

HÖRMANN SCHÖRGHUBER

PORTAL 41

CHILDREN

INFORMATION FOR ARCHITECTS FROM HÖRMANN AND SCHÖRGHUBER
KAUFFMANN THEILIG & PARTNER, LUDLOFF LUDLOFF ARCHITEKTEN, SCHULZ UND SCHULZ, TR.ARCHITEKTEN





Transparency for modern learning: S-Line steel fire protection elements

- **Ideal learning environment:** Open with large glazing, with narrow and robust steel profiles that withstand high demands.
- **Functional planning:** Fire-rated, smoke-tight and acoustic-rated designs, as well as RC 2 safety, facilitate individual fire protection and safety concepts
- **Great design scope:** Possible to combine room-high and room-wide door assemblies in uniform colour design for the entire door set

T30

RS

DB

RC2

HÖRMANN
Doors for Home and Industry



Dear Readers,

The best is just about good enough for our children – especially when it comes to day care centres, schools and other facilities for young people. And we will make the case by showing you four eminent application examples in this edition of PORTAL focussing on the topic of “children”. It is obvious that this construction task is experiencing an exceptional boom period. During the editorial meeting for this edition, we also noticed that, amongst the wealth of projects, there was an especially high amount of architecture worth showcasing. After all, not only is the number of buildings for children on the increase, but their quality is growing significantly too. This made it quite challenging for us to select individual projects. And this is clear evidence of how important and accepted by society this genre of construction has now become. We made a conscious decision to choose a very diverse spectrum of buildings in this edition of PORTAL, ranging from child day care centre to a classic school, and from leisure pool to the “Embassy for Children” – because the architecture that is dedicated to the welfare and prosperity of the coming generation is just as multifaceted. The era of school buildings following the book is certainly over,

and the classic draft templates from “Neufert” are a thing of the past for building day care centres. Numerous companies are now building their own day care centres for employees’ children – and the perspectives of state or church operators are no longer at the forefront. It is now about the benefits for the “customer”. After all, in an era of skills shortages, an excellent place in a day care centre is one of the arguments for employees to remain loyal to a company for a long time – and so day care centres are being meticulously planned. One example is Bayer AG’s “Löwenburg”. But will architecture needed at a specific time be able to endure in the long run? The architects working on the Vocational College in Regensburg adapted a timeless example of modern school construction and matched it to contemporary needs at the same time. We will show you this school, as well as the Waldkirch open air pool in the Black Forest. After all, the “s Bad” for local children and tourists is an excellent example of leisure architecture available after school and in the holidays. And the “Embassy for Children” in Berlin ultimately demonstrates that care for children must not stop when they finish school.

Christoph Hörmann

Thomas J. Hörmann

Martin J. Hörmann

Personally liable general partners

**ABOUT THE TOPIC:
CHILDREN "KNOW-IT-ALLS"**



**CHILD WELFARE:
SOS EMBASSY FOR CHILDREN IN BERLIN**



**THE FUTURE OF CHILDREN:
VOCATIONAL COLLEGE IN REGENSBURG**



**CRÈCHE:
DAY CARE CENTRE AT BAYER AG IN LEVERKUSEN**



**FUN FOR KIDS:
S BAD IN WALDKIRCH**



**CORPORATE NEWS
HÖRMANN AND SCHÖRGHUBER**



CONTENTS

TECHNOLOGY HÖRMANN AND SCHÖRGHUBER



ARCHITECTURE AND ART JOCHEN PLOGSTIES



RECENTLY IN... LEGO MINILAND LEGO FIGURE BERRY



04 CONTENTS / IMPRINT

06 ABOUT THE TOPIC: CHILDREN

“Know-it-alls”

by Päivi Kataikko-Grigoleit and Dirk E. Haas

12 CHILD WELFARE: SOS EMBASSY FOR CHILDREN IN BERLIN

Ludloff Ludloff Architekten

20 THE FUTURE OF CHILDREN: VOCATIONAL COLLEGE IN REGENSBURG

Schulz und Schulz

28 CRÈCHE: DAY CARE CENTRE AT BAYER AG IN LEVERKUSEN

tr.architekten

36 FUN FOR KIDS: 'S BAD IN WALDKIRCH

Kauffmann Theilig & Partner

42 CORPORATE NEWS

46 TECHNOLOGY

48 ARCHITECTURE AND ART

Jochen Plogsties

50 RECENTLY IN... LEGO MINILAND

Lego figure Berry

51 PREVIEW

Living

IMPRINT

EDITOR

Hörmann KG Verkaufsgesellschaft
P.O. Box 1261
DE-33792 Steinhagen
Upheider Weg 94-98
DE-33803 Steinhagen, Germany
Telephone: +49 5204 915-167
Fax: +49 5204 915-341
E-mail: pr@hoermann.com
Internet: www.hoermann.com

Schörghuber Spezialtüren KG
P.O. Box 1323
DE-84536 Ampfing
Neuhaus 3
DE-84539 Ampfing
Telephone: +49 8636 503-0
Fax: +49 8636 503-811
E-mail: pr@schoerghuber.de
Internet: www.schoerghuber.de

EDITORS

Lisa Modest, Verena Lambers (Hörmann KG)

Architect's Mind GmbH
Stuttgart, Deutschland
www.architectsmind.de
Dr. Dietmar Danner
Daniel Najock
Christina Dragoi

PRINTING

Hans Gieselmann Druck und Medienhaus
GmbH & Co. KG
Ackerstraße 54
DE-33649 Bielefeld

This journal and all the articles and illustrations contained therein are protected by copyright. The publishing house and editors do not assume any responsibility for unsolicited photographs and manuscripts. Address data processing is handled by Heinze GmbH for Hörmann KG.
Printed in Germany — Imprimé en Allemagne

Cover photo: Andreas Muhs, Berlin, Germany



Classrooms: Often still a means to an end instead of architecture for children.

ABOUT THE TOPIC: CHILDREN

KNOW-IT-ALLS

ARCHITECTURE BETWEEN PARTICIPATION AND HELICOPTER PARENTS

by Päivi Kataikko-Grigoleit and Dirk E. Haas

Adults know how children perceive architecture and space. Or so they think. But if we're honest: Lots of us have forgotten how children think. Instead, helicopter parents worry about the well-being of their little ones, hardly letting them out of their sight and demanding stricter safety regulations. Is the result still architecture for children? Päivi Kataikko, founder of the association "JAS – Jugend Architektur Stadt" (Youth Architecture City), and Dirk E. Haas, believe that it should be built for children and not for parents.

For many architects, "building for children" is one of the tasks they approach with huge motivation: The social aspects of architecture are particularly evident in this field. Personal motivation is often also a contributing factor – as parents, for example, they acknowledge day care centres and schools as important and formative environments for their children.

Investment campaign

Architects currently have lots of opportunities to build "for children". The demand for day care centres and schools is particularly high. This means that many buildings are being built, renovated or extended. There are many reasons: They range from a considerable investment backlog in school construction to a general increase in the appreciation of education in society, as well as new requirements such as full-day care and inclusion, through to the legal right to a day care centre place, which has been in force in Germany since 2013. All of this goes hand-in-hand with government-funded investment campaigns in the areas of education and care. "Building for children" is therefore currently an important economic field of activity where, however, a lot is built under excessive time pressure – the demand must be covered now after all, and not in ten years time. However, time pressure

can quickly be at the expense of careful planning and building processes. Due to time-limited funding programmes, councils are practically forced to implement as many projects as possible within minimal time.

Phase 0

An important element of good planning processes is to involve the users – as early as possible. In other words: when formulating the planning tasks, but also during the latter planning stages when looking at specific draft solutions. It is often not just a case of a lack of time, but also financial constraints that lead to such upstream planning processes with the users. The HOAI does not include a "Phase 0"; many architects also lack the experience to carry out intensive planning processes with children and young people or to integrate the results in their own draft work. There is still a general fear that children and young people would bring utopian and ultimately unfeasible ideas to such planning processes. On top of that, there is a paternalistic attitude that leads to plans being made for, rather than with children and young people, because "we already know how to build for children and what's good for them".

Differentiated typology

However, if we look at how diverse buildings for children and young people have become, from day care centres to schools and cultural youth centres, this is impressive proof that there are certainly big differences in how we can build with and for children. It has a lot to do with the fact that pedagogical concepts are becoming more multifaceted, not to say more individual, leading to the same for the corresponding buildings. The standardised typologies that always existed in the history of school building are making way for increasingly individual solutions, which result from the specific demands on a school. However, such individual solutions only emerge if the users also formulate and introduce their practical knowledge concerning the specific needs of the school community. This creates schools that are separated into classrooms and department rooms in the conventional



Photo: Isegagne / iStock

Media is changing lessons – does that also apply to the classroom?

way but, in contrast to the past, are organised into more decentralised room groups. These are then allocated decentralised recreation rooms for pupils and decentralised team stations for the teachers. Alternatively, schools develop that already transform the principle of classrooms into differentiated learning landscapes, where learning and teaching takes place in various locations and with various forms of learning. Both – and all possible intermediate forms – exist today; building schools (or day care centres) is therefore a very varied and very individual construction task, especially as classic new builds are not the general rule, and conversions and extensions are required instead.

Digitalisation

With progressing digitalisation, entirely new possibilities for organising learning and teaching are also emerging: In the “flipped classroom” model, for example, the classic instruction phases in lessons can be replaced with prepared videocasts featuring the teacher, which can then be watched by pupils at home or at any other location inside or outside of school – and as many times as needed. Joint exercises then take place during lesson time in school and the teachers can use the time to offer pupils individual advice and support whilst they work on the exercise tasks.

Best places

Children and young people often have very clear ideas on how their school or certain areas of the school should be organised and designed. While children and young people often reproduce conventional room categories (classrooms, cafeteria, gym, etc.) and room atmospheres (bright, friendly, cosy, etc.) in a similar way to adults, they find it much easier to free themselves from constraints and combine spatial impressions in a different way, so that new perceptions of the spatial and functional qualities of learning environments develop. A practical example: When redesigning a primary school in the Ruhr region, the teachers and educationalists were initially in favour of clear, functional arrangements – learning areas here (classrooms and differentiation rooms),

rooms for recreation, relaxation and support over there – and they developed a corresponding concept on how the school should be organised. The pupils, in contrast, wanted rooms where they could learn as well as recuperate and relax. When pupils look for the “best” individual places to learn in school, these are often spread across the entire school and outside grounds. Sometimes it’s the window sill at the end of the corridor, sometimes the sofa in the group room, the little patch of grass next to the gym or the floor next to the book shelves in the little school library.

Heterogeneous preferences

The pupils’ preferences are therefore very diverse and are not restricted to the classic school learning rooms. Some children prefer to learn in large groups, others in small groups. Some prefer to talk with friends, whilst others look for safe havens where they can concentrate on learning alone. Contemporary schools that take account of the versatility in their pupils’ ways of learning and their needs and want to offer them optimal learning conditions should therefore be organised to be much more open and flexible than the conventional half-day schools of the past, separated into classrooms and departments. In the new concept for the above-mentioned primary school, the pupils’ preferences have been incorporated in the room concept: learning and relaxation have a stronger spatial connection. The result is multi-optional room groups that offer the pupils varied options, in the immediate vicinity of their year group cluster, as well as with a view to the entire school grounds, to learn in different places and in different atmospheres.

