HÖRMANN Schörghuber

PORTAL 57

FUTURE

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EDITORIAL

Dear Readers,

Sepp Herberger, the famous German football coach, once coined the expression, "After the game is before the game". In other words: don't look back and regret missed (goal) opportunities, but rather focus on the future. And this doesn't only apply to football. Looking at the education system, "after the reform is before the reform". After all, school and education are ever-evolving topics and the prerequisite for any socio-political and economic future. In fact, school only became compulsory for everyone after industry required staff who could read, write and calculate. From the late 1960s, the German government then promoted higher qualification of the wider public with its "Advancement through Education" initiative, to create a brighter future for all. This resulted in new school buildings and even a dedicated Institute of school planning at the University of Stuttgart. The aim of the institute was to research and teach design principles for successful education buildings. The institute has long since ceased to exist, and after the 1970s, schools and the focus of education policy changed. What had been a forward-looking offense turned, at best, into a defence. In his contribution to this PORTAL, Thomas Heinle and his co-author Olivia Al-Hadry provide a comprehensive overview of what the architectural past and future look like for school buildings. Considering the outcome of the PISA analysis and the latest PIRLS reading study, the future of education is looking rather bleak. The school system in Germany seems to be under permanent construction – quite literally. In Berlin, sports halls are supposed to be built continuously according to an identical model. We're showing you one of the halls, but that's basically like showing all of them. In Zurich, the Greencity site continues to be developed. It is a pioneering district whose ecological approach extends far into the form of future cohabitation, and demands a great deal of all those who want to live here. Part of this forward-looking concept is a school, which we will also present to you in this PORTAL issue. And in the Swabian town of Freiberg am Neckar, the Oscar Paret School is even becoming a catalyst for urban redevelopment as the first component of the future Freiberg town. Everywhere you look, it's all about the future, and Frankfurt is no exception. At the headquarters of the DFB (German Football Association), an entire football school, the "DFB Academy" is dedicated to young talent. Sepp Herberger's successors have taken the World Cup coach's wisdom to heart: after the World Cup is before the next European Championship – and the DFB Academy offers the perfect conditions for the continuous development of athletes. We hope you enjoy reading this issue of PORTAL.

Christoph Hörmann | Thomas J. Hörmann | Martin J. Hörmann

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IMPRINT

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Synonymous with progressive school construction: Ørestad Gymnasium in Copenhagen.

ABOUT THE TOPIC: FUTURE

PLURALISM

MAKING THE CASE FOR A CUSTOMISED APPROACH TO SCHOOL CONSTRUCTION USING BERLIN AS AN EXAMPLE, BY THOMAS HEINLE WITH OLIVIA AL-HADRY

With a great deal of commitment and broad support, the Berlin School Construction Offensive (BSO) was launched in 2016 with the aim of designing "learning spaces that not only enable highly diverse, differentiated learning situations [...] but also provoke them". Politicians, architects, urban planners, education experts and many other experts as well as student and teacher representatives have contributed to the initiative. The resulting recommendations are ambitious, and there are high expectations. Along with Olivia Al-Hadry, Thomas Heinle writes about the current status and development and draws a conclusion.

The recommendations of the specialist working group on the quality of school environments (as of April 2017) state: "School construction and design always has an effect on education. New school buildings are intended to replace the traditional classroom school setup of the 19th century [...] and provide a meaningful all-day living and learning environment for children and young people. Transparency towards all indoor spaces including teachers' team rooms [...] establish a sense of connectedness. In future, schools should be an integrative part of the local education network, more so than before." This should be realised through an open architectural competition, in the shortest possible time and in the most cost-effective way. At least, this is the aspiration.

Unexpected parameters

Familiar conventional approaches are proposed to implement the initiative: the provision of modular supplementary buildings (so-called MEBs), the conventional expansion of existing sites, the reactivation of former school buildings, organisational measures and, among others, 30 new buildings. As part of its pilot project to speed up school construction, the Berlin Senate has already listed ten of the planned measures under the heading "fast-track schools". The initial aim was to invest more than 550 million euros in schools in the medium term. Between 2016 and 2021, spending has increased steadily. In 2021, the Senate decided to make 700 million euros available because of unexpected parameters such as the Corona pandemic and the war in Ukraine. Demands and costs are restricted. The various school systems in all districts can claim the same privilege, independently of their social or financial situation. This aspect is essential to ensuring equal opportunities for young people.

Justified doubts?

The HOWOGE housing association plays an important part in the BSO. It oversees 28 of the projects to date, including 13 refurbishments and 15 new buildings. This promises short decision-making processes and design phases, which is particularly attractive from an economic perspective. The approach focuses on modular construction methods that aim to provide fast solutions. But these types of buildings polarise opinions: are they aesthetically pleasing and functional, or just a means to an end? Users will experience the quality of the space every day. They will sense the attitude and authenticity of the architecture, whether consciously or subconsciously. Can this type of model construction fulfil the high expectations of a client commissioning 28 schools without becoming too uniform?

The essence of architecture

The BSO works with universities to develop new, innovative perspectives and impulses through cross-generational cooperation. HOWOGE explains the criteria for the different projects: "To enable architects to design a building, they have to know what people are going to do in a building and how they will do it." – Wait a minute! Isn't this the essence of our work? Architecture means understanding the current state while visualising future scenarios. But how can we do this? To do so, we have to look at school construction in a larger context.

Learning from experience

Photo: Adam Mørk



The Ørestad-Gymnasium in Copenhagen was designed by 3XN and completed in 2005. It has been a shining example of innovative school buildings ever since.

Young people spend a large part of their day at schools and their early years are shaped by these spaces. Reflecting on our own time at school and that of others makes us realise just how much school architecture influences our own personality. Experiences range widely and are intimately connected with the respective school environment. It therefore makes sense to learn from the past: a look back at history illustrates the extent to which school education and architecture in Germany have changed over the years. It was not until 1919 that politicians in Germany attempted to guarantee education for all by establishing compulsory education. Lessons changed accordingly. For a long time, the school day was characterised by military harshness, which was also reflected in the typical Wilhelmine building style. School for all, but according to a strict regiment. During the two World Wars, education took a backseat or became a political instrument. Scope and desire for profound change only arose after the Second World War.

Humane building

heinlewischer also see history as the foundation on which we build today. The two founders of our architectural firm, Erwin Heinle and Robert Wischer, studied with the Stuttgart architect Prof. Günter Wilhelm. Wilhelm's inaugural speech as the successor to Prof. Paul Schmitthenner in Stuttgart went down in history as "Humane building". On an excursion to Germany, Richard Neutra viewed Günter Wilhelm as an architect whose work would influence the future of architecture in Europe. Fierce and straightforward, but new. The harsh regiment in schools is not part of his basic architectural principle. Günter Wilhelm is well known for his reformative school buildings and interdisciplinary work.

Building for the future

In the 1950s, architects, teachers, politicians and doctors demanded new and forward-looking learning environments. Learning from the past while building for the future. Clarity and economy of building resources. Those were the guiding principles of Prof. Wilhelm, and they are more relevant than ever. The teacher passed on his interest in progressive school buildings to his students – Erwin Heinle, Günter Behnisch, Harald Deilmann and many others. heinlewischer continues to be successful in the education sector to this day, designing and building nurseries, high schools, training and further education centres, university and college facilities. Always with the perennial question in mind: What does great architecture for education look like?

The third teacher

In the architectural work on educational facilities I have often noticed that aspirations and reality differ greatly. Everybody wants to achieve the same goal, but "the context just won't allow it". There's a lack of resources, or laws and standards don't allow it, or committees are too slow – the reasons for not challenging ourselves to the maximum are many. But they still exist, those "good schools". I've grown up in one of them. The Italian educator Loris Malaguzzi coined the influence of the environment on teaching and called it the "third teacher": A good school is transparent and protective at the same time. It entices communication and allows us to retreat. It fosters individuality as well as community and is as professional as it is spontaneous. Students and teachers identify with it. It offers free spaces and a wide variety of uses and connects people interested in learning as well as institutions. – In a nutshell, it is exactly the type of school that the BSO stated as their goal. My positive memories and those of my friends and colleagues of a good school are a mixture of objectively designed elements and individual associations. For example: Preparation rooms have generous proportions and foster curiosity. The music hall "is alive", it can grow and shrink. The assembly hall is a high, bright and airy space and encourages spontaneous encounters. The laboratories and workshops are professional and equipped with rising stalls: For me, Hans Bregler's Eberhard-Ludwigs-Gymnasium in Stuttgart, built in 1957 and awarded the Bonatz Prize, is a great example of good school architecture. Another great example is Silcherschule high school – also located in Stuttgart and designed by Prof. Günter Wilhelm.

Photos: Adam Mørk (left) / Hundven-Clements Photography (right)

The Borgafjellet primary school designed by LINK arkitektur features generous, open inside and outside spaces as well as environmentally friendly materials and design.

COMMENT: AMBITIOUS APPROACH

Ferdinand Horbat, Vice Chairman
Deutscher Philologenverband Berlin / Brandenburg e. V.

Dilapidated windows, mould, damage still left over from the wars, classrooms that are too small and too few, non-existent escape routes, insufficient infrastructure for contemporary teaching – these are all aspects that schools have to deal with. Of course, there are also new buildings. But do they always meet the educational needs and practical requirements? While participation of stakeholders is often mentioned, is it actually being accomplished? The majority of schools are not subject to new construction measures, especially as there is hardly any land available for new school buildings in the city. For most students and their parents, as well as our colleagues, it is a question of renovating and maybe expanding existing buildings. This requires imaginative concepts, such as using the existing loft space in older school buildings. Regulations and bureaucracy must not unduly delay or prevent any building measures. For example, while the building preservation is an important task of our society, it must not question the actual purpose of a building. We need to find viable compromises between the preservation of historical monuments and the fundamental right to education. For both students and employees, it is important to what extent the requirements of modern teaching are met by appropriate workplaces, buildings and infrastructure. A substantially faster implementation of building measures is equally important. Berlin's new coalition has recognised the importance of school building measures and presented an ambitious approach in its coalition agreement. In addition to other measures, they aim to make administration more efficient by appointing a Permanent Secretary for School Construction and School Digitisation.

