

## VIRIDITAS ANTE PORTAS – a new gate for Schwäbisch Gmünd

Viriditas (lat.) = verdure, vitality, vigour

Ante portas (lat.) = before the gates, on the way; also an expression for a direct existential necessity

### Project description

The project site is located in the Swabian town Schwäbisch Gmünd in Baden-Württemberg, Germany, lying to the west of the town centre and the town's railway station. It encompasses Lorcher Strasse and the adjoining commercial area.

Arriving by car from Stuttgart and leaving the federal street B29 at the exit Schwäbisch Gmünd Mitte the site is the first thing you see and therefore the town's western entrance. However, in its current state it does not live up to this designation. The zone is coloured by industrial sites to its west and one-storey car dealerships and workshops to its east. At its center are vast patches of wasteland, caused in part by the construction of the federal street's tunnel, and some small residential buildings. The area shows a high level of soil sealing and more strongly resembles an urban wasteland rather than an attractive entrance to the town.

Nevertheless, the project site also has significant potential thanks to its surrounding greenery, transport links, protected buildings, and places of interest. It is framed with the forested slopes of the Rems valley to the north and by the river Rems with its green banks to the south. However, there is no connection between those green spaces. Only a few walkways exist to connect Lorcher Strasse to the inaccessible river but there is no way to cross the railway tracks. On the other hand, the area lies just next to the railway station and the central bus station (ZOB) and is therefore situated right at Gmünd's main hub of public transportation, followed by the site of the former state garden show of 2014, Remspark and Stadtgarten, and the old town centre. Some important listed historic buildings on the project site like the Bifora building and the Zapp start-up centre, shape the area's image. In proximity one can find important institutions as well, like the youth education centre EULE, the pilgrimage church St. Salvator and several schools, colleges and institutes focusing amongst others on design and the research of precious metal.

Our design expands on these noteworthy potentials, creating a new, living quarter and a worthy entrance to the town of Schwäbisch Gmünd – one that promotes its unique identity. Our proposal has five focus points: 1. *Historically and Contextually Inspired Structure*, 2. *Green-Blue Connections*, 3. *Bike- and Pedestrian-Centred Mobility*, 4. *New Urban Productivity* and 5. *Mix and Live*.

#### 1. *Historically and Contextually Inspired Structure*

In search of Gmünd's very own character we noticed its well-preserved structure: an old medieval town core, encircled by a green ring where the walls used to be, followed by Wilhelminian-era villas and residential quarters from the 20<sup>th</sup> century. This archetypal structure is only disrupted by bigger buildings from the 70s and 80s, such as the Congress Centre or the senior residence St. Anna. Based on this observation, we created clusters with different structures and densities for the project site around Lorcher Strasse:

Beginning from the east side, close to the ZOB we planned a cluster of block structures that resembles the higher density of the town centre and incorporated existing buildings like the former Bifora clock factory. Closed towards the railway in the north, the blocks open towards the river Rems in the south and surround a square named *Westtorplatz*.

A green space towards the west divides the first cluster from the rest. Emphasized by three rows of trees on its eastern edge it forms a "green wall" and acts as quotation of the town walls and their

moats. This idea is based on the assumption that Gmünd had several walls limiting the town whilst growing: the first and second medieval town walls (12<sup>th</sup> and 15<sup>th</sup> century), the railway and rivers during the period of industrialisation (late 19<sup>th</sup> century) and the forested slopes of the valley surrounding it today. The gate to the town is accentuated by a tower that cuts through the green wall. It references the still existing medieval towers while following the modernist style like the Bifora building or works by Paul Bonatz. The tower is followed by the gate square, which acts as an urban prelude to the town itself.

Subsequently a layer of bigger structures that shape the edge of the green space consisting of the Zapp expansion cluster, the bus depot and the neighbourhood parking follow.

Beyond this layer and the railway, the structures get smaller and less dense, mediating the small scale of the Vogelhof quarter and the industrial zone expanding westwards.