Fragmented experience with space

Children are therefore not a homogeneous target group. They have very different needs, interests and (aesthetic) preferences – even within an age group. Their individuality is no less distinctive than that of adults. The way in which they move around in their immediate environment, which locations and rooms they choose or avoid, is much less homogeneous than many adults – and also architects. Home life plays

an important role in the matter. Children who grow up in difficult family circumstances and have to organise things for themselves at an early age develop a different relationship to their environment than children who are overly protected by their parents. Children whose time is primarily organised and planned by their parents often lack spontaneous and independent spatial experience. They are brought to various locations in town, to music class, to their tutor, soft play, ballet or judo. This creates a jigsaw of places similar to islands, which children cannot perceive as a coherent space. Things are different for children who discover their immediate surroundings themselves and find their own way to school or the football pitch at an early stage. They are quicker to develop a sense of spatial connections and qualities. However, this does not mean that they would assess the qualities of the living environment in the same way, because their individual needs and interests differ just as little as the interests and needs in all other groups of the population.

Participation process as added value

Thankfully it is now becoming more common to involve children in the planning and design of places and facilities targeted at children and young people. These days, there would only be very few playground planning projects where children and young people are not involved in some way. It is often said that children and young people who take part in workshops or similar events in advance of planning and building processes are seldom the ones who will use the building once the work, which usually takes several years, is finished, as they are then older than the corresponding age bracket. However, in these cases, the children are basically acting on behalf of their respective age group in the participation processes – the quality of their ideas and the extent of their interests are not affected, especially as the participation processes themselves are valuable to children and young people. They are asked, listened to and can introduce their ideas. They develop know-how in matters of democratic and building culture education.



Photo: Imgorrhund / iStock

Children in forest nurseries play outdoors – and not just when the weather is nice.



Giving children security but letting them go their own way is not easy for all parents.

Author: Päivi Kataikko-Grigoleit

is a partner of the REFLEX architects_urbanists office, chairwoman of the association JAS – Jugend Architektur Stadt, and has been a research associate in the land-use faculty at TU Dortmund since 2002. Her specialist fields are urban development, urban design and urban land-use planning. She previously worked in various architects' offices in Finland, Sweden, Germany and the Netherlands. The main career focuses are in the areas of drafts, participative planning processes and educational architecture. She is a certified school building advisor of the Montag Stiftung.

Author: Dirk E. Haas

is a partner of the REFLEX architects_urbanists office with many years of experience in formal and informal urban development planning (other focuses: urban redevelopment, pedagogical architecture, spatial research). Dirk E. Haas was previously a research fellow and lecturer at TU Dortmund. He publishes on current issues in urban and regional development. From 2006 to 2013, he was an external consultant for the Montag Stiftung Urbane Räume and project manager of various projects focussing on "pedagogical architecture".



Photo: REFLEX architects_urbanists

The children's city

The involvement of children and young people in planning processes cannot, and should not, be limited to places and facilities specific to children and young people. Children and young people are inhabitants, and not just "consumers" in the town. They are also "co-producers" of urban life, in terms of the variety and urbanity that makes life in cities attractive for everyone. Several towns and communities have recently moved towards wanting to explicitly develop into child and teenager-friendly communities, and are putting forward the corresponding planning concepts. They have understood that child and teenager-friendliness is an important aspect for the quality of co-existence in towns. With a view to inter-community competition for inhabitants, child and teenager-friendliness is also a relevant location factor. Such development concepts cannot be developed without the participation of the corresponding target groups. Attention should be paid that children and young people are not only involved with typical subjects (day care centres, schools, playgrounds and sport fields), but also with issues of home building, traffic or the social and cultural features of the town. This has essentially been a mandatory task for councils since the 1970s when citizen participation was anchored in the building code. The instruments developed at the time (citizen meetings, formal disclosure of plans) are, however, hardly appropriate for the target group of children. The revision of the building code in 2013 explicitly named children and young people as participating members of the public for the first time. Suitable processes and methods must now be developed and tested for them to be involved. The funding bodies for urban development projects are also increasingly attaching importance to the obligatory participation of children and young people.

More quality of use

Planning with children and young people is therefore not a luxury and not just a "nice-to-have", even if this is the impression given in planning practice. The problems initially lie in "planning the planning", in other words: the preparation of planning steps and planning periods for a project. Careful planning preparation – including the relevant user groups and carried out before the actual draft planning – requires sufficient time so that the fundamental basis and quality targets can be developed together with the participants. This goes hand-in-hand with the question of financing: As long as there are no reliable planning budgets for work such as this "Phase 0", preparatory planning with children and young people in corresponding building work will remain an exception to the rule because of the extra expense. Many colleagues are still inexperienced in their work with children and young people because the work sometimes needs different methods to when adults are involved. Architects who do make the decision benefit from the creative intelligence of children and young people and from what can sometimes be unusual and surprising ideas. The planning periods are usually only slightly longer, but the result is spatial solutions that generally display more qualities in use.

CHILD WELFARE

SOS EMBASSY FOR CHILDREN IN BERLIN

BY LUDLOFF LUDLOFF ARCHITEKTEN







A striking open staircase leads up to the gallery.

An “Embassy for Children” where there are hardly any children to be seen – a paradox we need to explain. On behalf of the charitable organisation “SOS-Kinderdorf”, architects Ludloff Ludloff erected a truly multifaceted building right behind Berlin's central train station with very clear intentions – but ones you cannot see without taking a closer look.

SOS Children's Villages is a very well known aid organisation. There are twelve SOS Children's Villages in Germany, and a total of 567 worldwide – charitable German donors are the main financiers with their sponsorships. The fact that the “Embassy for Children” in Germany was built in Berlin-Moabit, and close to the centre of government, is therefore a logical consequence. After all, sociopolitical lobby work for children's rights is one of the main tasks here – alongside training its own employees and advising people seeking help. The Berlin Embassy for Children is, however, primarily dedicated to “former children”. After all, experience has shown that young adults with physical or mental disabilities often only have limited opportunities on the employment market once they have moved out of the Children's Village. With its integrated company “Rossi”, the Embassy for Children offers training and workplaces in event management, gastronomy and the hotel business.

Heterogeneous architecture

The mixture of functions did not make it easy for architects to find a homogeneous form. In fact, they did not even attempt to do so, but decided to make heterogeneity a topic instead. The building was given a fully glazed post-and-beam construction on the ground floor and first floor – the public areas can be seen behind with the reception, restaurant and hotel kitchen, as well as the conference rooms above. All other floors

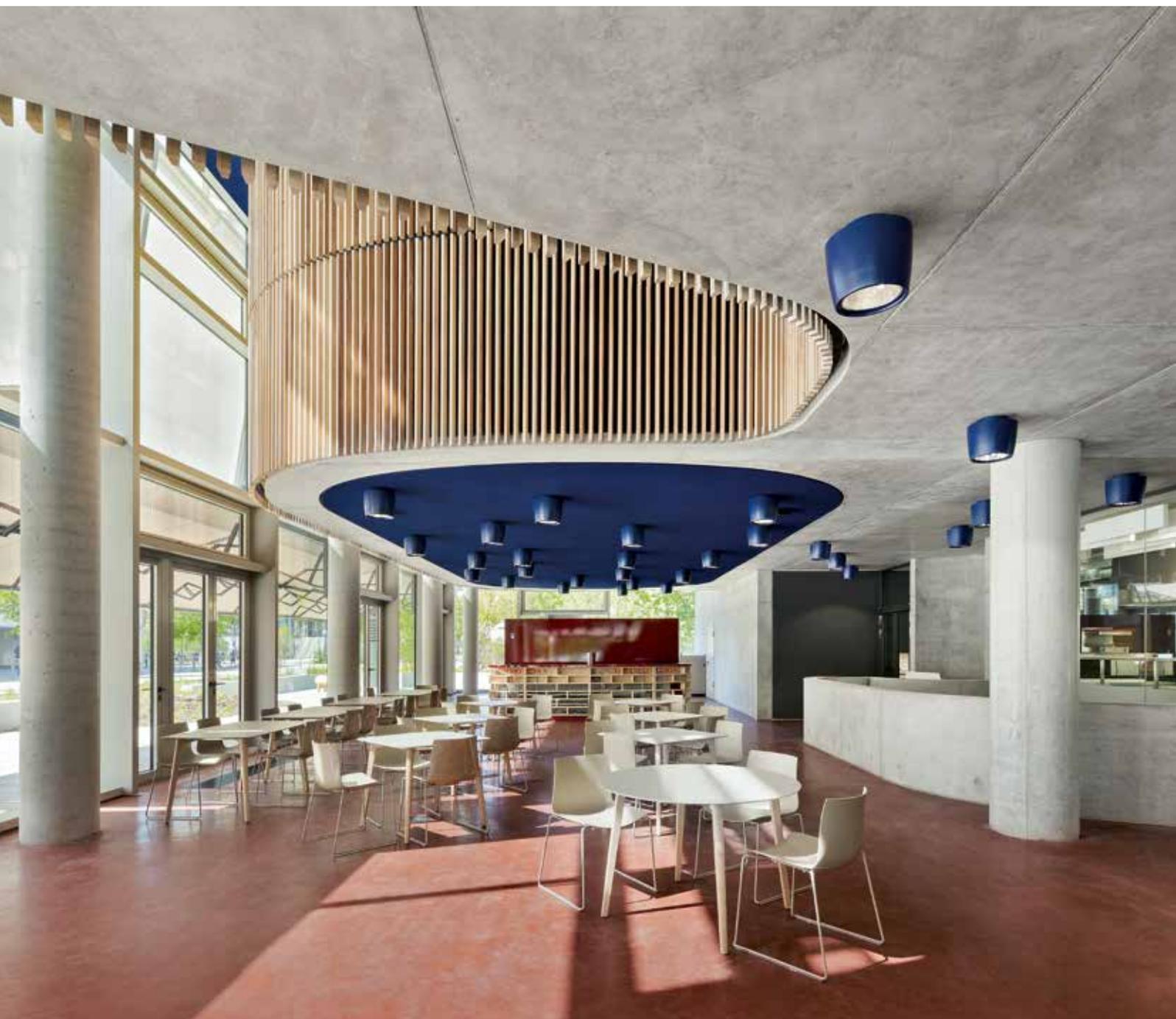
have facades in prefabricated timber panel constructions accommodating consultancy, administration and the two hotel floors. A “dress”, quite literally, made from textile membranes veils the building structure but does not reach down to the ground floor. It “flatters” the building torso and consciously leaves the “lower extremities” out so that the public can see inside. In areas that should be a bit more private, users can choose how much openness they want to offer. The slightly flared shade elements can be individually moved, so that the outside appearance of the embassy never remains the same.

Furniture from “own manufacturing”

The choice of materials and colour continues the heterogeneous theme on the inside. This is not an elegant congress centre because it certainly looks too much like a church community centre. However, the socio-pedagogical atmosphere does not take over, because the flashy show kitchen behind the large display windows almost conveys the impression of a gourmet restaurant. The hotel rooms are consciously kept simple, almost monastic. But because they are completed with internally designed furniture (produced in SOS workshops), they move into the category of a popular “designer” hotel.

