more publicly accessible than others, and most of those are orientated towards the cascade. And many rooms don’t need daylight at all, so we put them at the middle of the building and on the lower storeys.’

Rooms that can do without daylight include a cinema that seats 135 and is used by film students from both universities; two rooms for chamber music; and three small auditoriums that seat from 104 to 416 music students. In one of the auditoriums, an organ takes pride of place against one wall, and the other three walls are clad in acoustic panelling in the form of gleaming black cushions. Throughout the building, the use of materials and lighting gives the various spaces a futuristic feel that’s both functional and industrial. The architects say that their treatment of the interior is a direct consequence of the building’s original function. ‘The industrial character of the interior, with many mechanical systems exposed, expresses our vision of the former milk factory. The coarse materialization was not, however, an aesthetic objective in itself; we wanted to create an open framework for the activities of the students and their teachers.’

Students are free to use the 3,700-m² archives of Zurich’s Museum of Design, which are in the basement of the building, where TL tubes and ceiling reflectors cast light on row after row of high metal shelves. The glazed wall of a meeting room on the nearby mezzanine level offers a glimpse into the open archives. The former drying tower of the milk factory now holds a ‘little three-storey cascade’ of stairs with green treads and steel handrails. Voids with skylights brighten functionally furnished workspaces at the middle of the building.

Visitors looking for a place to relax with refreshments have four options, among which a bistro at street level, next to the main entrance, where rows of simple wooden benches complement the focus of attention: a multifunctional piece of furniture that Bülsterli Hitz Architekten of Zurich calls a *Stammtisch*. Guests in the coffee bar, located in the entrance hall, sit on red-and-black bistro chairs beneath ‘asymmetric clusters of standard TL tubes’, as described by Realities:united, the Berlin artists’ collective that designed and made this ‘hybrid installation for lighting the main entrance’ of the ZHAW and the ZHdK. In grouping the objects, the artists aimed for an alternation of lighter and darker areas. In another excerpt from the aforementioned →

← article in *Hochparterre*, Niggli says: 'Artificial light in combination with daylight does not illuminate the interiors homogeneously, but irregularly. The result is a sequence of spaces that evoke, in terms of light, the heterogeneous atmosphere experienced on the streets of a city. Perceived as such, artificial light in this building gains a sense of volume and autonomy. If we had illuminated the entire building uniformly, the immensity of the complex would have been unbearable.'

The ZHdK occupies most of the 75,000 m² of available floor space; the ZHAW claims only about 15 per cent. The amalgamation of the two institutions was a challenge in itself, even before the question arose of how staff – from professors to caretakers – would put the new spaces to use. 'It's always difficult to start over from scratch,' says administrative director Matthias Schwarz. After all, the Toni-Areal meant not only a different way of working but also a different organization and use of space. In the new complex, nearly all available office space was designed as open-plan workplaces that would require the schools to develop a new work culture. 'To prepare for these big changes, we organized workshops well in advance of the relocation – to explore various layouts and different possibilities for partitioning the spaces,' says Hansuli Matter, director of ZHdK's design department, which formerly had 30 enclosed offices and now has two open-plan office landscapes.

The brief asked for a building that would make its thousands of users visible from the outside and that would make the building itself a central public destination. Open to the public are the MIZ, which is the media and information centre of the ZHdK, and the ZHAW library, which houses an extensive amount of printed and electronic media.

'We positioned the public functions on and along the ramp and gave each function its own entrance,' says Niggli. 'This made it possible to fulfil a programme that is independent of the universities, even late at night.' The resulting 'vertical cultural centre' or 'cultural boulevard' also includes the 2,600-m² roof terrace, or 'park', which can be reached from the tower and via an internal staircase in the foyer of one of the auditoriums. The park, 30 m above ground level, has several functions: it's a place for relaxation and/or study, a playground for children, and a promenade. The park provides both neighbourhood and campus with extra outdoor space.

Approaching the building, you are immediately struck by its distinctive façade, clad in undulating panels of metal mesh, a reference to the silver-coloured corrugated metal sheeting used on the milk factory and thus to the building's original industrial function. 'We enlarged those wavy contours to colossal proportions and added several storeys to the tower,' says Müller.

Rising above the horizontal mass of the complex, the tower is a landmark for the new Toni-Areal and its surroundings. Inside the tower, occupying a total area of 13,500 m², are 100 rental apartments ranging from one to five rooms, and lofts from the ninth to the 22nd floor. Occupants living high above the ground not only enjoy a unique view of Zurich but also profit from the proximity of the trendy neighbourhood, Werdinsel Island, and restored scenic areas along the River Limmat.