COMMENT: OPTIMISED PROCEDURE

Norman Heise, Chairman
of the Berlin Parents Association

Berlin urgently needs more school places. These are being created through a mixture of modular supplementary buildings (so-called MEBs) and compartment schools (the Berlin learning and team houses). MEBs offer quick solutions for the required school spaces, but also create new issues: schoolyards become smaller, there is a lack of specialist rooms, and most MEBs still have a traditional classroom school setup. Nevertheless, changing from a school needing urgent repairs to an MEB feels like entering a new world. Nowadays, some MEBs have a timber construction with a pleasant atmosphere and minimal compartment elements. Compartment schools, i.e. many small schools in a big school, are the result of a group of experts with over 90 participants from the education, politics and administration sectors. Munich served as a role model here. Some of these schools are currently under construction, while two primary schools are nearing completion. A competition was held for these schools to create several three- and four-form entry schools of the same type. Competitions are also held for secondary schools at nearly all locations. Initial viewings of the schools under construction are favourable, promising a new quality of education and teaching and learning possibilities that accommodate the different types of learners better than traditional classroom school setups. A positive aspect of renovation measures are the participatory processes, involving school communities and reimagining the school. Unfortunately, tensions often arise with conservation agencies. As a result, it is often not possible to implement modern concepts, leading to a conservation of the education of the last 100 years for the next 50 years. The hope for the future is optimised processes to drive faster construction of new schools. Despite increases in construction costs, there must be no compromise on quality.

Renderings: heinlewischer / portraits (right): heinlewischer

heinlewischer submitted the design for the Kirchheim Gymnasium near Munich, which is scheduled for completion in 2024.

The Eberhard-Ludwigs-Gymnasium in Stuttgart by Hans Bregler in 1957.

Photo (top): Eberhard-Ludwigs-Gymnasium school archives / photo (bottom): Konrad Zerbe for ERNST²

ERNST² has renovated the Silcherschule high school in Stuttgart.

2053

After the student revolts and the "education revolution", the 1970s brought about the fast creation of large-scale learning institutions, partially by building uniform structures to a specific type, which often suffered from being very anonymous. A lot can be derived from that time of the last school construction offensive. Today's social, climate, sustainability and economic objectives create complex requirements for building types. The aim is to create an "optimal" solution for the future. So how about going a step further, and then another one, and suddenly we're in the year 2053? It's the turn of generation zeta to start school. What will school as a space look like then? And how do we plan for it? "It is important for each and every teacher to work on developing their individual capacity for change because they will inevitably find themselves in different groups over time." Shouldn't this also apply to school architecture? Subsequent generations will develop ever faster and be defined by ever shorter periods.

Further development

Further development is the keyword. Democratic plurality and participation, artificial intelligence, new technologies, sustainability and inclusion are the defining standards of future generations. Time also plays an important role. Schools also have to provide scope for spare time. All-day schools and after-school activities will increasingly be part of daily life. Concentration, safety, communication, encounters, spontaneity and organisation are just some of the essential guidelines for capable school buildings. Matching today's need with this vision is a challenge. How can architecture meet this challenge?

Two own examples

At the high school in Kirchheim near Munich, heinlewischer has reinterpreted historically significant motifs such as the market square. This creates a large hall for the school that can be used for many purposes. This central hub, which fosters an atmosphere of togetherness while offering flexibility, is

Thomas Heinle
born in Stuttgart in 1961,
graduated with a degree in architecture from Biberach University of Applied Sciences in 1986. After three years at the Murphy / Jahn offices in Chicago and Frankfurt, Thomas Heinle decided to relocate to Dresden to set up an office as a partner of heinlewischer in 1993. In 2007, following the success in two international competitions, he set up the office in Breslau. His work focuses on designing research, school and university buildings. In writing this article, he was assisted by:

Olivia Al-Hadry
born in Kiel in 1995,
studied Scenography / Interior Design (Bachelor) until 2022 and then Spatial Strategies (Master) at the Muthesius Academy of Fine Arts in Kiel. Since 2022, she has been working for heinlewischer on projects including the renovation and new extension of the "Architecture Faculty of the Technical University of Dresden".
www.heinlewischer.de

Thomas Heinle

Olivia Al-Hadry

an open space that connects the floors vertically as well as the practical units horizontally. This results in a high level of transparency, an important factor in how architecture impacts teachers and students. This can be found in particular in international school architecture.
heinlewischer also implemented the principles of an educational school in the winning design for the Bertolt-Brecht-Gymnasium in Dresden. In addition to interior gardens, the pavilion-like timber construction and the efficient floor plan, the design is dedicated to the theme of sustainability. Spaces are divided according to their function, which is evident in the clear structure of the classrooms. These in turn provide space for future topics such as online teaching.

Scandinavia as a role model

Imagining, planning and building a school is a challenge. We don't know how we are going to teach, learn and build in 30 years' time. But we can assume that it will be a combination of people, nature, technology and architecture. In the education sector, the Scandinavian countries are currently viewed as Europe's avantgarde. Finland and Denmark are deemed the happiest countries and have very successful school systems. Their principle: High-performing schools are feel-good schools. Students, teachers and parents are actively involved in their design. They also incorporate interdisciplinary teams consisting of assistants, trainees, social workers, teachers, curators, school psychologists, support teachers and counsellors, speech therapists and doctors. The focus is on the children's wellbeing. This is reflected in architecture through the central element of transparency, with flowing transitions between indoors and outdoors.

Individual and identifying

Good architecture, if it is individual enough, can help foster pupils' imagination and social engagement as pluralistic and democratic thinking and acting citizens. It is quite obvious that modular, uniform buildings do not reflect our pluralistic society. While there are some good examples of uniform building structures, most limit identification and flexibility to a high degree. The creation of individual types of spaces with a different educational focus is difficult or even impossible.
If we want to continue the 19th century tradition of building sustainable schools that will be used for a long time, we will have to create large, open, free environments. Students feel good in and about their schools if they identify with them on an individual level that differentiates, allows for differences and reflects diversity.

Interdisciplinary teamwork

Instead of focusing on short planning periods, the emphasis should be on developing an individual design in a careful team effort. And rather than a uniform approach, there should be a high level of differentiation and diversity. All this requires time and money. Time that we had but let slip by. Money that we have but shouldn't invest in mass-produced uniformity. While the price is high now, it can be tolerated if we look at our long-term goals and future generations do a better job than we did between 1990 and 2010 in terms of investing in the education of our children. Since the boom in the 1970s there hasn't been much investment in building schools in Germany. We now try to compensate for the lack of investment to the detriment of high-quality architecture. This is not a sustainable aproach.
Let's imagine we could realise the type of high-quality school defined in the Berlin School Construction Offensive. And that we could combine good organisation and well thought-out design concepts to actually achieve all the formulated goals in the long term. Just think of the progress and long-term added value our society could gain! This goal is worth all our efforts and patience.

BALL ACADEMY

DFB CAMPUS IN FRANKFURT AM MAIN
BY KADAWITTFELDARCHITEKTUR

Transparent facades and an inviting forecourt design characterise the DFB campus.

German football now has a world-class academy: with a high-end architectural design and almost 50000 square metres in size. The DFB Academy of the German Football Association in Frankfurt am Main focuses on the game of football day in, day out.

When the DFB Academy opened its doors in the summer of 2022, it kicked off a new phase in German football. The German Football Association had ordered a large-scale building with a sophisticated architecture in 2015. The architectural competition was won by kadawittfeldarchitektur who created a true football town. Originally, the plan was to build the project right next to the Frankfurt Waldstadion, the home of the local Eintracht Frankfurt Bundesliga club. However, a much better opportunity then arose to the north of this location, closer to the inner city. The extensive area of the former racecourse on the edge of Frankfurt's municipal forest became available and could be used as a new, generously dimensioned site for the DFB Academy campus.

Contrasts

Seen from above, you can still recognise the racecourse with its two characteristic, differently curved hairpin bends. The DFB football pitches and buildings now occupy the southern half of the former racecourse. A Chinese hotel project, not yet in operation, with details probably intended to resemble a pagoda, occupies the western part. This direct proximity of two projects whose architecture could hardly be more different only makes the quality of the DFB campus design even more apparent. Because if it weren't for the perfectly manicured football pitches on the north side of the buildings, the DFB building could also pass for the site of a "hip" new economy corporation, both from the outside and the inside. However, highly professional ball training requires more than a single training pitch.

Everything under a single roof

In addition to the natural grass pitches, there is also an impressive indoor football pitch. Dribbling and passing can be trained here 365 days a year. At the far end of the development axis, the so-called "boulevard" is the "tactics building". In-between, you will find a tech lab, a media centre, training and seminar rooms, outpatient clinics, catering, a multi-purpose hall, overnight accommodation including communal living quarters for the training guests – and of course lots of offices. The inside of this small football metropolis has a purposefully heterogenous design. A wide range of "town" squares line the boulevard. They offer spaces for communication and feature large glass surfaces that guide the view towards the football pitches in front of the building.

Shining example

The most varied, high-quality materials on all surfaces epitomise the client's high architectural aspirations, and a "sky" of triangular plasterboard panels arches above everything. All elements combined create a complete microcosm of German football. After all, the DFB Academy not only teaches the art of premier football, it also manages around seven million members in more than 24000 football clubs in all divisions. Built for training and education of footbal professionals, promising young talents, kicking kids and qualified referees, this football school is surely a shining example for the sometimes dilapidated state school landscape.

Successful interaction between inside and outside.

Various meeting points are located all around the building.

The foyer makes a grand open gesture: from here, the boulevard leads to the different functions of the campus.

The shapes associated with a football are used as design elements throughout. On the floor, it is the five corners of a classic football.

The administration area is no different from a normal, modern office.

The players' rooms are located along the boulevard ...

... and overlook the workplace: the football pitch.

A covered area with artificial grass and a small stand for visitors ensures optimal training conditions even in winter.