Versatile cultural context

These constantly changing atmospheres are certainly not a matter of indecisiveness, but convey clear design intention. Ludloff Ludloff call this the “both-and” method, which anchors the building in the just as multifaceted cultural context of a locally established, yet world-encompassing network of Children's Villages and SOS educational institutes. Anyone who wants to succumb to this atmospheric variety is advised to spend a night in the integrated hotel Rossi. And when it comes to paying your room bill, the pleasant feeling of helping to protect the jobs of “former SOS children” in a world of work that would otherwise not be open to them is thrown in for free.



The play on colour and materials creates accents in the restaurant.



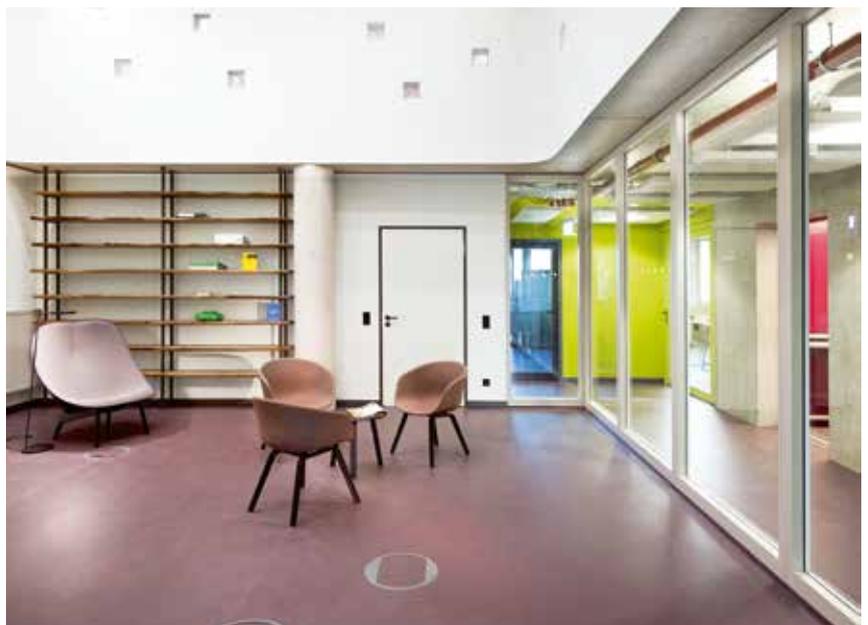
Open staircase to the 1st floor.



How colour is dealt with is just one of many references to the heterogeneous character of the building.



Hotel Rossi has 28 guest rooms.



The consultancy and administration level is located on the 3rd floor.



A small bar and the so-called "city balcony" top off the building on the 5th floor.



The smaller teaching rooms offer maximum transparency.



In many places, home technology is openly visible. Textile sails somewhat soften the technical impression in some areas.

Schörghuber expertise: Special doors for every application

There are a number of door types from Schörghuber in the SOS Embassy, which have been adapted to the various application areas: Single and double-leaf solid doors, frame doors with a small frieze width for high transparency, acoustic-rated doors for the training rooms and hotel room entrance doors, fire-rated doors and wet room doors with steel frames for sanitary areas. The doors feature just as many colour schemes as there are different types: Many of the 181 Schörghuber doors are supplied with a premium coating in light pink, lavender, subtle green, ochre and olive, as well as in bolder red and

brown hues. The colour scheme is mostly derived from the wall colours in the immediate vicinity. Doors surrounded by unplastered concrete, for example, have been painted in Silk grey. Some of the doors – especially the hotel room doors – have steel frames adjusted to the colour of the door leaves. Steel frames are particularly robust and able to permanently withstand high loads. The hinges on timber fire-rated and smoke-tight doors from Schörghuber feature a securing pin that ensures that the door leaves cannot be simply taken off their hinges.



The narrow frieze widths allow light to enter the meeting rooms through generously sized glazing cut-outs.



The perfect colour-matched door.



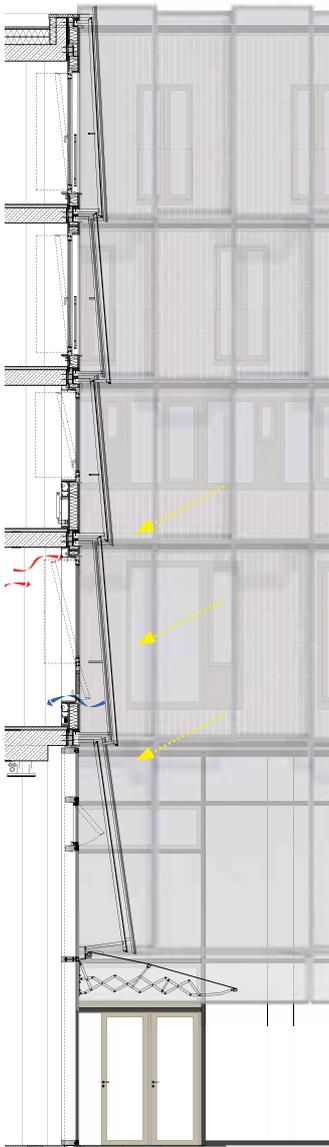
Acoustic-rated doors from Schörghuber are the entranceways to the conference room.



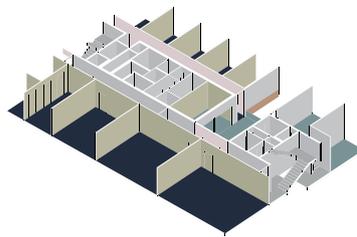
Several doors have excess widths and are therefore fitted to four hinges.

Location: Lehrter Straße 66, 10557 Berlin, Germany
Owner: SOS-Kinderdorf e.V., Berlin, Germany
Architect: Ludloff Ludloff Architekten, Berlin, Germany
Support structure planning: Arup Deutschland, Berlin, Germany
Light planning: Licht Kunst Licht, Berlin, Germany
Gross floor area: 4354 m²
Completion: 2017
Photos: Werner Huthmacher, Berlin, Germany
Processor: Giese Trockenbau, Coswig, Germany
Schörghuber contact person: Frank Pankalla /
 Romuald Ohsmann, Berlin, Germany

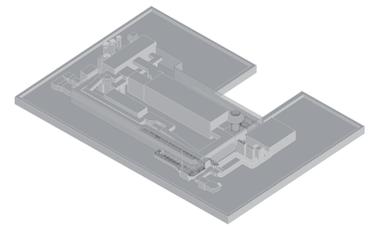
Schörghuber products: Solid core doors type 16, T30 fire-rated / smoke-tight solid timber frame doors type 25, T30 fire-rated / smoke-tight / acoustic-rated doors $R_{w,P} = 32$ dB type 16, T30 fire-rated / smoke-tight / acoustic-rated doors $R_{w,P} = 32$ dB double-leaf type 26, T30 fire-rated / smoke-tight / acoustic-rated solid timber frame doors double-leaf type 27, fire-rated / smoke-tight / acoustic-rated doors $R_{w,P} = 37$ dB double-leaf type 6, solid timber frame, solid core doors type 1, wet room door leaves type 1, acoustic-rated door leaves $R_{w,P} = 32$ and 37 dB type 1, acoustic-rated door leaves $R_{w,P} = 42$ dB type 5, T30 fire-rated / smoke-tight doors type 3
Hörmann products: 2-part steel corner frames for retrofitting in bracket clamp fastening



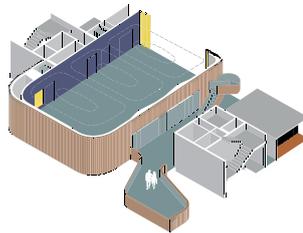
Facade section



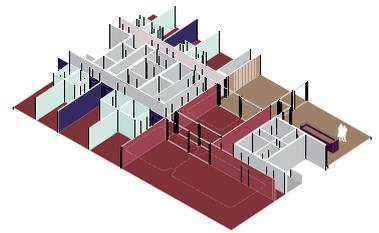
2nd floor: Training, consultancy



Roof: Home technology



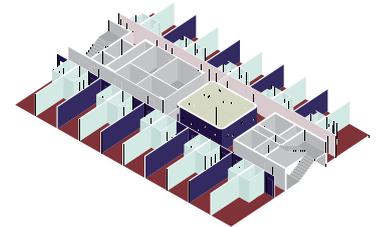
1st floor: Conference.



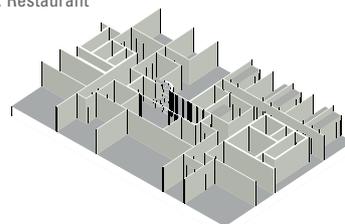
5th floor: Bar, conference, accommodation



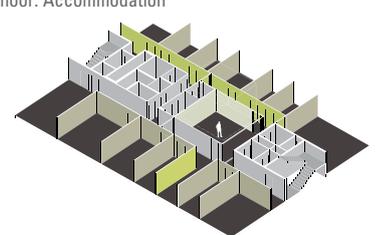
Ground floor: Restaurant



4th floor: Accommodation



Basement: Preparation kitchen, changing rooms, home technology



3rd floor: Administration

Usage diagram



BERUFLICHE OBERSCHULE REGENSBURG

THE FUTURE OF CHILDREN

VOCATIONAL COLLEGE IN REGENSBURG

BY SCHULZ UND SCHULZ



The race between school construction and educational concepts is a bit like the race between the hare and the tortoise. However hard the architecture hare tries, the education tortoise seems to have long been there. Architects Schulz und Schulz have decided to turn down this hopeless duel.

Buildings seem to be determined by their function – at least, this is what you might think when looking at the old Regensburg barracks. The meanings attached to them can, however, be stretched to the maximum. In the south of the city, the National Socialists built anti-aircraft barracks, which were then seamlessly used by US troops as Fort Skelly and afterwards continued use as Nibelungen Barracks by the German Army. Once the last soldier had left the building and the grounds had been cleared, architect brothers Ansgar and Benedikt Schulz won the competition to build a new “vocational college” in 2012.

Continuation of the modern

And because Schulz und Schulz are known as supporters of the classic modern Bauhaus style, their draft certainly did not come as a surprise. Just like their previous buildings, they dedicated themselves to a careful continuation of the modern style – or its conservational preservation (depending on how you look at it). Their model in the case of Regensburg: Bernau trade union school by the former Bauhaus director Hannes Meyer from the year 1930 – a model for so many school buildings in Germany. Based on Meyer, they staggered several identical building sections following the sloping ground and connected them inside with split levels. And because the new college has three main specialist subjects, as a logical consequence, there are three building sections to be staggered – supplemented by a gym, communication zones and administration. The facade

is characterised by brickwork in a special flattened format – but even more by the very accurately drafted details that are entirely designed in a uniform material without edges or metal facing.