## *2. Green-Blue Connections*

Our goal was to connect the new green spaces to the already existing ones. The largest of these is the "green wall", connecting the northern and southern slope of the Rems valley. It does so by adapting the existing sport areas in the southern Weststadt and extending them northwards where it first crosses the Rems. Then it underpasses the railway, using the existing difference in terrain height, to finally lead to the forests of Nepperberg. This expansion mainly transforms the patches of wasteland.

The town's name, Gmünd, derives from the many streams that flow into the Rems, which hints at the importance of water for the area. Continuing the development started by the state garden show of 2014, we ensure a more natural state of the river Rems throughout the site and beyond and give the space back to residents and visitors by making it accessible. A path along the river's edge, similar to the one on Josefsbach creek, starts in Remspark and is combined with a promenade on top of the embankment. There are new pedestrian bridges on strategic points that connect the two sides of the river and several additional places to cross it on water level, for example the recreation of the former ford just east of the Zapp building.

The Mühlbach, a today almost non-existent millstream, will be reactivated by cutting through the blocks, transforming the yards into little oasis. It then underpasses the neighbourhood parking and the bus depot to flow through our westernmost cluster and from there along Lorcher Strasse back into the Rems. The Mühlbach acts as landscape element but also as potential retention space to cope with heavy rainfall and to regulate infiltration. It might even be used to produce energy via small turbines or to power machines in the adjacent manufactories via a mill wheel.

Other retention areas are designated throughout the whole development using infiltration basins in green spaces and infiltration ditches underneath squares. Soil sealing is reduced to a minimum, where possible permeable paving combined with infiltration ditches are used.

## *3. Bike- and Pedestrian-Centred Mobility*

To reduce the traffic by car and create a pedestrian-friendly environment, the passage via Lorcher Strasse is transformed into a living street. The goal is to render the area from Zapp to ZOB unattractive for traffic. On the gate square, starting at the tower, the street has the form of a shared space. To make the area car-free, the smaller streets between the blocks are for pedestrians and bikes only, although there is an exception for delivery and emergency vehicles. On the western edge of the green wall is a neighbourhood parking with space for approximately 675 vehicles. This number could be expanded by adding two or three underground storeys. Additionally, there are two underground car parks beneath the Zapp expansion cluster and the Zeitwerk cluster. Commuters

and visitors can use P+R car parks at the federal street exit Schwäbisch Gmünd West, close to the Limes sites and Rotenbachtal or near the Bosch site where they have the possibility to change to bike or bus. There are also alternative routes to get to the town centre, for example via the exit Schwäbisch Gmünd West and Eutinghofer Strasse or by passing the tunnel and entering from the east.

The bike infrastructure is enhanced by creating two bike freeways that are wide enough to ensure one to two lanes for each direction and the use of cargo bikes. One runs north of and parallel to the railway, using existing walkways and roads like Hirschbrunnenweg that must be connected and adapted. It connects Gmünd to the other towns and cities in the Rems valley up to Stuttgart and Aalen. The other one uses the former Hohenstaufen railway that is already transformed into a bikeway until the southern bank of the river Rems. Our design envisages the rebuilding of the bridge over Rems and B29 and the creation of the missing link to the railway station, running parallel to the southern edge of the railways. The existing underpasses of Vogelhofstraße and Taubentalstraße as well as the new underpass of the "green wall" allow a connection between the two bike freeways. They are complemented by enhanced bike lanes and shared ways to reach the town centre.

The different networks are intertwined by a series of mobility points providing facilities like car parks, bike parks, bike sharing stations, bike rentals, charging/repair stations and bus stops. This will allow the change of mode of traveling according to one's needs. These stations are located strategically close to areas like the neighbourhood parking, P+R car parks or the ZOB. They shall motivate the different stakeholder of the quarter to shift their attention to more sustainable ways of transportation and to reduce the use of cars.