Hörmann expertise:
Tubular frame construction project doors and fire sliding doors

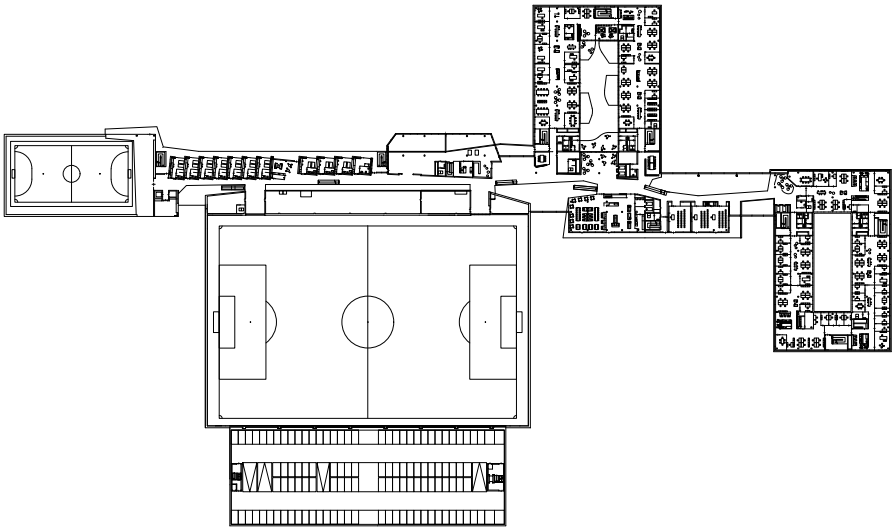
When an architectural design features a “boulevard”, it usually refers to a very long building that is accessed via such a “grand avenue”. As a natural consequence, this creates several fire zones that have to be separated. At the DFB campus, this is implemented by using tubular frame construction project doors with fixed glazing and fire sliding doors. Both products complement the elegant design. The T30 and T90 tubular frame construction project doors with fixed glazing are designed to match, creating a harmonious overall appearance. Due to the concealed hinges, the profiles are not interrupted by any exposed components. In contrast, the T30 and T90 fire sliding doors are concealed perfectly. They are a virtually invisible part of the room design and can only be identified by the narrow recess flaps that they hide behind. The doors close automatically in the event of a fire, but can still be passed through a wicket door and used as an escape route.

Normally only closes in case of a fire: one of the fire sliding doors.

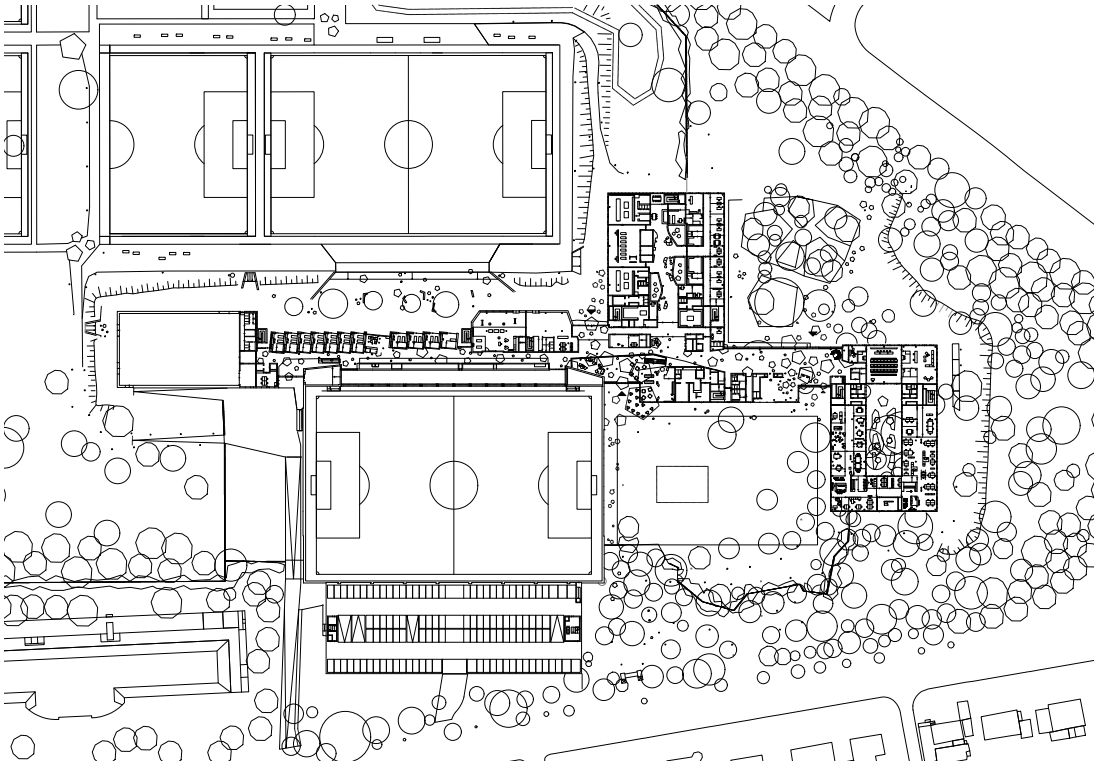
Steel tubular frame construction project doors with fixed glazing as side elements.

Full-surface, transparent tubular frame parts bring natural light into the building interior.

Location: Kennedyallee 274, Frankfurt, Germany
Building owner: Deutscher Fußballbund e. V., Frankfurt, Germany
Architect: kadawittfeldarchitektur, Aachen, Germany
Gross floor area: 57229.60 m²
Gross volume: 370189.93 m³
Completion: 2022
Photos: HG Esch, Hennef, Germany (pages 12 – 17) / Eduardo Perez, Frankfurt, Germany (page 17, bottom) / Klemme Fotografie, Herford, Germany (page 18)
Fabricator: Heinrich Kramwinkel, Mühlheim, Germany
Hörmann products: steel tubular frame construction project doors and fixed glazings HL 310, HL 320, HL 330, HL 910, HL 930, S / RS 100, 200, 300 (some in S-Line version, some with side element and transom light); single- and double-leaf fire sliding doors FST in T30 and T90 versions; single- and double-leaf steel construction project doors STS / STU in T30, T90 and MZ versions; single- and double-leaf steel construction project doors H3 OD (some in outside applications), H16 OD, D65 OD, D65 VM, D65 hatch; rolling grille DD, steel block frames, 2-part steel profile frames, steel corner frames, sports hall frames
Schörghuber products: T30 fire-rated / smoke-tight doors, composite timber doors, T30 fire-rated / smoke-tight door Rw 42 dB, smoke-tight doors, damp room doors, wet room doors, T90 fire-rated / smoke-tight / acoustic-rated doors Rw 32 dB and Rw 42 dB, acoustic-rated doors Rw 32, 37 and 42 dB, tubular chipboard doors, rebated frames



Standard floor layout



Floor plan of the ground floor

SCHOOL TOWN

OSCAR PARET SCHOOL IN FREIBERG
BY MVM+STARKE ARCHITEKTEN

The different areas of the school are colour-coded. Their meaning is explained on an information board in the canteen that also serves as an assembly hall.

The school years come right at the beginning of a biography. And in Freiberg, that's no different. By building the new Oscar Paret School as a "town within the town", the artificially created municipality dares to embark on a new urban path and lays the first building block of the new centre.

Don't worry if you're not familiar with the names of Beihingen, Geisingen and Heutingsheim. Decades ago, the three villages in Stuttgart's northern belt merged for economic reasons to form the completely new town of Freiberg. And the new town centre became a reflection of this new creation. Wisely built on a hill between the villages, it housed all the public facilities a community needs. This "town centre" became the quintessence of 1970s urban development – and is not entirely without charm. The buildings all have a somewhat reduced machine aesthetic, often combined with those flat roof edges angled at 45 degrees that were typical of the time. Freiberg's centre could easily be under a preservation order to protect it as an ensemble.

First building block

However, as the people of Freiberg have not warmed to their town centre, it is doomed. In 2010, it was deemed "no longer fit for the future". It's time for something new, and the new Oscar Paret comprehensive school is the first step. It is testimony to a completely different understanding of urban development and architecture based on a framework plan by the Stuttgart office of Aldinger Architekten. The mvm+starke Cologne office positioned the building with around 500 rooms for 1500 young people as the first building block and starting point for the desired sequence of squares intended to provide rhythm to the town centre.

When a town centre building is positioned on a hill, architects like to use the famous term "Stadtkrone", or City Crown, championed by the German architect Bruno Taut in the early part of the 20th century. And in Freiberg, that's no different. Of course, the term is only used as a metaphor here. After all, the expressionist architect wanted to create a city with an intellectual and artistic centre – a much wider scope than the concentration of public buildings in Freiberg.

A town within a town

The new school now has a market square and a boulevard, a "town hall" (school administration), learning houses and side streets leading to year clusters with their own squares or the specialist classroom wings. A colour system solves the inherent organisational complexity of a comprehensive school, while transparent walls, atriums and numerous glass doors create the open atmosphere required by an equally open society. Its size alone makes the school a "town within a town". Whether it will (again) become as integral a part of Freiberg's town centre as hoped remains to be seen. The introspective concept certainly promotes exchange among children from different school types. And the interaction with the town centre will follow along with the town's further development. On the town side, the school opens up with the classic architectural motif of the "cour d'honneur", complete with a flight of steps as an inviting gesture of welcome. At the rear, facing the A81, it becomes a sound barrier with atriums set into the topography and open spaces above the specialist classroom wing providing space for the school's free periods.

Statement

While the urban planning competition for the new town centre is still to come, the school has already driven an architectural stake into the Freiberg hill. The extremely tidy facades clad in light-coloured brickwork, the no less orderly building structures, indeed the entire well-structured complex will not make it easy for the new buildings to come. And whoever will design and build the other spikes of the future Freiberg City Crown … "the architectural bar is set high".

All form rooms and specialist classrooms are equipped with the latest technology.

Every so often, the corridors expand to include break rooms.

The yards include numerous seating options and offer space for play. They were designed by the landscape architects of club L94 Landschaftsarchitekten.