Lifeline

Schulz und Schulz call the access corridors in their school “promenades”. And they describe them as “flexible-use communication zones”, which allow “individual forms of learning in open learning landscapes in addition to teacher-centred teaching”. The ability of buildings to adapt to changing interpretations of the same function thus not only seems to apply to the barracks mentioned at the beginning. For school buildings, this is actually a lifeline, because they are otherwise forced to follow each new pedagogical trend just like the hare runs after the tortoise. A little reminder: In the fable the hare agrees to a race with the tortoise and (without realising it) finds the tortoise's lookalike (the identical looking tortoise lady) at the finishing line who confidently states: “I'm already there”. After the 73th rematch, the hare falls down dead – he didn't have a chance in the first place. One educational reform has followed the next in Germany since the 1960s – and architecture cannot win this eternal race.

Permanent approach

The exemplary layout solution from Schulz und Schulz, following the Meyer example, is more than 80 years old and is just as timeless and functional now as it was then. Experience has shown that the half-life period of a federal educational reform is much shorter than the lifespan of a building typology. It may not be very innovative at first glance, but the lasting school construction approach by Schulz und Schulz is justified by its long-term legitimacy. And the striking architectural design of Regensburg College has been consciously chosen to withstand the test of time.



The building is divided into three wings corresponding with the three specialist subjects.



The entire building is homogenously covered by a grey beige brick facade made from hand-painted special-format stones.



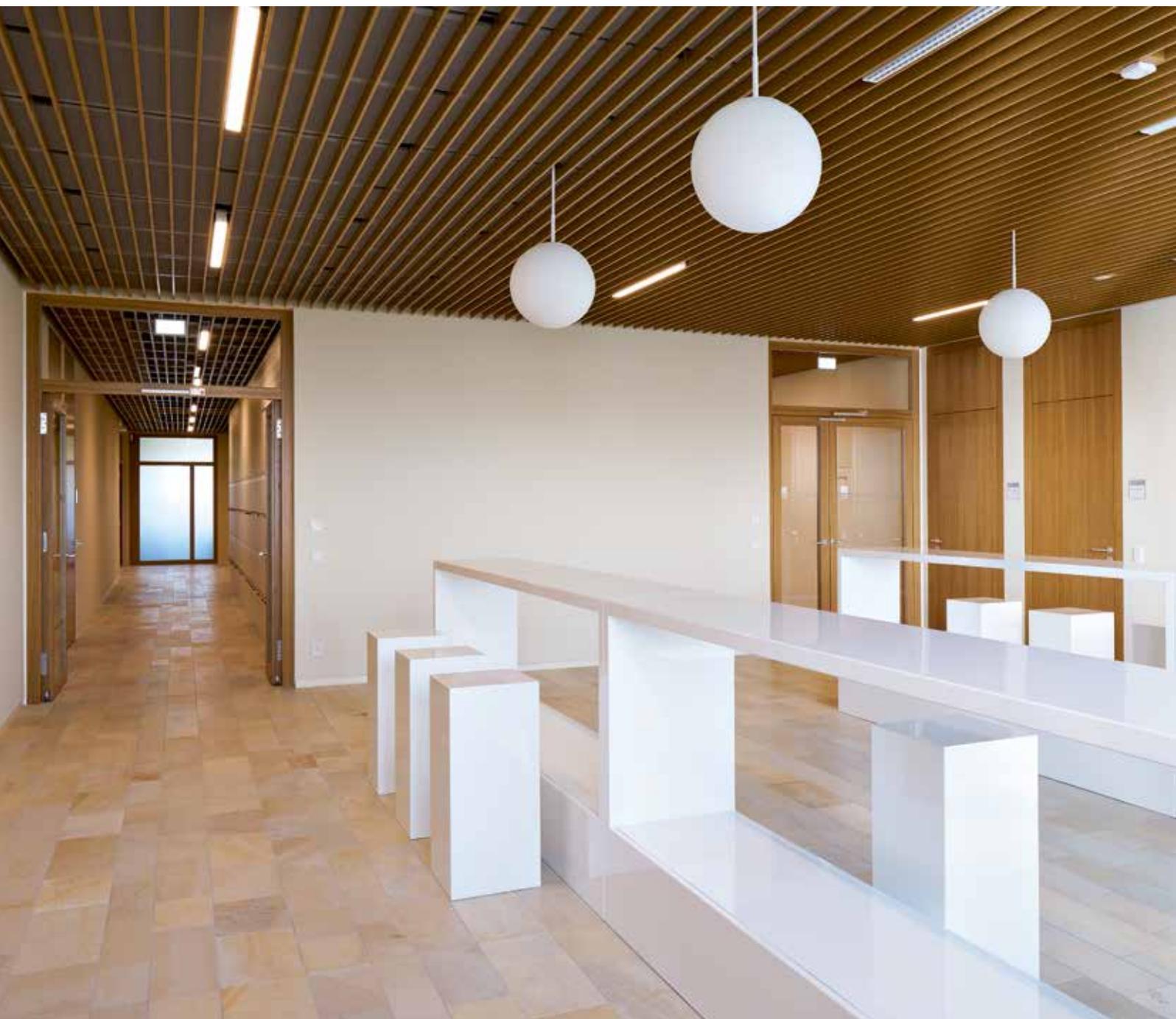
Large windows provide a balanced supply of daylight.



The transparent ground floor conveys an “open” impression. The canteen also serves as an interface to extracurricular offers.



The generous-sized glazing lets plenty of natural light into the sport hall.



Communication zones facilitate alternatives to teacher-centred teaching.

Schörghuber expertise: Doors in school construction

Door leaves and timber frames are often fitted in the “day care centre version” in schools. The edges of this version are rounded in accordance with the German statutory accident insurance (GUV) directive to prevent injuries. After all, young adults tend to rush around the corridors in schools too. Doors in schools are subject to high physical loads. Around 1400 pupils move around the Vocational College Regensburg and the doors are used at a corresponding rate. Schörghuber doors comply with duty category 4 (extreme) as standard and withstand these requirements without any problems. Alongside durability,

the requirements of fire and smoke protection, as well as acoustic insulation, had to be fulfilled: Acoustic-rated doors, often featuring a fire safety function, were used in the classrooms to stop lessons being disrupted by noises from the corridors. T90 or T30 fire-rated doors provide fire protection in the building. Some are designed with very narrow frieze widths to create maximum transparency with large glazing cut-outs.



Transparency thanks to storey-high glazing.



To avoid disturbances during lesson time, glazings to classrooms are opaque.



The doors appear to be room-high thanks to transom panels. The clear passage width of the fire-rated and smoke-tight door can be extended if necessary.

Location: Fort-Skelly-Straße 31, 93053 Regensburg, Germany

Owner: Stadt Regensburg, Germany

Architect: Schulz und Schulz, Leipzig, Germany

Support structure planning: Lammel, Lerch & Partner, Regensburg, Germany

Gross floor area: 22,700 m²

Gross volume: 89,100 m³

Construction costs: €42 million

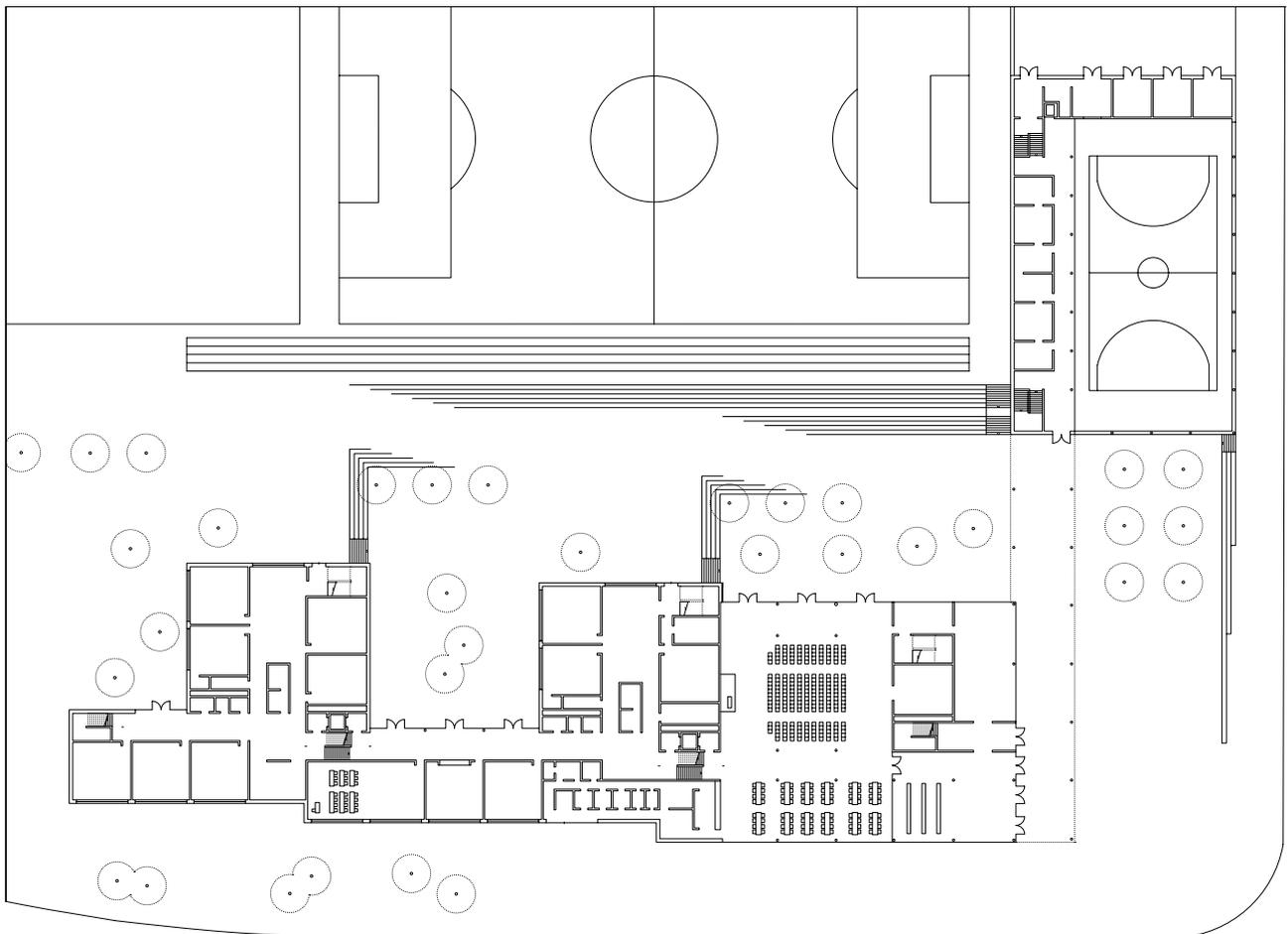
Completion: 2016

Photos: Stefan Müller-Naumann, Munich, Germany / Andreas Muhs, Berlin, Germany

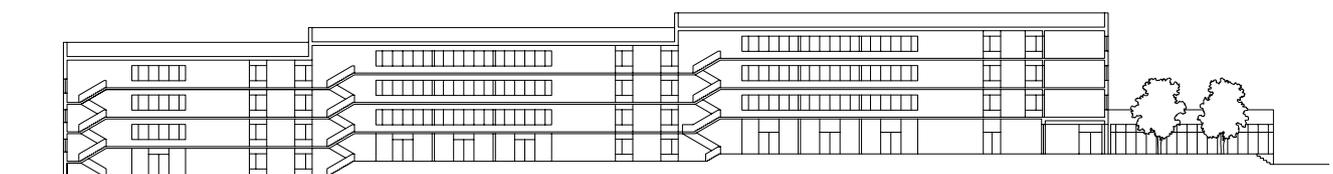
Processor: Nesper Burgebrach, Rienth Winnenden, Germany

Schörghuber contact person: Robert Feldlin, Nurnberg, Germany

Schörghuber products: T90 fire-rated / acoustic-rated door $R_{w,P} = 37$ dB type 8, T30 fire-rated / smoke-tight / acoustic-rated door $R_{w,P} = 32$ dB type 3 and 16 with transom panel, T90 fire-rated / smoke-tight / acoustic-rated door $R_{w,P} = 37$ dB type 8 with transom panel, T30 fire-rated / smoke-tight / acoustic-rated door $R_{w,P} = 37$ dB type 13 and 5 with transom panel, T30 fire-rated / smoke-tight / acoustic-rated door $R_{w,P} = 32$ dB double-leaf type 26 partially with transom panel, T30 fire-rated / smoke-tight / acoustic-rated solid timber frame doors $R_{w,P} = 32$ dB double-leaf type 27 with transom panel, T30 fire-rated / smoke-tight / acoustic-rated solid timber frame doors $R_{w,P} = 32$ dB type 25, T90 fire-rated / smoke-tight / acoustic-rated solid timber frame door $R_{w,P} = 32$ dB double-leaf type 92, F30 and F90 fixed glazings 25V/90V, rebate frames, solid timber frames and door leaf edges rounded in "day care centre version"



Floor plan of the ground floor



Section



CRÈCHE

DAY CARE CENTRE AT BAYER AG IN LEVERKUSEN

BY TR.ARCHITEKTEN





Do you think the children keep everything as tidy at home?