#### 4. *New Urban Productivity*

The green spaces are also productive spaces. They provide space for urban gardening and urban farming, based on the principles of community-supported agriculture (solidarische Landwirtschaft, SOLAWI). Additionally there are community green houses, like at St. Katharina, which becomes a little agricultural enclave ("*St. Katharina nel Verde*"). The keeping of animals is also imaginable, for example as natural lawn carer. There are small orchards, resembling the land use on the project site before industrialisation. Using a system of sponsorships (*Baum-Patenschaften*), private persons, companies or cooperatives care for the orchards and fruit trees along paths or streets. Additionally to the green spaces, also the rooftops become productive places, too, by the creation of green houses and roof gardens but also by using them to generate energy from wind and solar power. Also existing buildings can be adapted that way, the roof of the bus depot for example becomes a large aquaponics greenhouse producing plants, fish and, with the help of transparent solar panels, energy.

Productive businesses, especially small-scale factories or manufactories specialised in processing local resources and using local expertise are established along the railway and form a productive spine. From here, they have good access to the bike freeways to distribute their goods via cargo bike within Gmünd and to the neighbour communities. The proximity to the station allows them also to transport products to more distant towns and cities via train (e.g. by equipping already running passenger trains with freight compartments).

A circular economy is implemented, using existing potentials. The manufactories process the resources produced in the urban farming using machines produced by the nearby Bosch factory. Because of the local distribution and therefore short transport ways, simple packaging is used that is also produced in the nearby factories and is developed using the expertise of the design college and start-up centres. Consumers buy the products on the town's markets. The packaging, if reusable, goes back to the manufactories directly or via the markets. Waste is collected locally within the

clusters; biological waste becomes fertilizer for the urban farming, and metal goes to the Eurotech Foundry and so on. The industrial waste heat produced by Eurotech is used to heat the green houses and the rest of the quarter. Every building produces energy that powers the quarter or is fed to the town's grid. At the beginning, this circular system is implemented only locally but it can later spread and extend to the whole town of Gmünd.

### 5. *Mix and Live*

By bringing productive businesses back into town, the work also comes back and reduces commuting. Other uses like services, shops, gastronomy, offices, administration, colleges, creative economy, culture and living complement the quarter. These uses are mixed within the blocks as well as vertically within the buildings, making for vital ground floors, attracting different groups of people with different schedules and therefore creating motion and life all day long. The splitting and spreading of uses, e.g. the distribution of administration offices in the quarter rather than creating one administrative centre, creates pedestrian traffic within the quarter and provokes encounters that fill the public space with life. Giving the plots primarily to joint building ventures and housing cooperatives generates a social mix of people living in the new quarter.

There are a few special buildings serving public or cultural demands: the former Bifora hall at the eastern end of the square will act as urban catalyser and experimental playground for the development of the whole area. The tower on the western side, the "*KULTURM*", will provide different cultural uses like an open-air cinema, exhibition spaces and a lookout with a carillon made of metal using the local expertise and design. Along the river Rems, a cultural path is established, starting at the "*Forum Gold und Silber*" on the edge of the old town, leading via the Rococo Castle and the Congress Centre to the new *Dialogue Centre for Design and Science* at the eastern edge of the project site. This place serves as a platform to bring the residents and visitors, the creative and the scientific scene of Gmünd together. Following the new promenade, one reaches the *Remsbad*, an expansion of the existing Kneipp water-treading basins towards the river, and the adjoining *Holzklubus*, a wooden cube that provides gastronomy and a summer theatre. From there the *Zappa*, an existing cultural venue, is already visible through its modular tower, now well connected to the rest of the town via the promenade along the river and the new bridges.

The implementation of this ambitious plan can take place in several phases. At the core of the process is the *West Gate Story Society*, a public organisation supported by local government, science and associations that acts as manager of the development. It resides in the former Bifora-Hall, which will serve as an urban catalyser and experimental ground, providing space for workshops, congresses and seminars to design and develop the new quarter with the relevant stakeholders, future residents and neighbours.

Part of this process is the evaluation of the area's existing buildings and the generation of an inventory of the used materials within them. The possibility of integrating the buildings in the design of the new quarter will be discussed. If they cannot be integrated they will be dismantled and the elements and materials will be stored in the hall so that they can later be used to construct the new buildings. However, the hall will not just act as a storage for material, it will also be an experimental ground for circularity, recycling and upcycling, working together with the local colleges for design and the local industries. This way the quarter can become a showcase of circular constructions and therefore a role model for other urban development projects.