Bordering the complex on the south side is a railway viaduct and, at street level, a crisscross of tram rails and a motorway access ramp. The atmosphere could not be more urban. In keeping with the size of the building, an enormous stairway begins here and ends at the main entrance to the university complex. The visitor ascends, step by step, and when he walks into the building is immediately aware of being inside a little piece of Zurich – a city within a city. ←

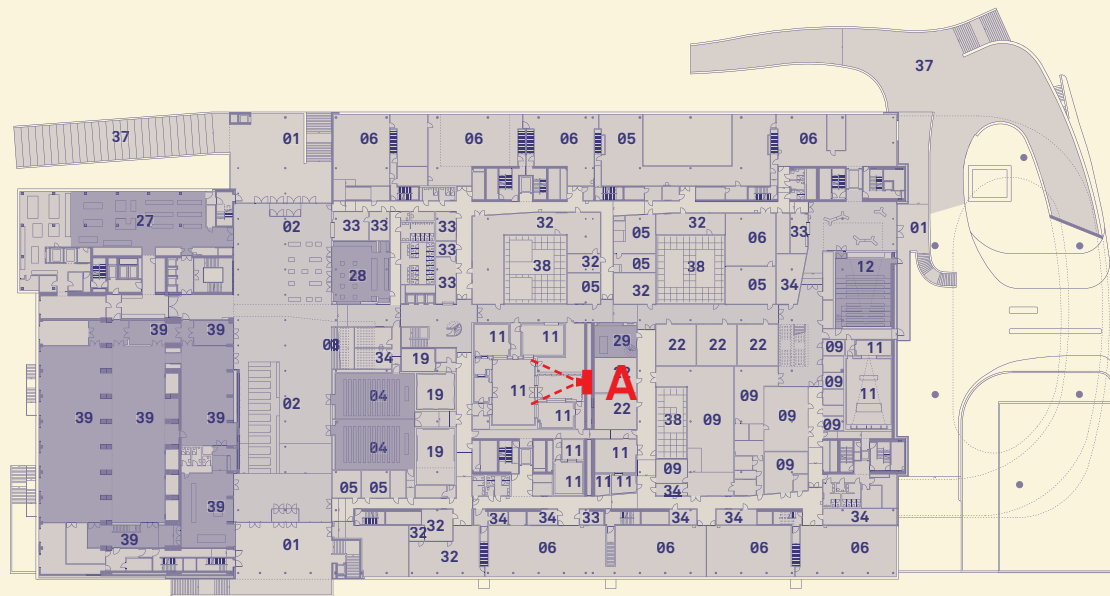
em2n.ch

↓ The clusters of TL tubes that Realities:united designed for the coffee bar feature an alternation of lighter and darker areas.
Photo Roger Frei

'Like a city square, the hall is a place where street-like corridors come from all directions and converge'



+1



- 01 Entrance
- 02 Hall
- 03 Cascade stairs
- 04 Lecture hall
- 05 General instruction
- 06 Workspace for students
- 07 Painting | drawing studio
- 08 Workshop 3D
- 09 Workshop 2D
- 10 Outdoor workspace
- 11 Sound | film studio
- 12 Film screening | lecture
- 13 Music instruction
- 14 Music practice room
- 15 Large auditorium | foyer
- 16 Small auditorium | foyer
- 17 Chamber-music room
- 18 Mehrspur' music club
- 19 Institute ICST
- 20 Dance instruction
- 21 Rehearsal stages | staging
- 22 IT instruction
- 23 IT infrastructure
- 24 Exhibition space
- 25 Lecturers' foyer
- 26 Students' foyer
- 27 Cafeteria
- 28 Bistro
- 29 Tea kitchen
- 30 Library and archives
- 31 Rector's office | services
- 32 Office | meeting space
- 33 Facility management
- 34 Storage | archives | lending
- 35 Children's daycare facilities
- 36 Rooftop promenade
- 37 Ramp | boulevard
- 38 Lightwell
- 39 Museum of Design archives
- 40 Apartments
- 41 Parking