The value of so-called “child-friendly construction” is obviously being clearly overestimated. The children of “Bayer” employees certainly accepted their new and rather unusual company day care centre, the “Löwenburg”, in a flash. The teachers needed a little more time.

Anyone approaching the day care centre for Bayer employees’ children can make a direct comparison. Visitors first see the day care centre for the children of Lanxess employees – and it clearly follows a very traditional path: Colourful, tightly structured and the respective group of children is offered a clearly allocated home in the building. And the building can be clearly recognised as a day care centre from a distance. The new build by tr.architekten for Bayer was recently built directly opposite – and it could easily pass as the international training centre for the corporation’s PhD chemists. The elegant, large ellipse shape with white chalked timber cladding as well as the massive driveway with over-sized car park for the managers’ company cars are clear evidence. And the stainless steel slide reflecting the sunlight is probably used for interactive team-building amongst Bayer experts during conference breaks.

Soft skill: Day care centre

Inside, as you would expect, a reception counter obscures the way to the two-storey concourse. The bright green floor covering is reflected by the radiant white plastered walls basked in the natural light coming from the ceiling glazing. The business image would be perfect if the receptionist wasn’t reading a fairytale. The building that doesn’t look like a day care centre at all is just the final development stage, for the time being, of a construction task that is no longer just a matter for state and church operators. For companies with a need for qualified specialists, providing a space for the kids is one of the “soft skills” when attracting new staff.

And because demand is so high, day care centres are constantly growing in size. 125 children are accommodated in 8 groups in Leverkusen. The nursery teacher, at least, does not know of any similarly large facility – and had to try hard to get used to the building’s dimensions at the beginning. The Löwenburg children had no problem. They quickly took over all 8 group rooms, 16 side rooms and the many functional rooms. And the sober white walls became a welcome background for changing decorations.

Model for the future

The day care centre is operated by DRK – and tr.architekten developed the rooms to suit the pedagogical concept of a semi-open day care centre. An explanation: Traditional day care centres provide group rooms and give the children a distinct space. The open day care centre approach does not recognise this concept and sends the children from functional room to functional room. One room is for crafts, another for painting and the children sleep in another. The semi-open concept is logically a cross between the two. The orientation map posted at reception shows an entertainment programme in the functional rooms that would amaze any Club Med holiday entertainer. The architects were given the opportunity to implement a day care centre in the passive house standard. The reinforced concrete construction was supplemented with highly insulated, prefabricated facade elements. The high amount of daylight reduces energy consumption. Underfloor heating is powered by solar collector tubes and gas condensing boiler technology. And when the shift is finished in the neighbouring “Bayer Chempark”, it’s suddenly clear why a gigantic driveway is needed. Dozens of children are picked up by their parents to go home minute after minute – and they don’t seem to have a problem with not growing up in the traditional small-scale day care centre architecture of the past, but in a centre that is obviously the model for the future.



The interior was kept as plain as possible by the architects. Built-in furniture is intended to help keep the rooms visually “calm”.



The reduced architecture is there to provide a stage: The children are the ones giving life and colour to the building.

Schörghuber expertise: Day care centre doors

Protection against injuries is clearly the main focus of day care centre doors. How quickly can a child trap their fingers or bump against edges? Day care centre doors must fulfil special requirements. Schörghuber offers the so-called "Softline version" for timber frames. All edges are provided with a radius of 3 mm. The door leaf edges are equipped with the "day care centre version" and are thus also rounded. But there are more hazards. A gap is inevitably produced between the door leaf and frame when the

door is opened. To stop curious little ones from putting their fingers inside, the gap is sealed with a finger protection roller. They are fitted to the door leaf and frame on-site and are even approved for fire-rated doors. Glazing cut-outs also reduce another danger: The children can see whether there is anyone on the other side of the door and open it with the due care. Acoustic-rated doors were used so that the children are not disturbed in the sleeping rooms.



Door closers stop the doors from being slammed.



Just like in all day care centres, pictures are hung up everywhere – including on the doors.



Finger protection rollers are designed in white to keep them as subtle as possible. A glazing cut-out shows the children who is behind the door.



Location: Kurtkottenweg 15, 51373 Leverkusen, Germany

Owner: Bayer Real Estate GmbH, Leverkusen, Germany

Architect: tr.architekten, Cologne, Germany

Energy: IPJ Ingenieurbüro P. Jung, Cologne, Germany

Gross floor area: 3070 m²

Gross volume: 12,500 m³

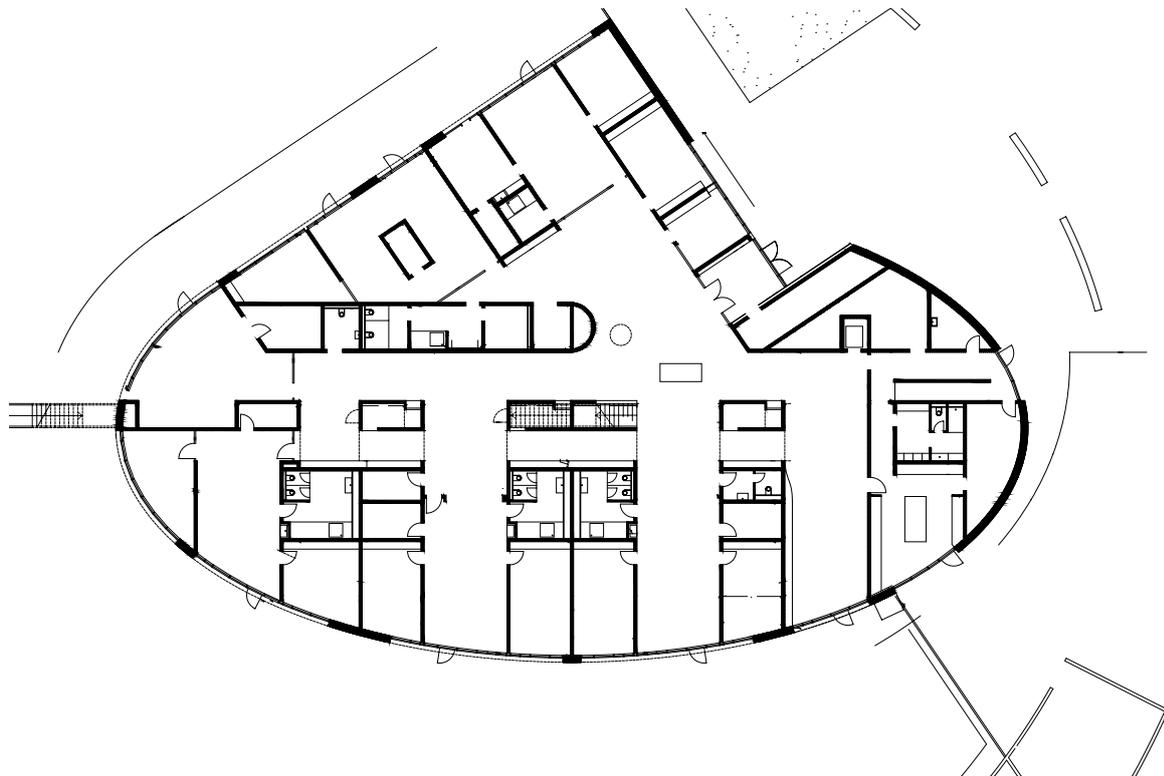
Completion: 2016

Photos: Andreas Muhs, Berlin, Germany

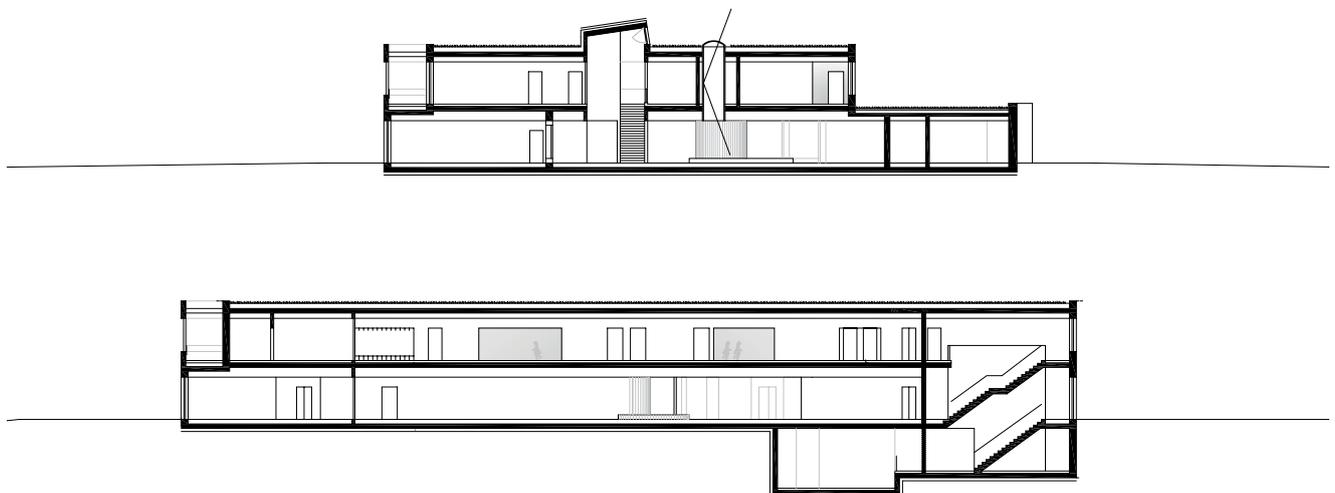
Processor: Terhalle, Ahaus, Germany

Schörghuber contact person: Wolfgang Marx, Lippstadt, Germany,
and Christian Haller, Weilerswist, Germany

Schörghuber products: T30 fire-rated/smoke-tight doors type 1, solid core doors type 1, smoke-tight/acoustic-rated doors $R_{w,P} = 37$ dB type 1 with glazing cut-out, acoustic-rated doors $R_{w,P} = 42$ dB type 13, acoustic-rated doors $R_{w,P} = 37$ dB type 1, solid core doors double-leaf type 4, timber infill frames "Softline version" rounded, solid core doors type 3 with solid timber frame "day care centre version" rounded, smoke-tight/acoustic-rated doors $R_{w,P} = 37$ dB type 13 with rebate frame, solid core doors type 3 with timber block frame



Floor plan of the ground floor



Views

Lars Rössing about day care centre doors

Lars Rössing is Managing Director of tr.architekten. The day care centre in Leverkusen is not his first building from the “educational building” category. The experienced architect explains how day care centre doors are handled.