Schörghuber expertise: Fire-rated doors

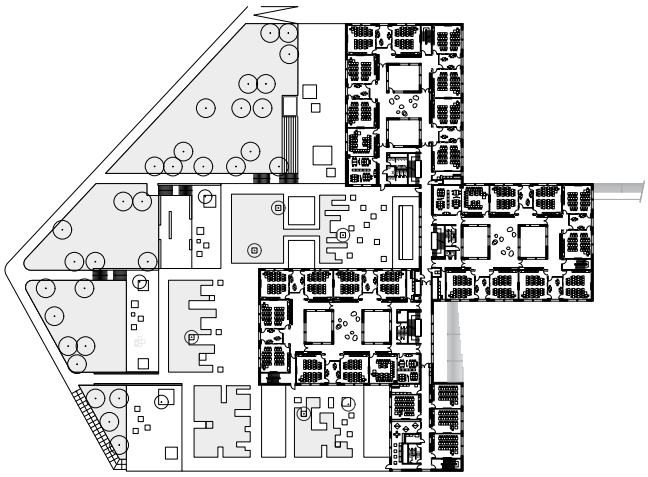
Next to hospitals, schools may well be the type of building where doors have to withstand the highest mechanical stress. This is no real surprise, as children and adolescents have other things on their minds than treating the doors with care. After all, doors really are just in their way. No wonder, then, that the durability of the doors was a key concern. All doors have a comfortable height of 2700 millimetres held by three to four hinges and come with a powder-coated steel frame. Most door leaves are 70 millimetres thick and have a sturdy, cast PU edge. Some doors also have a glazing cut-out. The glass is held by flush-fitting glazing beads, resulting in a smooth overall appearance. The fire-rated doors in the corridors are executed as double-leaf recessed doors and only close automatically in the event of a fire. The fire-rated doors in the stairwell are also double-leaf doors but come with an additional glazing cut-out.

Recessed doors separate the different fire zones and normally only close in the event of a fire. Recessed handles prevent obstruction in everyday life.

The double-leaf fire-rated doors in the corridor and stairwell also have glazing cut-outs.

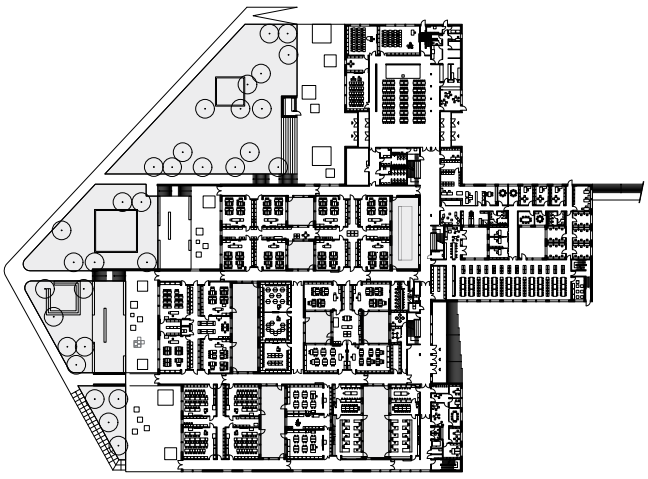
Location: Württemberger Straße 3, Freiberg, Germany
Building owner: Stadt Freiberg am Neckar, Germany
Architect: mvm+starke architekten, Cologne, Germany
Engineer: B+G Ingenieure Bollinger und Grohmann, Frankfurt, Germany
Landscape architects: club L94 Landschaftsarchitekten, Cologne, DE
Gross floor area: 20000 m²
Gross volume: 84000 m³
Construction costs: €75 million
Completion: 2022
Photos: Brigida González, Stuttgart, Germany (pages 20–23) / Stephan Falk, Berlin, Germany (page 24)
Processor: Rienth, Winnenden, Germany

Hörmann products: 7 high fire resistant visibility windows HW-190F, some with screen; 105 visibility windows with blind in the space between panes (FZR); 35 visibility windows as corner windows; 22 visibility windows HW-D-SD 1; 25 visibility windows HW-D-SD 2, 2-part sliding door steel profile frames, 2-part steel profile frames
Schörghuber products: T30 fire-rated / smoke-tight / acoustic-rated doors Rw = 32 dB, T90 fire-rated / smoke-tight / acoustic-rated door Rw = 37 dB, double-leaf recessed doors with T30 fire-rated / smoke-tight function, acoustic-rated sliding doors, acoustic-rated doors Rw = 37 dB, damp room doors, composite timber doors, Access acoustic-rated doors Rw = 42 dB (with single sealing in the frame), solid timber frames

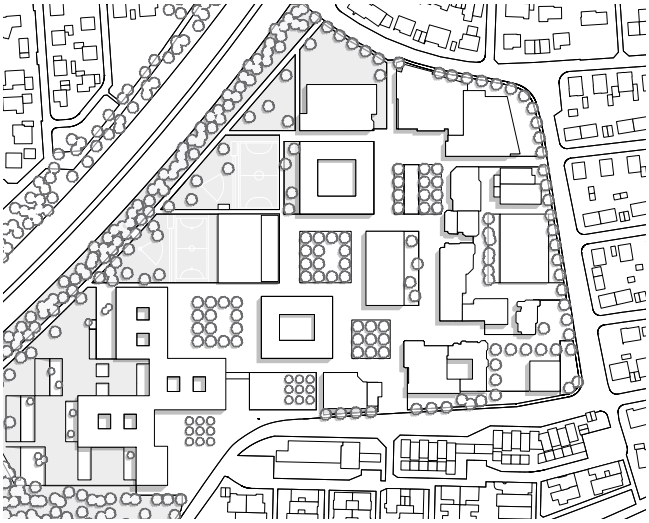


Floor plan for the top floor

Views



Floor plan of the ground floor



Layout

HÖRMANN EXPERTISE: VISIBILITY WINDOWS

Transparency in the Oscar Paret School

Looking at the Oscar Paret School, you can tell that the architects have put a lot of thought into it. Dipl.-Ing. Stefan Korkus introduces the visibility windows, which play an important role in the design.

When does it make sense to use visibility windows in buildings?
Visibility windows are an ideal design element whenever there is a need for more light entering rooms and corridors. They also allow fitting independently of certain trades. There is no need for connections such as window sills or corner protection rails. And in the powder-coated version, on-site coating is also not required. This saves on time and reduces the number of interfaces at the construction site. The double-shell version of the product can be fitted at a late construction stage when other trades such as dry construction, bricklaying, painting and tiling are already completed. This reduces the risk of damages during construction considerably.

What are the largest differences between visibility windows and, for example, storey-high, fixed "windows" built from tubular frame elements?
Visibility windows are single- and double-shell steel profile frames. They don't have a groove for fitting during wall construction or subsequent fitting. The visibility windows can be manufactured to individual dimensions – width, height and wall width – to suit the customer's requirements. After fitting, the frame encloses the entire opening. Fixed glazings made of tubular frames, on the other hand, have fixed dimensions for the fascia frame. The fascia frame is then fitted in the wall reveal, either at the centre or flush-fitting to the rebate side or opposite rebate side. This also reduces the natural light entering the space.

The fire-proof glazings F90 at the Oscar Paret School have a project-related construction technique permit (vBG). What does that mean?
The building owner made a specific request for a substantial deviation from the general construction technique permit (aBG) Z.-19.14-1516 of the DIBt. This not only referred to the permissible maximum glass dimensions, the frame face width

Visibility windows in the classrooms.

Some sections of the Oscar Paret School feature visibility windows fitted around a corner.

Photo: Hörmann

Dipl.-Ing. Stefan Korkus, product manager for steel frames at Hörmann.

and the coupling of the individual fire-proof windows, it also involved an additional request to include a second insulated glass pane with screen in the pane gape (SZR).

Three of these fire-proof windows are coupled – why is this?
Our customer wanted to achieve a wide, homogenous appearance. Based on the requested gap dimensions and possible tolerances between the profiles, we suggested a gap dimension of three millimetres between the individual fire-proof windows. As the general construction technique permit prescribes gap dimensions of at least 45 millimetres for F90, this had to be included in the vBG. On completion of fitting, the gap can then be sealed on site.

Some of the visibility windows have a screen. What other equipment options are there?
Normally, screening systems come in the form of roller blinds or Venetian blinds operated via a 24 V motor. Any required accessories such as transformers, surface-mounted boxes and rotary switches are also supplied by us. We fit the screening system and check the system 100% at the factory before delivery. The project in Freiberg am Neckar presented us with a challenge: for the first time, we had to develop a manual Venetian blind to be fitted in the space between the panes of a double-glazed visibility window. Our development and product management teams had already taken a close look at this topic in advance and held initial talks with potential suppliers. This approach really helped to find a suitable solution for this new challenge at the Oscar Paret School. As an added bonus, this product was then directly presented to an expert audience at the BAU 2023 in Munich, paving the way for an expansion to our product portfolio.

Did the architects have any special requests?
The architects chose the special colour NCS S-8000-N (Anthracite) for this project. In addition to the individual glass types, they also wanted to see samples of the crank handle for the blind and the powder coating on the frame sheet in advance.

How was the process to agree the colour samples with the architects at the Oscar Paret School?
Due to our high quality requirements for this special colour, our powder supplier had to make several adjustments in their laboratory until we achieved the desired result. As we were on a tight schedule, we had to really push the boat out. Apart from the visibility windows and the sliding door frames, we also manufactured frames for fire-rated and acoustic-rated doors from our associated company Schörghuber in our factory in the required colour.

Why did the Oscar Paret School require oversized visibility windows?
The planner specified floor-to-ceiling visibility windows and fire-proof glazing to allow as much light as possible into the rooms and corridors and to create maximum transparency. This design also avoided the need for on-site provision of railings and lintels.

What's the challenge of the corner windows?
Normally, we only offer and manufacture one-part corner windows for fitting during partition wall construction.
The customer specifically requested double-shell corner windows for subsequent fitting, but this was a challenge due to the outer dimensions of the frames and the wall opening dimensions. After numerous drawings and consultations, our solution was finally accepted: we suggested subsequently placing the connecting profile on one side of the corner window – basically a mixed construction. With this ingenious solution, we were also able to fulfil this requirement of our customer.