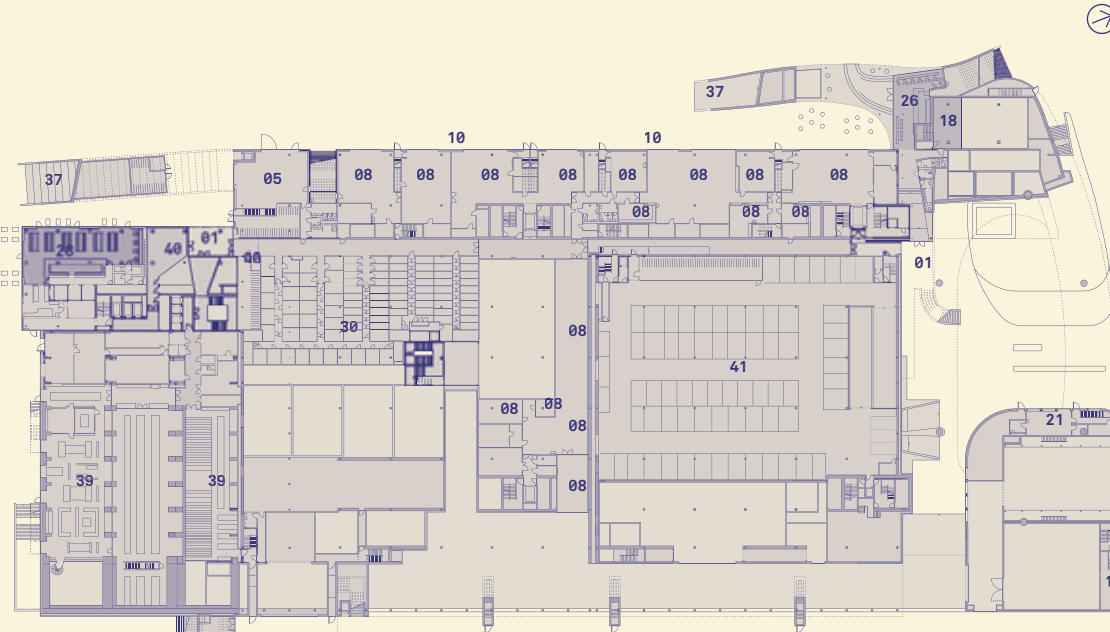
← Sound studios on the first floor have double glazing, which provides these spaces with sound isolation.
Photo Roger Frei

↓ Rows of high metal shelves hold the archives of Zurich's Museum of Design.
Photo Roger Frei

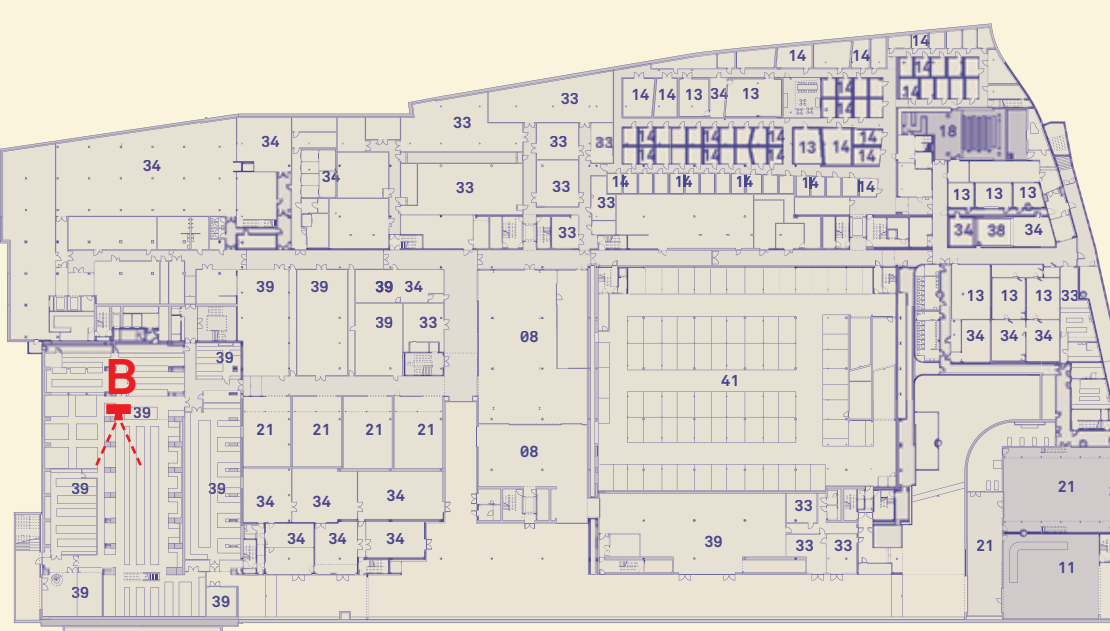
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'TL tubes cast light on row after row of high metal shelves'