What are the specific requirements of doors for day care centres?

Because children often cannot judge doors properly, their safety in particular is at the heart of our endeavours. Their curiosity causes them to stick their fingers in everywhere – and there is plenty for little ones to discover around doors too. One second of carelessness and the fingers are trapped. The manufacturers offer several solution options to stop this from happening. The doors in the day care centre in Leverkusen are provided with a finger protection roller. This way, at least they cannot trap their fingers on the hinge edge. Other requirements are, of course, fire and smoke protection, and acoustic insulation.

How do you meet these requirements during planning?

This type of equipment often contrasts with functional and design aspects: Appropriate doors have a relatively heavy weight. On the one hand, this makes them difficult for children to use and, on the other hand, the door closes more heavily. This would result in more serious injuries for children, especially if fingers were to become trapped on the lock edge, for example. Functional protection cannot be guaranteed here. In fact, we're not really happy with the finger protection rollers on the hinge side. This solution doesn't really gel with our ideas from a design point of view – but we understand, of course, that it is the best possible protection on the market at the moment. We would, however, want an even more intelligent and more attractive solution.

Which questions do you ask the manufacturer's architect consultants?

We also speak about design solutions with the manufacturer's architect consultants. They are aware that



we, as architects, would want further developments for safety functions and I'm confident that the corresponding solutions will be available in the near future. Apart from that, we generally ask to be updated – both with regard to technical developments and with regard to approvals and regulations.

Which role is played by colours and surface materials in day care centre doors?

Especially in day care centres, we want to create pared-back rooms. It's the users that introduce life and colour. Our architecture should “only” provide the framework. Colour – for example – on doors as orientation is something we don't use.



The door remains pared-back and neutral. The users provide the colour.

Christian Haller and Wolfgang Marx about the requirements

Architect consultant Christian Haller from Schörghuber spoke with tr.architekten in advance of the project “day care centre at Bayer AG in Leverkusen”. The topic of trap protection was already discussed at the time.

“Architects have numerous requests and questions about doors for day care centres. It is often about colours. They also have questions about glazing cut-outs, which we are pleased to answer with varied solutions. Trap protection is a more difficult subject. The gap between the door leaf and frame can be minimised with concealed hinges. However, one hundred percent protection is only possible with finger protection rollers and steel round frames – but architects aren't always keen on that from a design point of view. Another topic for architects is cast PU edges for timber frames and door leaves, which have an edge radius of 3 mm from the factory. They are extremely strong, compatible with detergents and can be adjusted to the colour of the door leaf.”



Christian Haller



Finger protection rollers in day care centres provide effective trap protection.

Wolfgang Marx from Schörghuber advised the processor Terhalle on the practical implementation of the project. He is aware of the demands placed on doors and knows that Schörghuber has professional solutions.

“Safety takes top priority in day care centres and nurseries, so timber infill frames and door leaves are designed with an edge radius. Access control systems and various lock systems also help to ensure that the children do not escape unnoticed. Doors adjusted to the colour of the facility help with individual development and conceptual implementation of pedagogical aspects. A large selection of HPL laminates is available for design purposes. They are durable, hygienic and particularly long-lasting. Glazing cut-outs in various shapes and positions offer a view inside the rooms and let light into the rooms and corridors.”



Wolfgang Marx



FUN FOR KIDS

'S BAD IN WALDKIRCH
BY KAUFFMANN THEILIG & PARTNER





The main building is hidden in the almost naturally looking, hilly shaped landscape of the pool.

“s Bad” in Waldkirch is the negation of architecture. Anyone who doesn't know that it exists will have difficulty finding it. However, at the same time it is a perfect example of the role of confident building culture. A wonderful paradox that needs an explanation.

A knee-high puddle is enough for children to have fun. Puddles, however, rarely meet parents' current demands on hygiene and safety – and village ponds and swimming lakes have become even rarer. Instead, public bath facilities have long been a steadfast element of council services. Since the 18th century, these baths have emerged close to natural waters. Waldkirch's outdoor pool also stood on the banks of the Elz, a small Black Forest river – and Stuttgart architects Kauffmann Theilig & Partner did not change this setting when constructing the new building. But that's just about all.

The Shires

Only the signs and a full car park suggest that local children from the Black Forest (and those of tourists) spend the hot summer days here. Neither the usual noise level for outdoor pools nor any typical buildings point the way. Instead, visitors approach a green hill that would be right at home in the Hobbit Shires in J. R. R. Tolkien's "Lord of the Rings" – but obviously the design is better in Waldkirch. A curved concrete disc cuts open the hill and creates the main entrance as an inviting tunnel portal. All the necessary facilities such as changing rooms, toilets, showers and technology rooms are found behind it. Pool guests then enter the heart of each pool through the second large sized portal. The pools lie behind these artificially created green hillocks – framed by the picturesque hills of a landscaped park.

From a functional viewpoint, the new range of hills have the

task of shielding the swimming pool from neighbouring sports facilities. Above all, however, it creates an almost natural looking mountain ridge planted with bushes and flower beds. Pool guests quite naturally use it as an intimate bathing area with an unobstructed view of the Black Forest. Anyone who wants to sunbathe in a more prominent position (or wants to keep an eye on the kids) can use the elegantly covered wooden patios called the "Lounge". Its plinth is the last remainder of the old outdoor pool building and now serves as storage and changing rooms for the sports facilities at the rear. But its main purpose is to reliably keep the noisy fun had by squealing children and the characteristic sound of the bouncing diving boards away from the houses located next to "s Bad".

Not off the peg

Kauffmann Theilig & Partner did everything they could to make the Waldkirch pool an experience to remember for children and their parents. The leaky pools from the year 1968 were replaced with stainless steel pools. And the new fun pools made of overlapping circles are now equipped with rapids, slides, jets and neck showers. When furnishing with benches, wooden patios and diving platforms, the architects did not consult the standard catalogues of outdoor pool furnishers but fulfilled their task as designers. The "s Bad" is therefore as characteristic in its details as in its entirety and certainly not a collection of exchangeable pieces of scenery in a fun piece of architecture. When architecture almost incidentally accompanies and enriches the lives of people, then it has been truly successful. Waldkirch pool does this in such a natural way that its users could almost forget that it is a designed environment. When architecture manages to create child-friendly but certainly not childish spaces, then it has fulfilled its main task without placing itself prominently in focus. And there is hardly anything better you could say about architecture for children (and not only for children).



"Lengths" can also be swam in "s Bad", but ...



... children much prefer to use the fun pool with rapids and slides.



Elegant effect: A mix of concrete and timber look material, as well as indirect lighting.



A diving platform can also have a sculptural appearance.

Hörmann expertise: Function and multi-purpose doors

The outdoor pool's technology and storage rooms were equipped with sheet steel doors from Hörmann. One of them is a T90 steel fire-rated door, which prevents the flames from spreading to another part of the building in case of a fire. The D65 multi-purpose doors made from steel, which are approved for use in external walls, allow access from outside to the technology rooms. In the bottom section of the doors, so-called door drips were fitted to protect the doors against rain. The transom panels on multi-purpose doors provide a room-high door view.



Material mix: Wood panelling, concrete wall and anthracite coloured steel sheet door.



The multi-purpose doors are kept in anthracite.



A small entrance door leads from inside the building to the technology room.



The double-leaf sheet steel door from Hörmann leads from the poolside to the technology room. Right next door: The lifeguard's office