Photos: Stephan Falk

CUM LAUDE

ALLMEND SCHOOL PREMISES IN ZURICH BY STUDIO BURKHARDT

Raw concrete and visible technology characterise the traffic areas.

School can also be done differently. Visitors can now see this in Zurich's "Greencity": this unconventional school building was erected within a short timeframe, is energy-saving, deliberately sustainable and an integral part of a new urban district. It can be done!

Are we still in Zurich or is this a cross of the centre of Berlin and a brave new eco world? In any case, Swiss architecture critics and the national press showed slight irritation in their response to the new "Greencity" in the south of Zurich. The urban society concept created there does not (yet) seem to fit the Swiss lifestyle and the nation's idea of freedom. But right here, at the centre of the Greencity, is the birthplace of a truly remarkable school.

"Is this how we want to live?"

Previously a paper production site, the area is nowadays densely populated with blocks of flats. Up to 3000 people are expected to live here soon, including an estimated 250 children who need a school. Located behind a motorway interchange and wedged between the tracks of the Sihltal railway and the A4 motorway, a pioneering climate and socio-political project is underway. The central concern: energy consumption should be no more than 2000 W per person. Average consumption in Switzerland is 5000 W. And this comes with a few consequences: as the heating is remote controlled, the flats of the singles and large families for whom the buildings were constructed won't get warmer than 20°C, even in winter. Individual energy consumption can be viewed with an app. Private washing machines and tumble dryers are forbidden. And the rental agreements come with a number of special clauses. There are extremely limited parking facilities, and that was a conscious planning decision. Anybody interested in renting one of the flats has to contractually commit to not owning a car and to operate only the most economical household appliances. The Neue Zürcher Zeitung asks, "Is this how we want to live?" – and answers it by stating: "Hopefully our green future will look different." While we haven't yet heard the response of the Swiss press to the question, "Is this how we want to learn?", we can already visit the school building constructed in line with the objectives of the "Greencity".

It can be done!

Anyone familiar with routine school construction in Germany, will find it hard to trust their eyes when faced with the new building by Studio Burkhardt in cooperation with Pirmin Jung. You can't help but exclaim, "It can be done!" when you look at this undogmatic building with its striking semi-circular sun protection elements. Because what's on offer to the young people of "Greencity" is in no way like the new buildings that are so common in Germany – while managing to meet the energy and socio-political objectives of the estate.
Instead of the usual big yard creating a distance between the school and the city, the narrow plot of land in the "Greencity" and the unusual positioning almost automatically lead to unorthodox solutions. While the closed section of the narrow building houses the classrooms, canteen, childcare, nursery, rooms for special education, a music conservatory, an individual sports hall and a gymnastics room, a public spiral staircase leads to the roof. Whatever you might have missed at the bottom can be found at the top: a publicly accessible football pitch and a lovely garden, the quality of which is far superior to that of any "Greencity" space on the ground floor. And as the PV elements also shield the pitch from the weather, all players benefit from staying dry. The building's design is in line with the strict energy regulations that apply to the whole quarter. The basement and the staircase cores are made of recycled concrete. Everything else was erected in a short time using a system of prefabricated timber modules. So the answer to the question if this is the way we want to learn in Germany is quite easy: Why not?

If required, the canteen can be expanded by including the adjacent multi-purpose hall to create an assembly hall with a stage and a screen. Coloured curtains provide accents in this space.

The railway divides the area surrounding the Allmend school building in two sections. A new bridge has been constructed to connect the two sides.

The roof features a publicly accessible sports pitch shielded by solar panels.

A clear structure with playful elements: the facade of the Allmend school building.

Native plants grow in the roof garden.

The rooms for the smaller children have been designed to feel homely.

The classrooms are equipped with the latest technology and modern furniture.

Schörghuber expertise: Doors with glazing cut-outs

An important design feature that runs through the entire Allmend school building are the round glazing cut-outs in the doors, some of which are also integrated into the walls as windows. Doors in passageways usually have three of these round glazings to ensure sufficient visual contact between users. The other doors have one round glazing or none at all if they are doors to adjoining rooms. However, the number of glazing cut-outs does not indicate the door equipment. Both fire-rated and acoustic-rated doors generally feature glazing cut-outs, and both door types are used as single-leaf and double-leaf versions. In some cases, they are supplemented with fixed transom lights and side elements with acoustic insulation function. In addition to function doors, composite timber doors are also installed, some of which also have a glazing cut-out. The thickness of the door leaves ranges from 42 to 70 millimetres, depending on their use. All doors feature concealed door closers.

The sports hall is accessed via a double-leaf door.

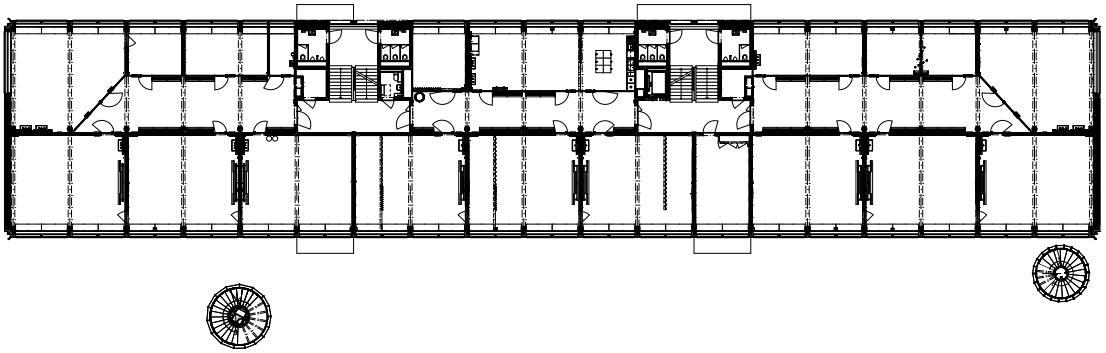
Doors with round glazing are used throughout the entire school.

Transom lights complement the classroom doors.

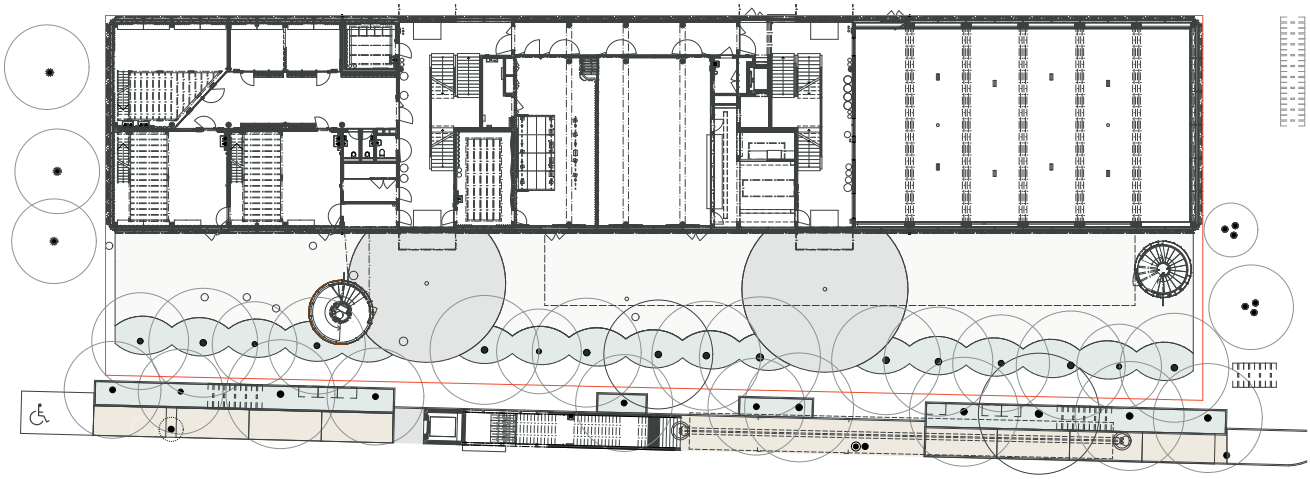
All the door leaves are white – except for the doors to the wet rooms.

Location: Greencity, Zurich, Switzerland
Building owner: City of Zurich, Office for Structural Engineering, Switzerland
Architect: Studio Burkhardt, Zurich, Switzerland
Construction engineer: Pirmin Jung Holzbauingenieure, Rain, Switzerland
Completion: 2023
Photos: Laura Thiesbrummel, Munich, Germany
Hörmann products: sports hall frame, 2-part, steel profile frame, 2-part for retrofitting

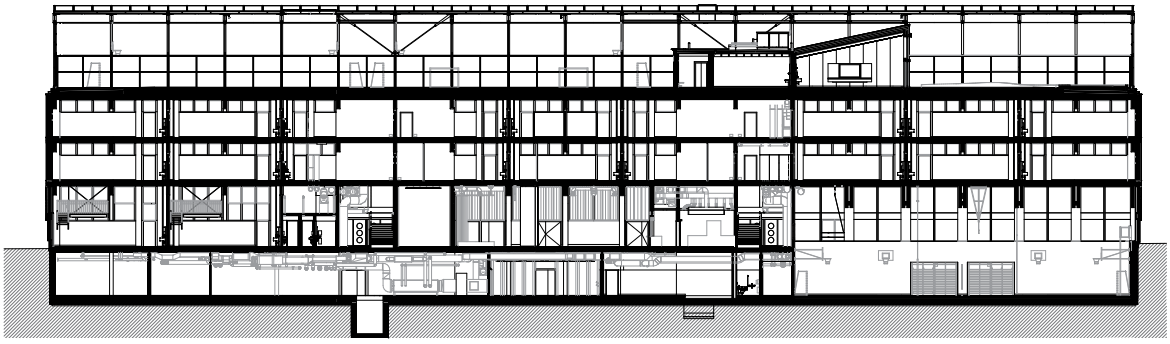
Schörghuber products: double-leaf sports hall doors, composite timber doors, fire-rated doors EI30, fire-rated / acoustic-rated doors EI30 with Rw = 37 dB, acoustic-rated doors with Rw = 47 dB, acoustic-rated doors with Rw = 32 dB, solid timber frames, acoustic-rated fixed glazing



Floor plan of the first floor



Floor plan of the ground floor



Longitudinal section

DETENTION

MODEL SPORTS HALL AT THE LILY-BRAUN-GYMNASIUM IN BERLIN BY SCHOLL ARCHITEKTEN PARTNERSCHAFT

The new Berlin look? The TSH60 and the larger model TSH199 are being constructed at various locations in Berlin and are part of the Berlin School Construction Offensive.