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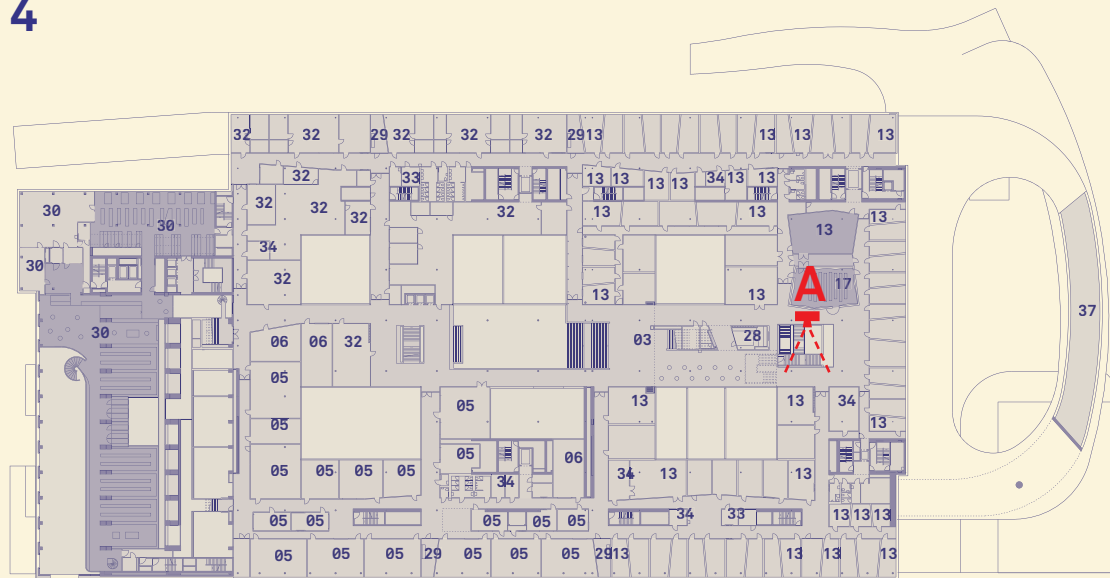
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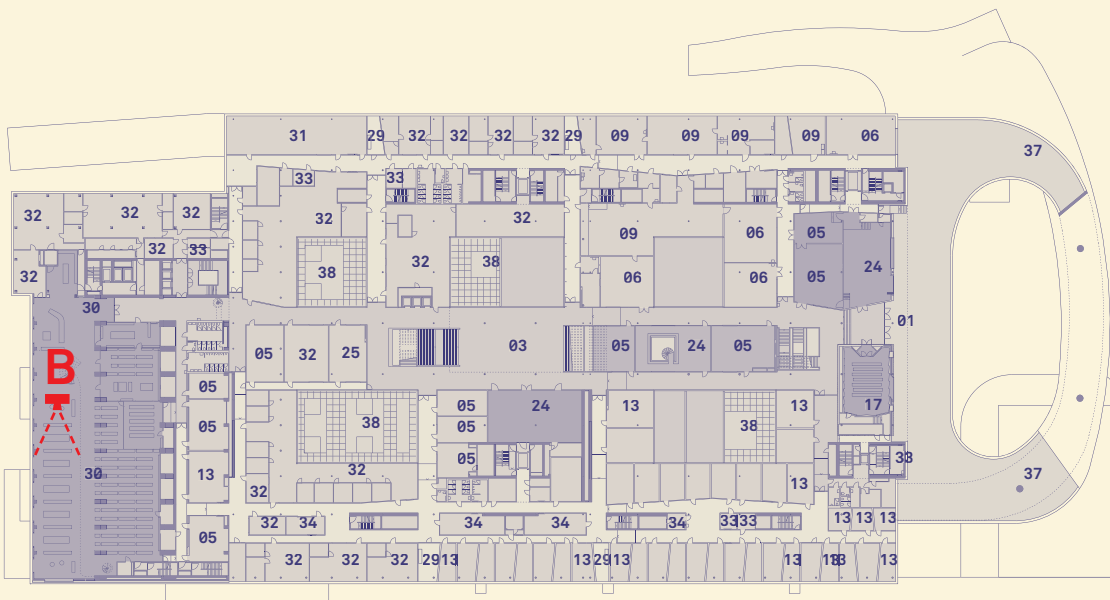