Location: Schwimmbadallee 1, 79183 Waldkirch, Germany

Owner: Stadt Waldkirch, Germany

Architect: Kauffmann Theilig & Partner, Ostfildern, Germany

Construction management: KTP with SOE Architekten, Stockach, Germany

Outdoor facilities: KTP with frei raum concept, Stuttgart, Germany

Support structure planning: Breinlinger Ingenieure, Tuttlingen, Germany

Building and pool technology: IGP GmbH, Pforzheim, Germany

Construction physics: W&W Bauphysik, Leutenbach, Germany

Survey: Ingenieurbüro Asal+Pfaff, Merzhausen, Germany

Gross floor area of entrance building: 1830 m²

Gross volume of entrance building: 4600 m³

Total area: 16700 m²

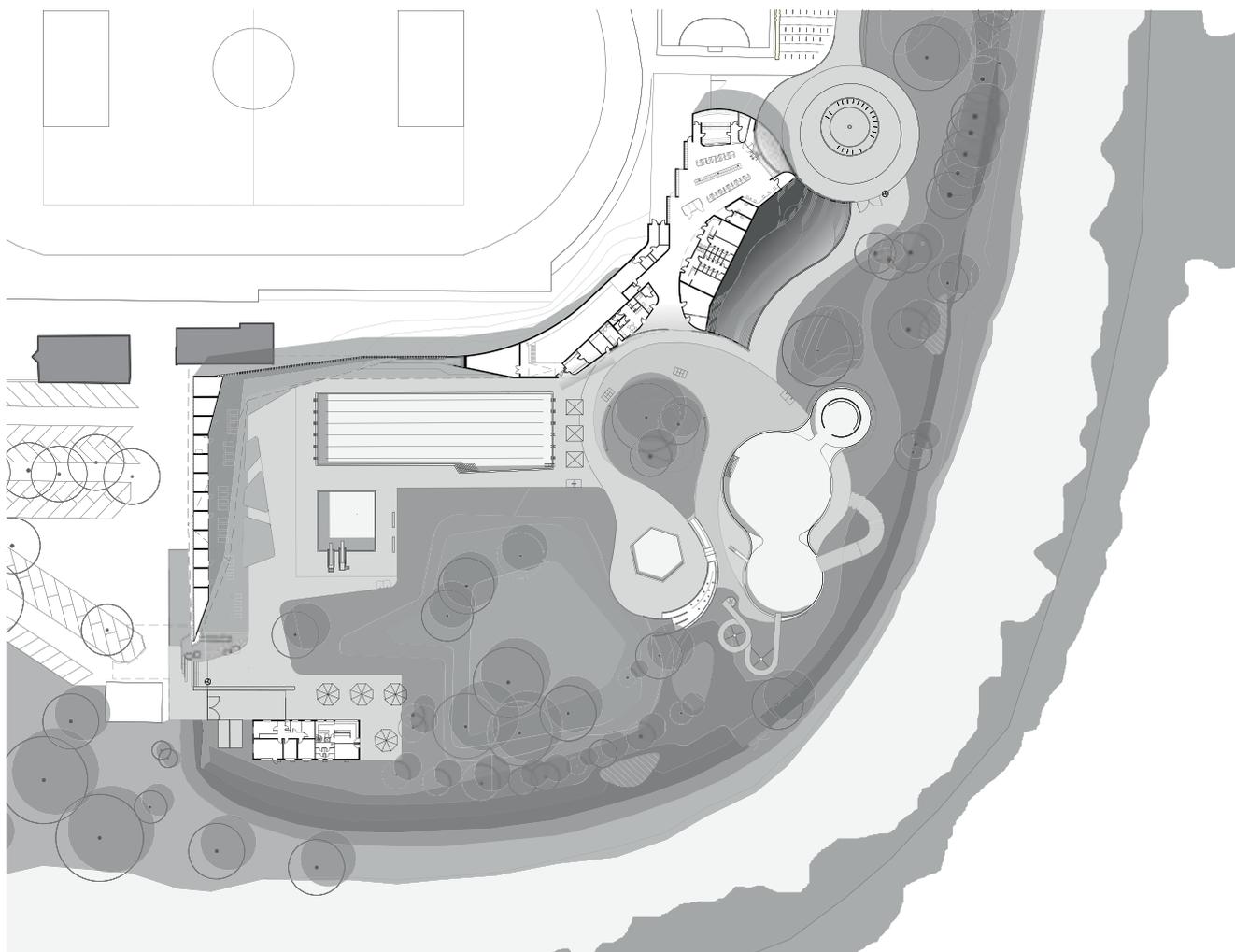
Water area: 1850 m²

Completion: 2016

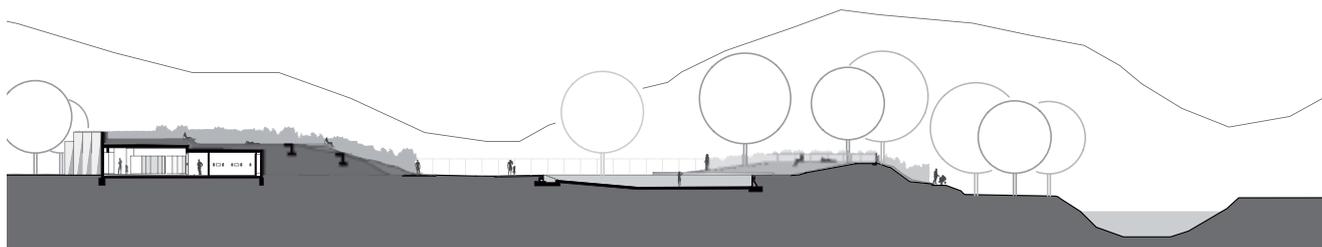
Photos: Stephan Falk, Berlin, Germany

Processor: Schwarzwald-Eisenhandel, Lahr, Germany

Hörmann products: T90 steel fire-rated door H16, steel smoke-tight door RS55, steel multi-purpose doors D55/D65, steel corner frames, block frames



Floor plan



Section

PERIMETER PROTECTION SYSTEMS HÖRMANN EXTENDS ITS PRODUCT RANGE

At the end of 2016, Hörmann took over the majority of shares in the Italian company Pilomat, one of the world's leading providers of bollards, road blockers, barriers and tyre killers. These products for perimeter protection in private, commercial and public areas are now also on offer under the Hörmann brand. The new product range from Hörmann covers two product lines: With Security Line, Hörmann will offer bollards for perimeter protection for private and public areas such as pedestrian zones, car parks and company premises. Products from the High Security Line allow perimeter protection in high

security areas such as government buildings, airports, event grounds or other sensitive areas. The High Security Line includes reinforced bollards as well as road blockers for passages up to six metres wide, barriers for passages up to ten metres wide and tyre killers, which allow passage in one direction and prevent driving in the opposite direction by slashing the tyres. Their strength is certified through internationally approved crash tests performed by independent testing institutes. An optional EFO control (Emergency Fast Operation) is available for emergency situations, which allows the products to be raised within 1.5 seconds. The range covers automatic, semi-automatic, fixed and removable bollards. For example, the building on a company's premises

can be secured with fixed bollards all around, whilst the entrances are equipped with automatic bollards that raise and lower hydraulically or electromechanically. The advantage with Hörmann: All bollards match. Hörmann supplies the matching operating accessories, such as key switch posts, hand transmitters, code switches, finger-scans and much more, to go with perimeter protection products. All automatic products can be combined with the BiSecur radio technology developed by Hörmann, characterised by its particularly secure encryption method.



Pictures: Hörmann

The bollards integrate into the architecture.



No access: This entrance is protected with fixed bollards and a road blocker.



Photo: Maxiphoto / iStock

Specification aid: All relevant information is available in BIM data.

BIM DATA FOR HÖRMANN PRODUCTS

BIM (Building Information Modeling) plays a major role in the digitalisation of the building industry. An entire construction project can be illustrated in a digital model with BIM, which pools and centrally retrieves all relevant information on planning, implementation and management. In future, Hörmann will provide information on construction components as BIM data. By using BIM, all those involved with the construction have constant access to the latest planning status and communicate across the trades during the complete building process. Changes are constantly updated to increase planning quality. Recorded

data, which creates the basic source of information, is fundamental to the use of BIM data by architects, engineers, constructors or facility managers. This includes current and exact manufacturer data on the planned products. Hörmann will therefore be successively offering BIM data for the product range from autumn. This allows architects and planners to access three-dimensional illustrations of the construction components from the door manufacturer and to already view the digital image including all production information and variants before fitting.

HÖRMANN COOPERATES WITH DAY CARE CENTRE

At the Hörmann Group headquarters in East-Westphalian Steinhagen, the company cooperates with the local children's day care centre Emmaus. A building extension to the existing day care centre in 2014, which was largely financed by Hörmann, created new nursery places. These are available to the children of Hörmann employees, amongst others. The company aims to promote the compatibility of job and family, as one of the largest local employers. The development of services on offer also includes care for under-threes, an in-house kitchen to prepare fresh meals and longer opening times from 7.00 to 17.30.



Authorised road users can let the bollard sink into the ground using a hand transmitter.



Photo: Csaba Meister

Emmaus day care centre in Steinhagen.



Pictures: Schörghuber

The steel frame is particularly long-lasting because it withstands the loads in day care centres, nurseries and schools without damage to the material.

STEEL ROUND FRAME FROM SCHÖRGHUBER: EXTRA SAFETY IN DAY CARE CENTRES, SCHOOLS AND MORE.

There is one major priority in nurseries, day care centres and schools, safety. Accident prevention is one of the most important planning aspects in children's playing and learning spaces. Schörghuber therefore developed the "day care centre version" of the steel round frame to ensure safety for the selected doors. It is particularly robust, prevents the risk of injury caused by the door thanks to its rounded shape

and can be individually designed. The steel round frame "day care centre version" is characterised by a rounded shape without corners and edges. In comparison to classic frames, the round form allows the door leaf to rotate around the steel frame at such a short distance that there is practically no space for fingers to get between the door leaf and frame and become trapped. The lock plate and hinges are embedded to be flush-fitting, so that the frame construction minimises the risk of injury on the door. The robust steel frame is also able to withstand the heavy loads and high frequency of

use in children's playing and learning areas in the long-term. Alongside the functional aspects, the steel round frame also meets the design expectations of planners and architects and is available in various surface finishes, a single-leaf and double-leaf version, as well as optionally with side element, transom light and various optional extras. The Schörghuber steel round frame is also approved for various functions such as fire and smoke protection and acoustic insulation.



Product-related further training takes place in a 450 square metre space in Ampfing.

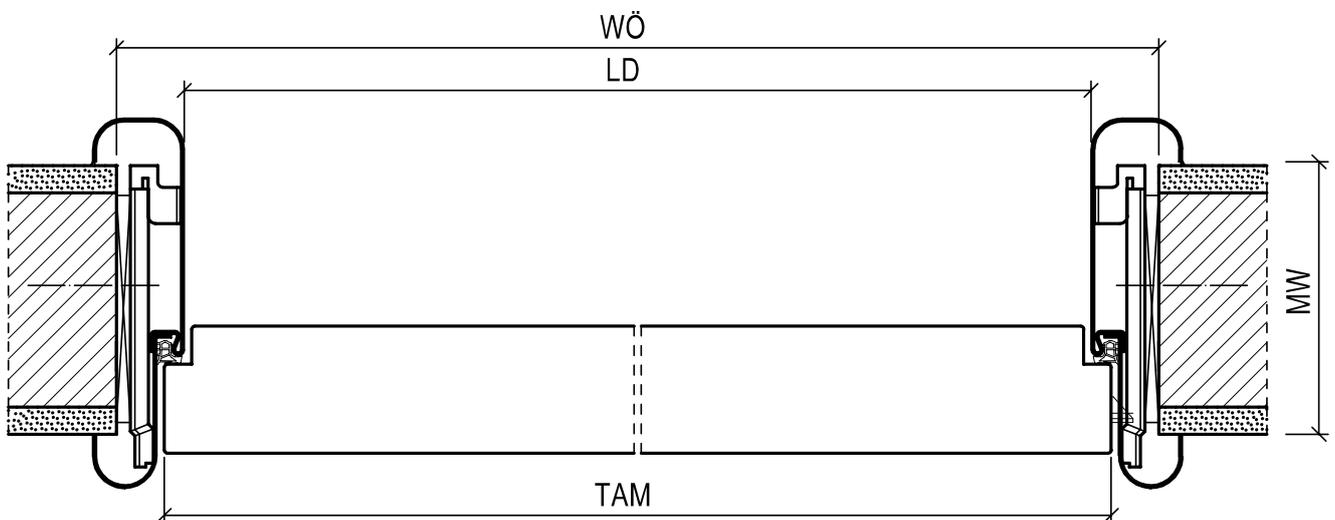
TRAINING AND EXHIBITION ROOM AT THE AMPFING SITE

The new approx. 450 square metre training and exhibition room at the Schörghuber headquarters in Ampfing was completed in May 2017. Since then, architects, dealers, processors and company employees have been trained in the new facilities and have benefitted from the improved learning atmosphere. "Creating an optimum learning environment for product-related further training was our aim," says Jürgen Ruppel, Managing Director at Schörghuber, explaining the reasons for extending and modernising the training and exhibition room. After a ten-month building phase, a training room equipped with the latest technology, a modern and light-flooded room concept and

an extended product exhibition with the latest doors and frames are the result. The old training and exhibition room had become somewhat outdated, both with regard to technology and space. Growing interest and increasing numbers of participants also made an extension necessary. Therefore two new rooms were created that can be separated from each other. The new, approximately 100 square metre training room offers space for 30 participants and is equipped with the latest technology. A high-acoustic-rating door separates the room from the product exhibition if required, thus creating the perfect conditions for training.



Overall view of the rounded frame face.