If you don't pay attention in class, you have to spend extra time in detention. The same goes for school construction. Because politicians in Berlin have neglected to maintain the city's existing buildings for decades, they now have to make up for lost time – and build model sports halls.

The solutions to the capital's building problems go by the bland names of TSH60 and TSH199. These are two versions of the model sports hall that were originally supposed to be built at 32 locations as part of the Berlin School Construction Offensive. Nine buildings have now been realised, and 16 more are scheduled to be built in a more compact form. Ultimately, this is an admission of decade-long municipal mismanagement. The need and the lack of sports facilities for schools and sports clubs were so great that the only option seemed to be to build identical structures. The model sports hall would eventually become as characteristic of the Berlin cityscape as the many discount supermarkets.

A stroke of luck

The TSH60 offers space for 60 people in the gallery. The TSH199 is slightly larger and offers space for 199 sports fans, making it suitable for competitions. A row of equipment rooms as well as a string of changing and ancillary rooms are located on both sides of the hall and can be arranged back-to-front if necessary. In all other respects, the buildings are identical in every detail – no matter where they are located. The entrance to the schoolyard is at one end of the string of ancillary rooms, with an opening to the street at the other. Through this standardisation and the extensive prefabrication, the Berlin Senate expected to benefit from reduced costs and timeframes. After all, the city is notorious for being short on time and finances. The first model sports hall was built in a record-breaking 16 months.

Ironically, a firm from Stuttgart won the architectural competition, fulfilling the wishes for a cost-saving construction with sustainable European softwood. This proved to be a stroke of luck for the city of Berlin. The architects from scholl architekten partnerschaft scholl.balbach.walker found an ingenious but elegant design solution.

A short tour through the new world of the Berlin model sports halls shows that the concept works. The adjoining high school in the "Gründerzeit" style almost looks huge in comparison to the Lily-Braun-Gymnasium model sports hall. The light grey timber mould, the opaque industrial glazings and a discreet entrance all contribute to the restrained and simple look of the sports hall. The same goes for the sports halls located behind the listed, mosaic-adorned primary school at the Steglitz city park and for the Vineta primary school in Berlin's Mitte quarter. The model sports halls not only fulfil their function, they also blend seamlessly into their surroundings in a way that's quite surprising for a standardised design.

Distinctive component

When it comes to architectural cliches, "genius loci" is one of the most popular phrases, second only to "form follows function". In construction, this means letting the surroundings of the location determine the building design. This was rather difficult in this particular case, since one and the same building design had to match a variety of locations. The solution of the preoblem was to define the "locality" of the genius loci in more broadly terms.

As a reference to Berlin's genius loci, the model sports hall incorporates a design element that has since become a characteristic architectural detail in Berlin. It can be found at the James Simon Gallery as well as the Berlin Airport and even at the "Neue Nationalgalerie". This design element is characterised by elegantly arranged, towering pillars. For the model sports halls, this was incorporated in the form of a vertical timber / aluminium facade design with light-diffusing glazing. A real stroke of genius by the Stuttgart architects! We can only hope that their success will not set a trend of designing all public buildings as model buildings, regardless of their location.

Minimalist, proportional, made of timber: The model sports hall meets several requirements for contemporary, modern and sustainable architecture.

The interior is characterised by a timber look. The sports hall is designed for maximum functionality without compromising on its appearance.

An iconograph points the way to the gallery.

From the gallery, viewers can follow the hustle and bustle on the sports field.

Schörghuber expertise: Doors with PU edge

For Berlin's model sports hall TSH60 – in this case for the Lily-Braun-Gymnasium – Schörghuber supplied the doors for the changing rooms. All doors are flush-closing and come with a black HPL laminate and a cast PU edge on three sides (on four sides in the wet rooms). The doors were supplies in two different sizes: either with a height of 2100 millimetres or with an extra generous height of 2400 millimetres. Depending on their size and weight, they are held by two or three hinges. Both the acoustic-rated doors and the composite timber doors have a door thickness of 70 millimetres. The background for the design: the door leaves should be flush-fitting on the opposite hinge side. The door leaves of the wet rooms, on the other hand, are 50 millimetres thick. To ensure their long-term durability, they do not contain any timber materials. In addition, two fire-rated doors were fitted, which are inserted in the wall via mortar-free steel frames. They can be screwed directly into the wall without the need for much preparation.

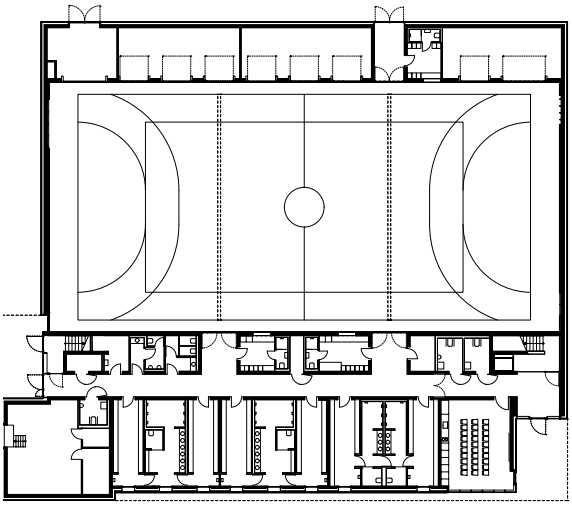
The changing rooms have a minimalist design.

The doors to the wet rooms feature transom panels.

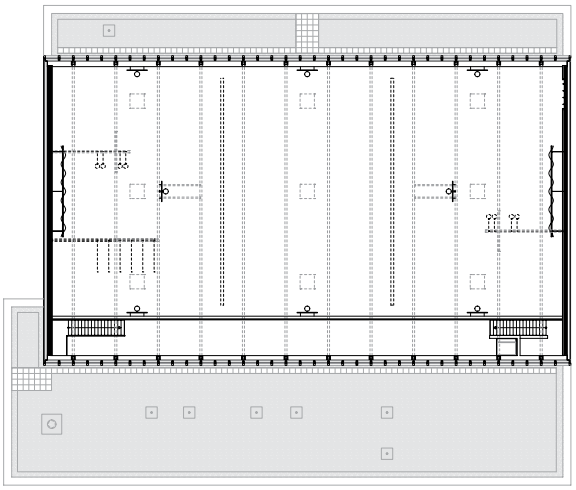
With a height of 2400 millimetres, some doors are nearly ceiling-high.

The "staff room" is also equipped for possible medical incidents.

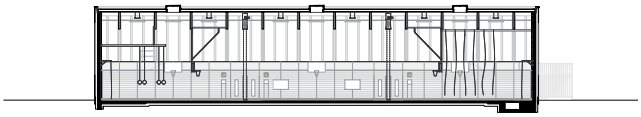
Location: Münsingerstraße 2, Berlin, Germany
Building owner: Senate Department for Urban Development, Construction and Housing, Berlin, Germany
Architect: scholl architekten partnerschaft scholl.balbach.walker, Stuttgart, Germany
Completion: 2021
Photos: Laura Thiesbrummel, Munich, Germany
Hörmann products: mortar-free steel block frame
Schörghuber products: wet room doors and damp room doors, acoustic-rated doors Rw = 37 dB, composite timber doors, fire-rated and smoke-tight doors T30



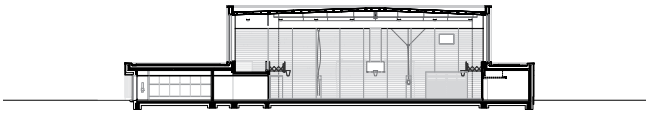
Floor plan level 0



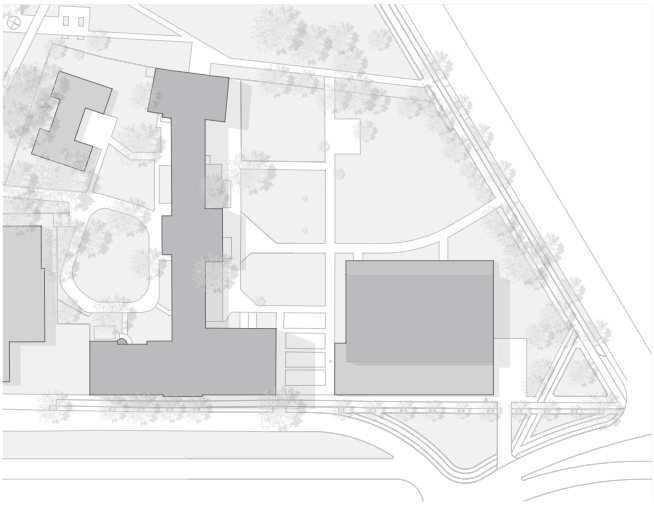
Floor plan level 1



Longitudinal section



Cross section



Layout

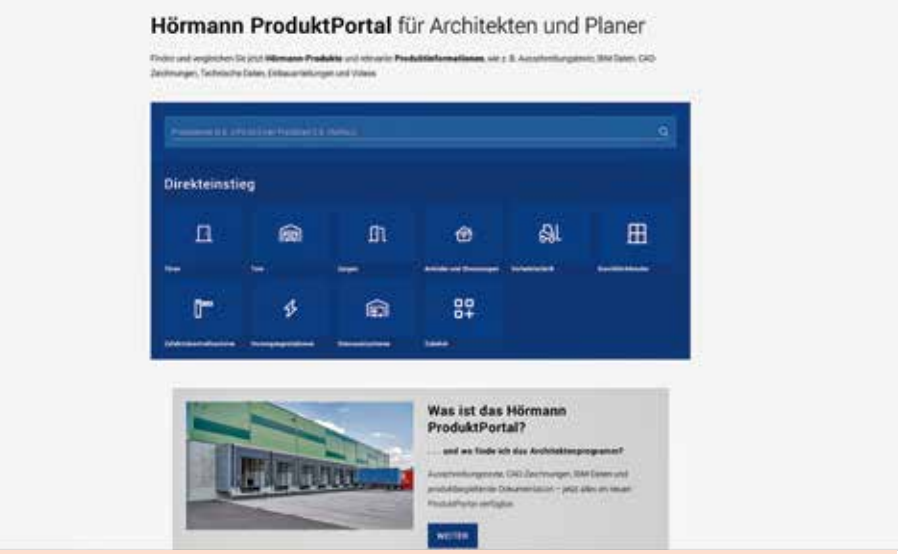
HÖRMANN
CORPORATE NEWS

Sarah Osterholt, Sustainability Officer.