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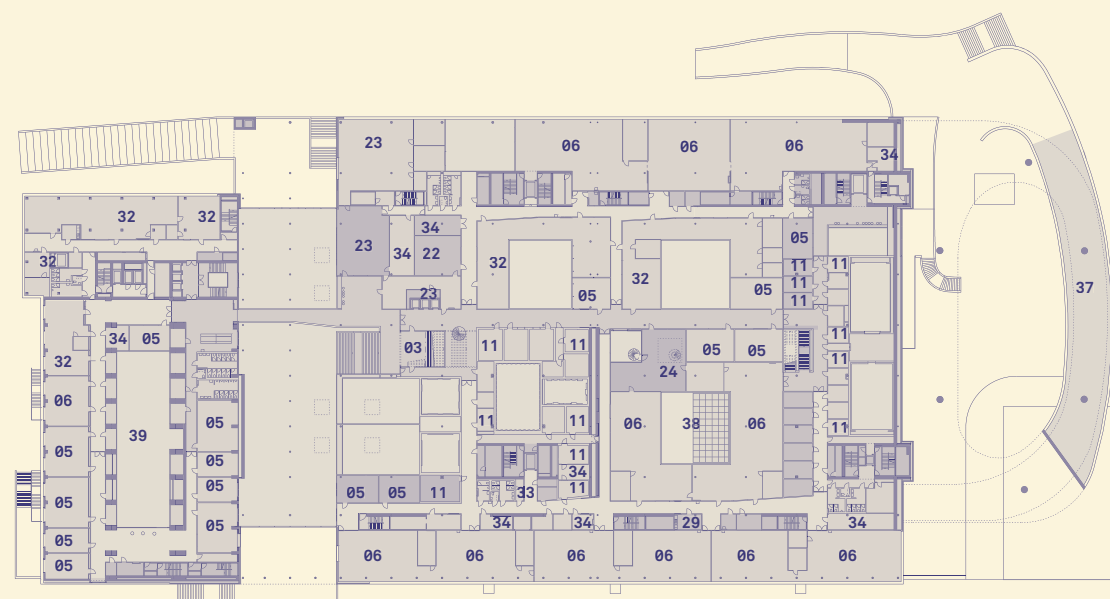
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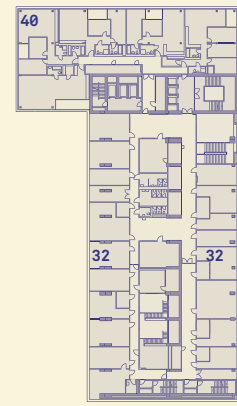


'The cascade is the central element around which all rooms are arranged'

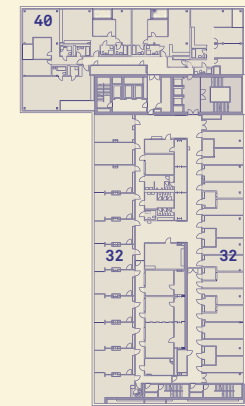
↑ Capital letters (here in a stairwell on the north side of the complex) designate important elements of the building.

← Star-shaped lighting objects illuminate the library on the third floor.