Hörmann reduces and compensates CO_2, allowing it to offer CO_2-neutral products.

CO_2-NEUTRAL CONSTRUCTION COMPONENTS FOR A MORE SUSTAINABLE FUTURE

As a family business, Hörmann is very conscious of its responsibility to future generations and has been offering all products for residential construction CO_2-neutral as standard since 01.01.2023. Products for construction projects are also available as CO_2-neutral versions upon customer request. The manufacturer assumes the costs to supply CO_2-neutral residential construction products such as garage doors, operators, steel doors and frames, entrance and residential internal doors, and storage space systems as standard by promoting climate protection projects. Hörmann products for construction projects, such as industrial doors, loading technology, construction project doors and perimeter protection systems, are optionally available as CO_2-neutral products in Germany. This means Hörmann is giving its customers the chance to help achieve CO_2 neutrality through their purchase decision. Hörmann has been calculating the carbon footprint for all manufacturers in the Group in the European economic area on an annual basis since 2019. Both direct and indirect emissions are taken into account in accordance with the Greenhouse Gas Protocol to provide the most complete and accurate overall view possible. "We voluntarily calculate our corporate and product carbon footprints, i.e. this is not a legal requirement. But this is how we know exactly where emissions occur and where we can take action to reduce them and, ideally, avoid them altogether," explains Sarah Osterholt, Sustainability Officer at the Hörmann Group. By calculating its CO_2 balance, Hörmann's climate protection strategy



Photos: Hörmann

The new Hörmann Product Portal helps architects and planners with project planning.

HÖRMANN PRODUCT PORTAL FOR ARCHITECTS AND PLANNERS

The Hörmann Product Portal replaces the previous Architects' Program and offers additional support as a digital tool for independent product research. The website enables architects and planners to easily search for the right product solutions using filters and to quickly access comprehensive product information such as texts for invitation to tender, drawings, BIM data and other documents.
There are two ways to access the desired product information: via a central free-text search, or by selecting the products from the main categories, such as doors or loading technology.

A wide range of filters is available to search for the right product solution. The product suggestions are then displayed on dedicated detail pages. Here, planners and architects can find the most important technical information on the products, all associated documents such as brochures or fitting instructions, texts for invitations to tender, drawings, BIM data, approvals and videos. The product comparison offers additional support when searching for the most suitable products. It is possible to compare up to three products in the Product Portal. The Product Portal can be accessed via the following link: produktportal.hoermann.de

focuses on reducing and avoiding emissions. As such, Hörmann uses 100% genuine green electricity to cover the entire electricity requirement of all its European production sites, thereby saving more than 75000 tons of CO_2 annually, in addition to implementing many other measures. To reduce consumption, the manufacturer uses, among other things, an intelligent and certified energy management system, recycled paper and recyclable materials, a CO_2-neutral postal service, and reduces and upcycles packaging materials. In addition, the manufacturer has launched a project for the local production and process heat application of hydrogen, thus partially replacing natural gas as a fuel. Hörmann woodworking factories use the chips produced to generate heat. The remaining emissions are offset by promoting certified climate protection projects focusing on renewable energies, forest protection and reforestation in cooperation with ClimatePartner. Emissions resulting upstream or downstream in the supply chain cannot be influenced by Hörmann directly. This is why the company includes its suppliers in its climate protection activities and encourages them to become active themselves. As a result, Hörmann is now able to procure the first CO_2-neutral products from its suppliers.

Photos: Hörmann

RESIDENTIAL CONSTRUCTION

ClimatePartner certified product
climate-id.com/XNEBKC
CO2 measure reduce contribute

CONSTRUCTION PROJECTS

ClimatePartner certified product
climate-id.com/FYZNUF
CO2 measure reduce contribute

More information on the topic of sustainability is available at: hoermann.com/sustainability

SCHÖRGHUBER CORPORATE NEWS

The Super Secure finger trap protection door offers maximum safety as the hinge and sealing system is integrated directly into the frame and door leaf.

MAXIMUM SAFETY, ACCESSIBILITY AND A SOPHISTICATED DESIGN

Finger trap protection on doors is very important when planning day-care centres. In fact, more and more schools, care facilities and clinics also specify appropriate constructional measures to prevent serious injuries to fingers. The new Super Secure finger trap protection door from Schörghuber is the ideal solution for this purpose. It is suitable for a variety of applications and combines maximum safety with accessibility and aesthetic features.

Preventing crushing and shearing hazard points on doors

Day-care centre staff and teachers in schools are familiar with that moment of shock: The child reaches thoughtlessly into the gap between the half-open door and the frame. What happens if the door closes further? To ensure that doors do not pose a risk of entrapment, appropriate structural precautions must be implemented, such as protective profiles, protective blinds or door constructions with a safety function. In day-care centres, child clinics and wards as well as facilities for the disabled, such measures have been mandatory for many years. However, there is an increasing demand for finger trap protection solutions in schools, too, particularly in frequently used areas such as classrooms or bathrooms. The city of Ingolstadt, for example, explicitly refers to finger trap protection in primary schools in its invitations to tender. In care facilities, finger trap protection on doors is equally useful in order to protect staff and residents from injury.

Solid timber frame doors and fixed glazings are manufactured at the Jahrdorf location.

Super Secure finger trap protection door for maximum safety

Schörghuber has launched the Super Secure, a new finger trap protection door that offers maximum safety. This is due to the fact that the special hinge and sealing system is integrated directly into the frame and therefore eliminates any gap at the secondary closing edge. This makes it impossible for fingers to get caught and crushed. The Super Secure finger trap protection door also complies with smoke protection and acoustic insulation requirements up to Rw 37 dB and is accessibile thanks to the integrated release of the retractable seal. On top of the functional aspects, the finger trap protection door meets the highest design demands due to its flush integrated connection to the frame and door leaf. Thanks to the colour coordination of the finger trap protection system, it can also be used as an architectural element. The finger trap protection door can be combined with steel or timber frames from the Schörghuber range, opening up a wide range of design options.

SCHÖRGHUBER INVESTS IN JAHRDORF LOCATION

Schörghuber Spezialtüren KG is investing a mid-seven-figure sum in a CNC machining centre at its production location in Jahrdorf near Passau. The leading manufacturer of special timber doors, headquartered in Ampfing, Bavaria, has taken this measure to increase the company's future viability and further expand its market position. The future CNC machining centre will enable Schörghuber to continue along the path of even more environmentally friendly and efficient production. All Schörghuber products are already manufactured in a CO2-neutral manner. Only domestic FSC- or PEFC-certified wood is used, and the heating in Jahrdorf is generated with the company's own wood and chip waste. The electrical power needs for the machinery are covered by 100% "genuine" green electricity. "The CNC machining centre marks a major step for our future viability in terms of energy savings on the subsequent transport route and material savings without having to compromise on quality," explains Walter Wimmer, Production Manager at Schörghuber for the Jahrdorf and Ampfing locations. Of the approximately 450 people employed by the company, about 50 work in Jahrdorf. Employee turnover is low, as many have been working for Schörghuber for decades. "We are a well-established team and can rely on each other. And what's more, we work where other people choose to spend their holidays," explains Christoph Hödl, master carpenter and trainer at Schörghuber.

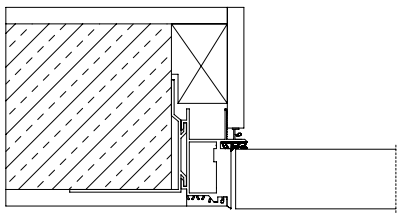
The investment in a CNC machining centre ensures the future viability of the factory.

Photos: Schörghuber

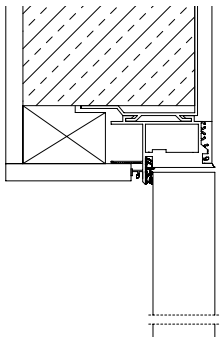
TECHNOLOGY: HÖRMANN ALUMINIUM FRAME ZEROLINE

Application: In contemporary and minimalist interior design, flush-fitting doors are very much in vogue. The new, fully plastered Hörmann Zeroline frame combined with a flush-closing door leaf and concealed hinges ensures a completely flush finish. During the fitting process, an additional flexible mesh is used to ensure an optimum wall connection and to prevent cracks from forming in the plaster. As a result, the doors blend seamlessly with the surrounding walls, creating a minimalist room design. The Zeroline frame made of anodised aluminium is available for flush-closing and reverse-opening timber doors. Unlike traditional residential internal doors, the reverse-opening doors open into the room by way of the frame. This results in a flush and matching door view on the hallway side.

Model: aluminium frame Zeroline **Versions:** single-leaf **Door variants:** flush-closing, reverse-opening (into the room) **Profile system:** aluminium **Frame face:** without frame face / plastered flush with the wall **Wall widths:** min. wall thickness 80 mm (due to support bracket for frame fitting) **Max. dimensions:** door leaf dimensions 2500 × 1235 mm (L × W) **Door leaf thickness:** 45 mm **Opening angle:** approx. 180° for flush-closing version, approx. 90° for reverse-opening version **Fitting in:** dry construction, solid wall construction **Fitting:** frames can be screwed to the wall using the fitting brackets supplied. Screws / plugs are not included in the scope of delivery **Surface finishes**: aluminium, alternatively powder-coated in RAL colour

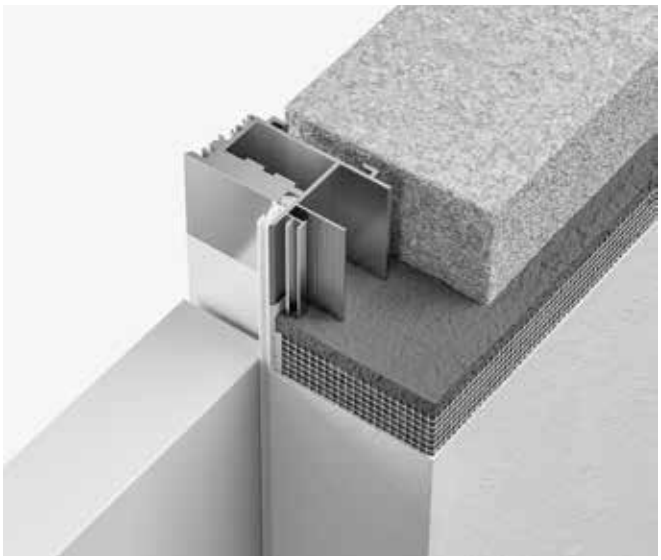


Horizontal view of Zeroline frame with flush door leaf.



Vertical view of Zeroline frame with flush door leaf.

The fully plastered Zeroline frame ensures a completely flush finish.



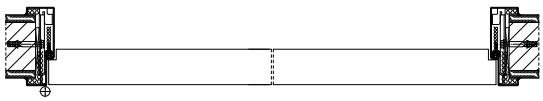
A flexible mesh is used to ensure an optimum wall connection.

Photos: Hörmann

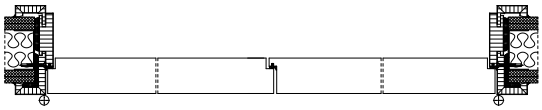
TECHNOLOGY: SCHÖRGHUBER ACOUSTIC-RATED DOORS ACCESS

Application: New EU product standards, changes in building laws, more demanding user requirements and increasingly open architectural room concepts call for door solutions that feature ever better acoustic insulation and fire protection. In addition to excellent fire protection and acoustic insulation, Schörghuber door sets are also available with additional functions and a custom design. With a 70 mm thick door leaf and an acoustic rating of up to 42 dB, the "Access" acoustic-rated door only needs a single sealing level in the door frame. This means that it can also be supplied in an accessible version – as a tested and certified complete system with door leaf, frame, lever handle, closer and seal. In combination with optional T30 fire and smoke protection functions as well as break-in resistance equipment in line with resistance class RC 2 or RC 3, it offers a wide range of architectural design options. The acoustic-rated doors "Access" are now also available in a new double-leaf variant.

Product: acoustic-rated doors Access **Function:** acoustic insulation Rw = 37 dB and 42 dB, fire protection T30, smoke protection, burglar protection RC 2 and RC 3, accessible **Version:** single-leaf and double-leaf, with only one sealing level **Dimensions (frame hold dimension max. width × height):** single-leaf 1466 × 3233 mm, with top part up to 3983 mm, double-leaf 2966 × 3233 mm, with top part up to 3983 mm **Fitting in:** solid walls, partition walls, uncovered timber components, covered timber components, covered steel components, covered steel girders **Frames:** all steel and timber frames as well as aluminium frames from the Schörghuber range **Surface finishes:** HPL laminate, premium coating, veneer, Durat, CPL, raw for surface treatment on site



Horizontal view of brickwork



Horizontal view of partition wall

Photos: Schörghuber

"Access" only requires one sealing level in the door frame. It is available with additional functions and now also in a double-leaf version.

ARCHITECTURE AND ART
JENNIFER KÖNIG

4510_clr_22 CBTWIS (substructure), oil on wood 50 × 40 cm, 2022.

4560_clr_22 CBTWIS (substructure), oil on wood, 50 × 40 cm, 2022 (left) / 5015_clr_27 CBTWIS (substructure), oil on wood, 200 × 163 cm, 2022 (right) – exhibition view 2022, ASPN Gallery, Leipzig.

Paintings usually consist of layers of paint applied on top of each other. The main motif is painted at the end and more or less covers the layers of paint that have already been applied. Jennifer König does things differently, however.

The artist from Leipzig has adopted a whole new approach to painting. She begins by painting her main motif on an MDF panel – these are usually spontaneous, almost dance-like movements on the canvas, rendered in just a few brushstrokes. Only then does she paint the background. She covers up the motif and paints the background on top, leaving only a discreet "joint". She repeats this process several times, resulting in a series of motifs that – arranged on a rigid rectangular grid – appear as if they were sections from other paintings combined as a collage. Only rarely does she break away from this principle and go beyond the self-imposed constraints, be it with a fully defined movement or with typographical elements that extend across the grid. It's not always obvious to the viewer that these works are paintings. This particular painting method makes them appear as if they were printed. Jennifer König achieves this by exploiting the surface and the paint: the smooth texture of the MDF panels and the diluted oil paint make the brushstrokes look as if they were watercolours. This does away with the painted-on effect of traditional oil paints and reduces them to mere brushstrokes. She then applies a layer of clear varnish on top of the colours that gives them an exceptionally glossy appearance. This accentuates the artificial look of her paintings and makes viewers wonder how these images were created in the first place.

Artist: Jennifer König
born in 1984 in Henningsdorf,
studied painting and graphics at the Leipzig Academy of Fine Arts (HGB) from 2011 to 2017. She spent one year of her studies in Brussels at the École nationale supérieure des arts visuels de La Cambre. She received her diploma cum laude and then spent three years as a master student with Christoph Ruckhäberle, again at the HGB in Leipzig. Since 2017, her works have been shown in group and solo exhibitions. Jennifer König has been nominated for several awards.
www.jennifer-koenig.com

Photos: Enrico Mattner (portrait), Gustav Franz (artwork), Stefan Fischer (exhibition view, left), Clemens Reinecke (exhibition view, right)

1050/30_clr_50 CBTWIS (substructure), oil on wood, 110 × 90 cm, 2021 (left) / 1050/10_clr_50 CBTWIS (substructure), oil on wood, 110 × 90 cm, 2021 (right) – exhibition view 2022, ASPN Gallery, Leipzig.

RECENTLY IN ... NORDERSTEDT

Photo: Deutscher Philologenverband e.V.

This year's special award for "Environment and Sustainability" of the German Teacher Award goes to Norderstedt. There, Kathrin Peters realised an exciting project with her pupils.

You are one of several teachers who have received this year's award. How are the awards given?
Whereas you are nominated for the Outstanding Teacher or Exemplary Educational Leadership awards by the student body or by the faculty, you can apply for the Innovative Teaching Award yourself. I applied for the award with my "Tiny House" project.

Please tell us a little about this project.
Our UNESCO school is part of the Climate Action Project, whose participants met twice a year to develop a Whole School Approach to climate protection at 26 participating German schools. One of the workshops was hosted by the architect Van Bo Le-Mentzel, who is a professor at the Bauhaus Campus in Berlin and the initiator of the German tiny-house movement. He was able to inspire our students and teachers to such a degree that they decided to build a tiny house in 2018.

How is the tiny house used?
The tiny house can be rented for private use. However, it is intended more as a mobile workshop for schools focusing on the topics of environment, climate protection and much more. We've already had a few enquiries and orders.

In your opinion, is this what teaching will look like in the future?
Absolutely! Particularly because teachers and pupils are becoming more and more alienated from each other. Education is a team effort that involves our whole society, and you can't just confine adolescents to this parallel "world of school" until they are fit to enter society.

Will there be a follow-up project in the near future?
Last year we provided the whole year group with another opportunity to work together on a major topic, this time in the context of human rights education. Unfortunately, all of the student groups wanted to choose their own topics. A project similar to the tiny house project would make sense, but as a UNESCO school we need to include the students in our decision-making process and take their opinions seriously.

The Ossenmoorpark comprehensive school before the new construction.

Planned and constructed by pupils of the 9th and 10th grade.

Photos: Kathrin Peters

Kathrin Peters
studied teaching at the Christian Albrechts University in Kiel, where she later completed her Master's degree in educational management. She first worked as a teacher and school coordinator at two schools in Ahrensburg, but in 2016 she transferred to the Ossenmoorpark comprehensive school in Norderstedt, where she is currently working as the deputy headmaster. Her subjects are English, French and music.
www.gems-ossenmoorpark.lernnetz.de

What makes a good school building in your opinion?
Planning for our new school building is already underway. As this is going to be a new school centre with a comprehensive school as well as a grammar school, this will be a major undertaking. Both schools will be closely involved in the planning stage, which is not a common thing. However, we can already see that the building design is quite inflexible with a typical teacher-centred teaching and standard office building approach and a lack of space compared to the old school. Based on my experience in this area, I would argue for more flexible school buildings whose use can be adapted as needed. Besides, a school is not a museum that has to be preserved in the way the planners intended. Walls, ceilings and open spaces should be freed up to realise artistic and practical projects. However, fire protection and many other regulations restrict this.

You can read the full interview on www.hoermann.de/portal

Rendering: gmp Architekten

The design of the Glashütte school campus was done by gmp Architekten.

PORTAL 58: International

Hörmann is Europe's leading manufacturer of doors and other innovative products. The company is also successfully represented on other continents with its own sales locations and partner companies. Various exciting projects are being implemented outside of Europe that are not always in the spotlight of German architecture critics. This is why we will also present projects from countries outside of Germany in the "International" issue of Portal – without losing sight of Europe, of course. You can therefore look forward to four fascinating projects from all over the world.

Photo: Rike_ /iStockphoto

Internationality is a symbol for the diversity of culture and architecture.

Free access for all, without restrictions. Barrier-free doors

Only from Schörghuber: certified barrier-free door solutions for construction projects and residential construction. Tested as a complete set consisting of door leaf, frame and door fittings.

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