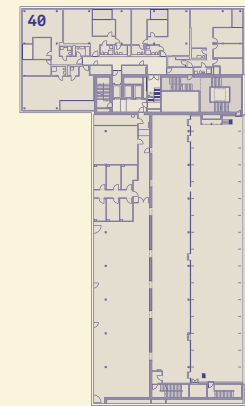
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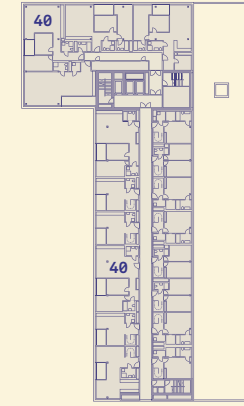
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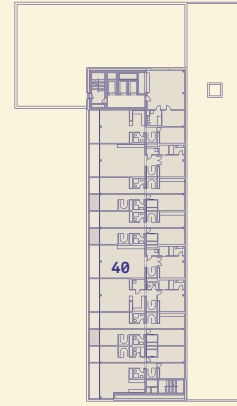
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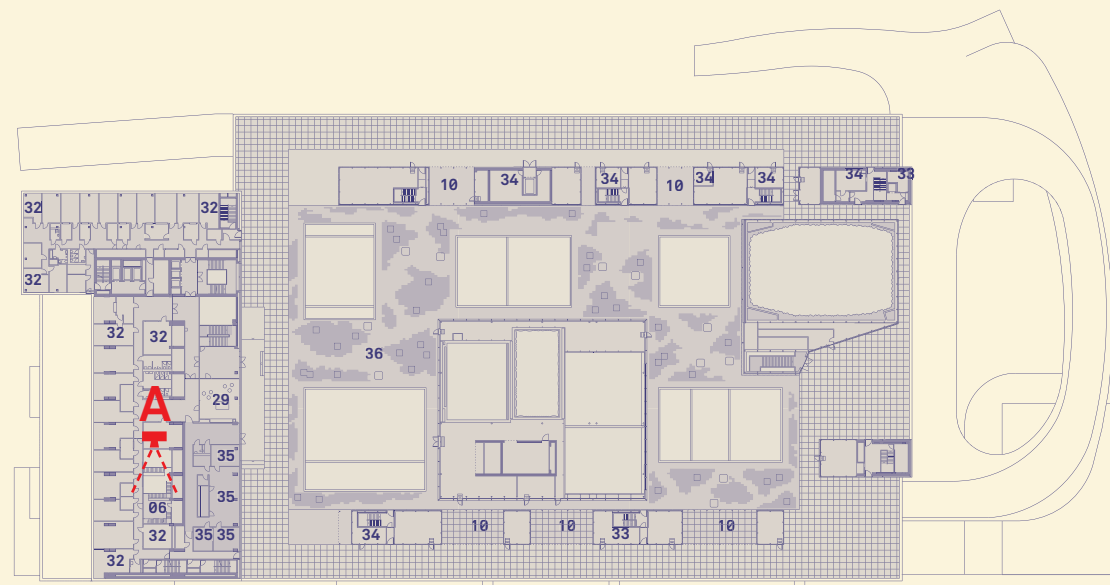


‘The use of materials gives the space a futuristic feel that’s both functional and industrial’

← The former drying tower of the milk factory now holds a ‘little three-storey cascade’ of stairs with green treads and steel handrails. Photo Roger Frei

↓ An organ nearly covers a wall of one of the two small auditoriums. Photo Simon Menges

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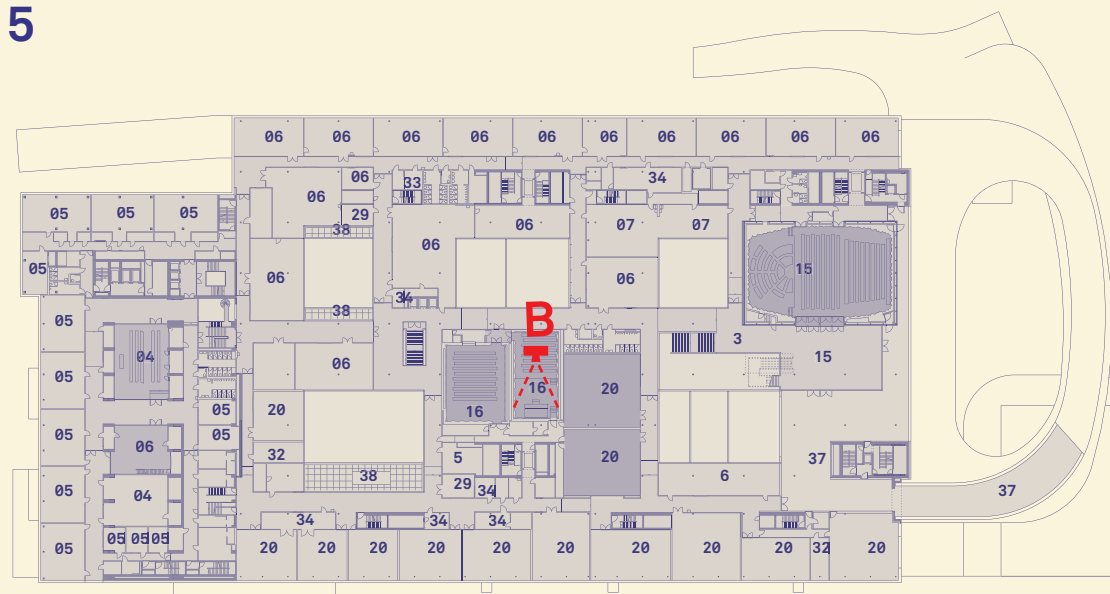


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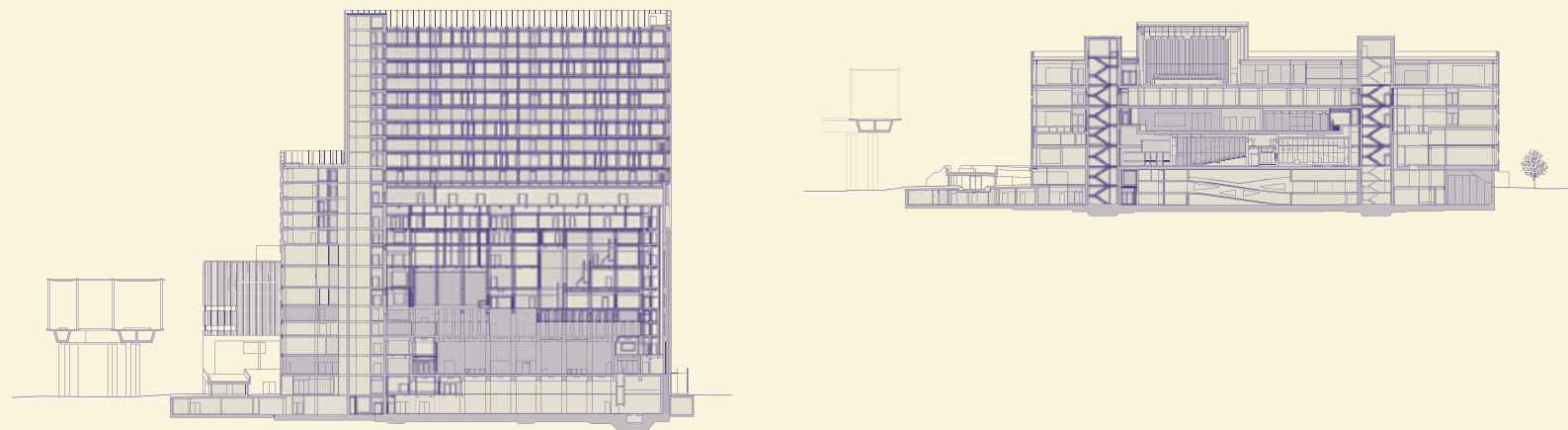
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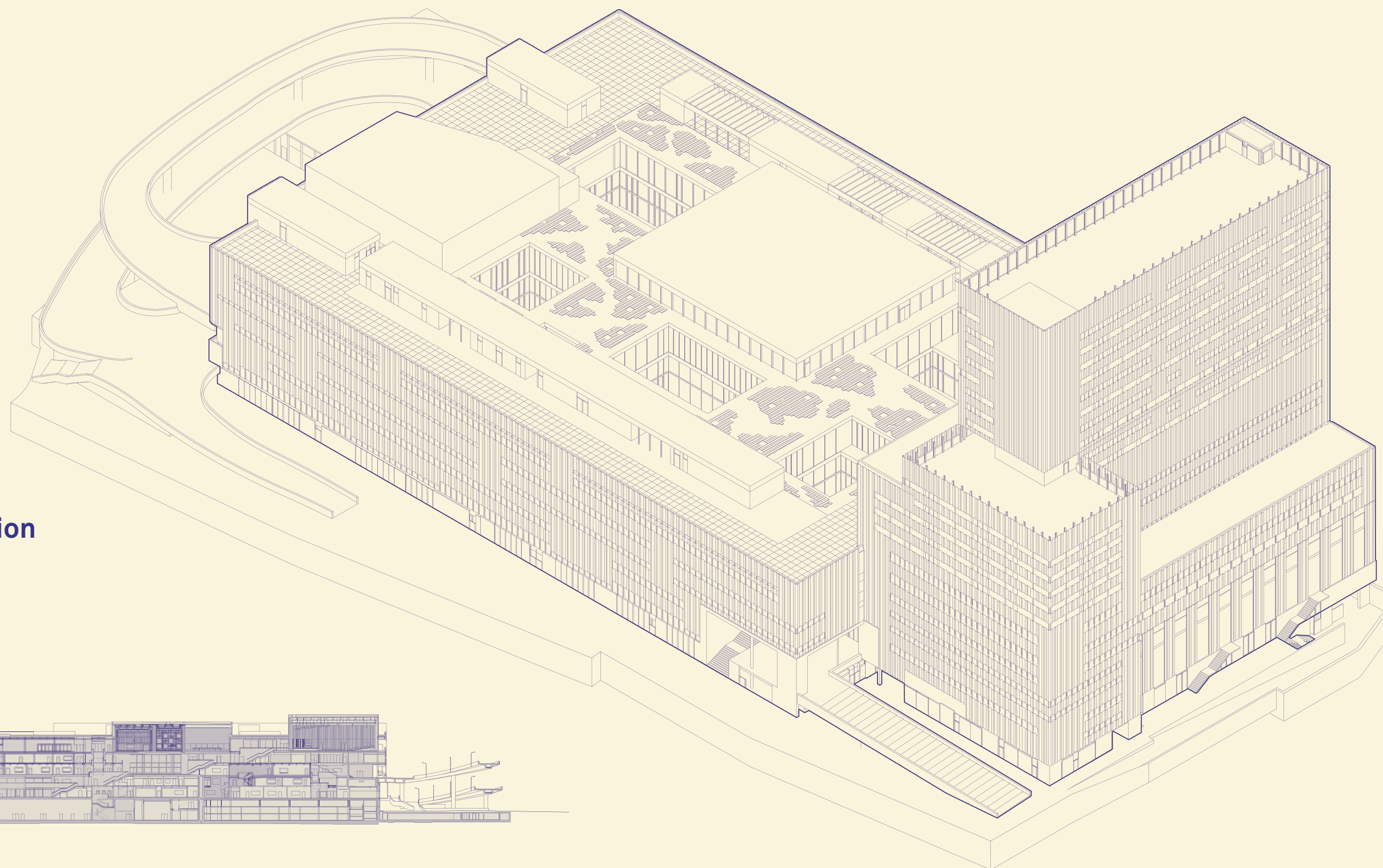
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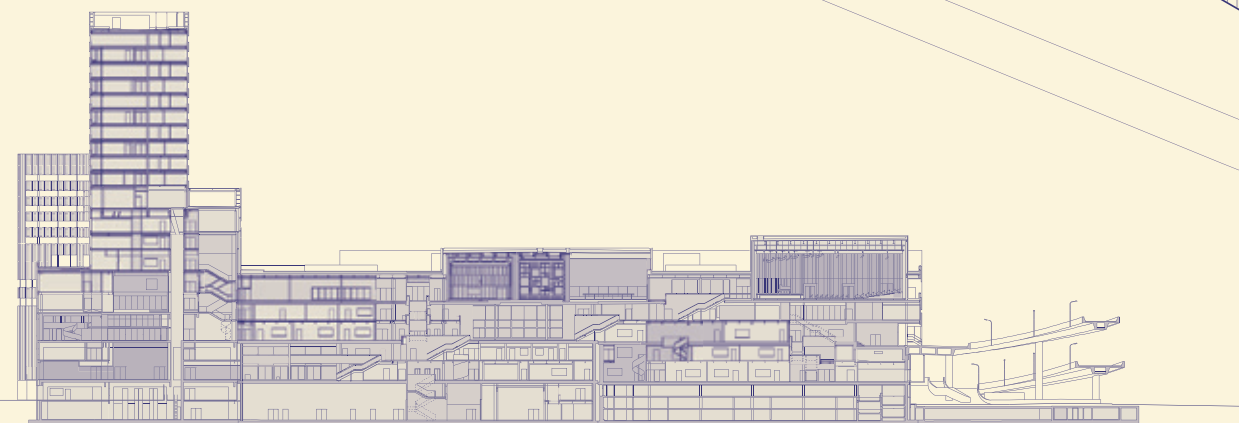
Cross Sections



'We tackled the vast size of the project from the perspective of urban design'



Long Section



Zurich West

Recent years have seen the explosive growth of Zurich West, a former industrial quarter and now one of the city's focal urban-development areas. Many old factories were demolished and replaced by new-build projects, but the finest among them have been preserved and repurposed. A good example of a project that combines renovation and new build is the Löwenbräu-Areal, since 2013 the site of galleries, housing and office buildings designed by Gigon Guyer Architekten and Atelier WW. Gigon Guyer was also responsible for the Prime Tower, which upon completion in 2011 became Switzerland's tallest building. With the inauguration of the new cultural centre that now occupies Schiffbau, a former shipbuilding factory, Zurich West can definitely call itself a full-fledged part of the city.



01 Toni-Areal | EM2N



02 Löwenbräu-Areal | Gigon Guyer Architekten and Atelier WW



03 Prime Tower | Gigon Guyer Architekten



04 Schiffbau Cultural Centre | Ortner & Ortner Baukunst