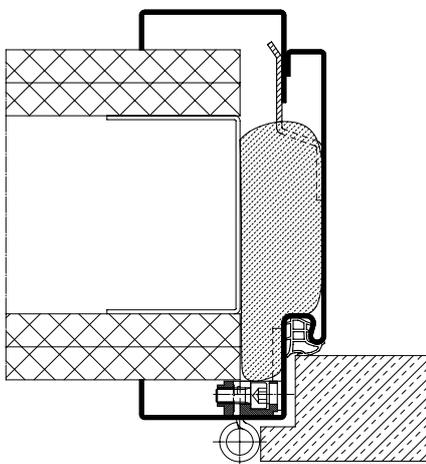
The door leaf turns so close to the frame that there is practically no risk of injury.

TECHNOLOGY: HÖRMANN STEEL PROFILE FRAME VARIOFIX

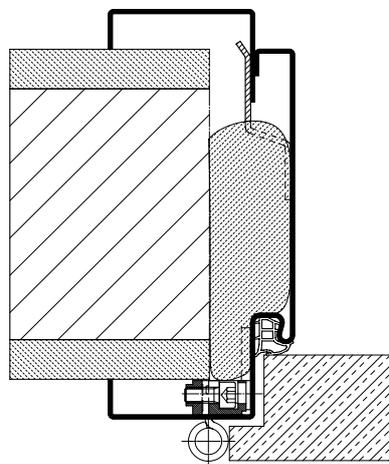
Application areas: Tolerances can occur during redevelopment or in new builds due to the application of different amounts of plaster or non-standardised wall thicknesses. VarioFix steel profile frames can be adjusted in the decorative rebate and compensate tolerances up to 20 millimetres without visible foldback. This makes them especially suitable for retrofitting. As simple to fit as a timber frame, Hörmann thus offers an alternative to timber frames with additional benefits in terms of design and durability. Steel frames are especially suitable in locations where doors and frames are subjected to particularly high loads, such as in office buildings: They are very sturdy and remain undamaged and attractive in the long term.

Aesthetic and modern design is a key element in properties that are used privately or commercially, which is why the VarioFix frame has been designed without visible foldback. As a result, once the frame has been fitted, its wall width adjustment function is no longer visible, in contrast to conventional steel frames with wall width adjustment. In comparison to this, with other steel frames where the wall width can also be adjusted, the adjustment is noticeable due to a visible foldback on the outside of the frame. Powder-coated steel frames, and therefore also the VarioFix frame, have no visible mitre cuts, in contrast to timber frames. Corner transitions are not visible, due to the continuous weld seam and processing at the factory.

Model: Steel profile frame VarioFix with wall width adjustment Version: double-shell profile frame without visible foldback, without mitre in the corners with powder-coating, optionally with panel, transom light, side element Profile system: hot-galvanized steel Frame face: 55 mm **Frame rebate depth:** 28.5 mm **Wall width:** 80 mm - 530 mm **Wall width adjustment range:** -5/+15 mm **Max. standard size:** 1000 x 2125 mm **Fitting in:** all wall types **Door leaf:** single-leaf and double-leaf, rebated, flush, up to 50 kg door leaf weight **Fitting:** 2-C fitting foam, selective or completely filled, without screw connection **Sound-absorbing seal:** PVC, three-sided **Material:** galvanized sheet metal (material thickness 1.5 or 2 mm) **Surfaces:** primed, powder-coated **Optional extras:** friction-locked fastening with adapter for higher door leaf weight up to 80 kg, acoustic insulation, RC 2 safety equipment, RAL to choose, frame face width ≥ 30 mm, profile frame profile with double rebate



VarioFix for partition walls



VarioFix for brickwork



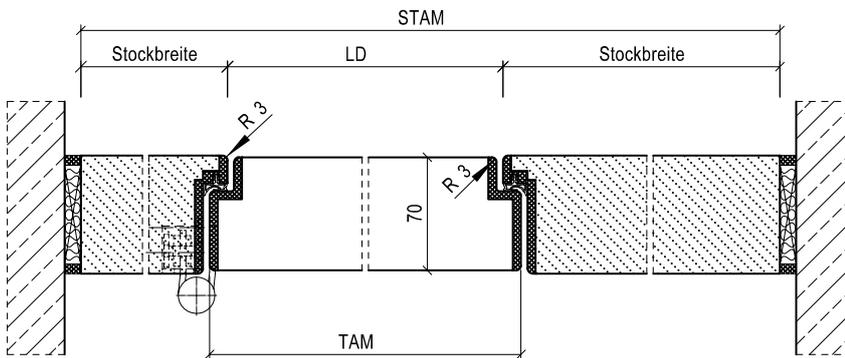
Internal door and visibility window with VarioFix frames.

Pictures: Hörmann

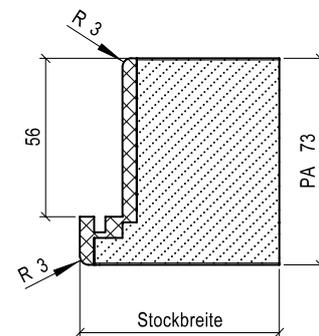
TECHNOLOGY: SCHÖRGHUBER REBATE FRAME WITH CAST PU EDGE

Application area: Damages are often caused to the frame edges due to impacts and regular exposure to dirt and moisture in high-frequency areas such as schools, nurseries or hospitals. To counteract this for the long term, rebate frames at Schörghuber can optionally be equipped with edge protection on two, three or four sides on a polyurethane basis, referred to as the PU edge. The 2-component material is cast as a liquid under high pressure so that an insoluble connection is created. PU edges are particularly impact, scratch and wear-resistant as well as resistant to temperature, chemicals and solvents. Thanks to these properties, the PU edge has been classified in the highest load category 4 ("E" = Extreme) by independent testing institutes and increases the durability of door sets.

Product: Rebate frame with cast PU edge Version: single and double-leaf, can be combined with 50 and 70 mm door leaf thickness, optionally with transom panel, transom panel as frame crosspiece with PU edge in 54 or 73 mm thickness Fitting in: brickwork, concrete, gas concrete, partition wall Functions: fire protection T30, smoke protection RS, acoustic insulation $R_{w,P} = 32$ and 37 dB, commercial (composite timber) **Frame hold dimensions (width x height):** maximum approved size of the respective door types, but overall frame dimension (ZAM) 2900 mm **Surface:** rebate frame with HPL laminate. Cast PU edge in all RAL and NCS colours Optional extra: damp protection on the bottom frame edge, electric strike, magnet and latch contact, alarm contact element, security bolts, concealed hinges and normally open contacts



Horizontal views



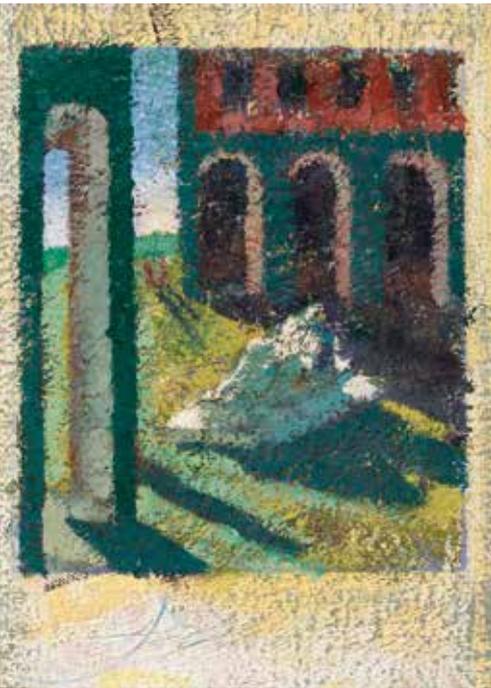
The cast PU edge protects against mechanical impacts.



Rebate frame in detail

ARCHITECTURE AND ART

JOCHEN PLOGSTIES



Left: 33_16 (Melancholia), 30 x 21 cm, oil on canvas, 2016 [Based on: Giorgio de Chirico, Melancholia, 79 x 63 cm, oil on canvas, 1912, Estorick Collection, London, Great Britain. In: Kestnegergesellschaft (publisher), Giorgio de Chirico, Hannover 1970, page 85.] / Right: 6_15 (Campo di Rialto), 122.5 x 185.5 cm, oil on canvas, 2015 [Based on: Canaletto, Campo di Rialto, oil on canvas, ca. 1760, Staatliche Museen zu Berlin, Gemäldegalerie, Berlin.]

“Appropriation Art” – a controversial yet established term for art coined by art critics where the motifs are borrowed from known works. Jochen Plogsties’ definition of his own work fits this description.

He describes his work as a “reassignment of reproductions of paintings”. In an interview with the Leipzig Volkszeitung, Plogsties puts the relation to Appropriation Art into perspective and substantiates: “I look, I observe something, a picture, a piece of artwork, something on the outside that inspires something inside me. Through painting, I record my reactions to it.” In contrast to this quote, his pictures are not exact reproductions of the originals. Rather, reproductions that have already been produced serve as a basis for his works. This

means that Plogsties’ perception concentrates on the original composition. Everything that characterised the picture on a craftsmanship and metaphorical level is omitted. Elementary components of the picture have therefore already been lost by the reproduction, meaning that room is created for Plogsties’ interpretation. The same motif then produces a very similar picture superficially, but a new picture at its very core. It is very evident in his work “untitled filmstill 15” (right picture). The original features 69 black and white photographs from artist Cindy Sherman, which, in turn, are inspired by scenes from art-house films. Plogsties turns it into a colour painting covered with Arabic detailing in the form of a pentagram, which makes reference to the compositional idea of the original.

Artist: Jochen Plogsties

Born in 1974 in Cochem, Germany

Initially studied under Friedemann Hahn at the Art Academy in Mainz and then under Arno Rink at the Academy of Fine Arts Leipzig. After graduating in 2006, he successfully completed his studies in the Neo Rauch master class. Many exhibitions followed – mainly in Germany and in the United States – as well as awards such as the Art Prize from the Leipzig Volkszeitung. Jochen Plogsties lives and works in Leipzig.

ASPN

Spinnereistr. 7

04179 Leipzig

www.aspngalerie.de

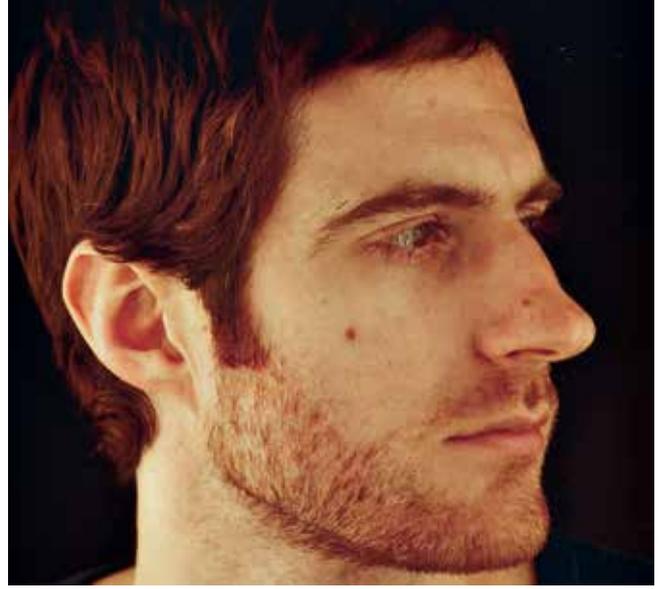
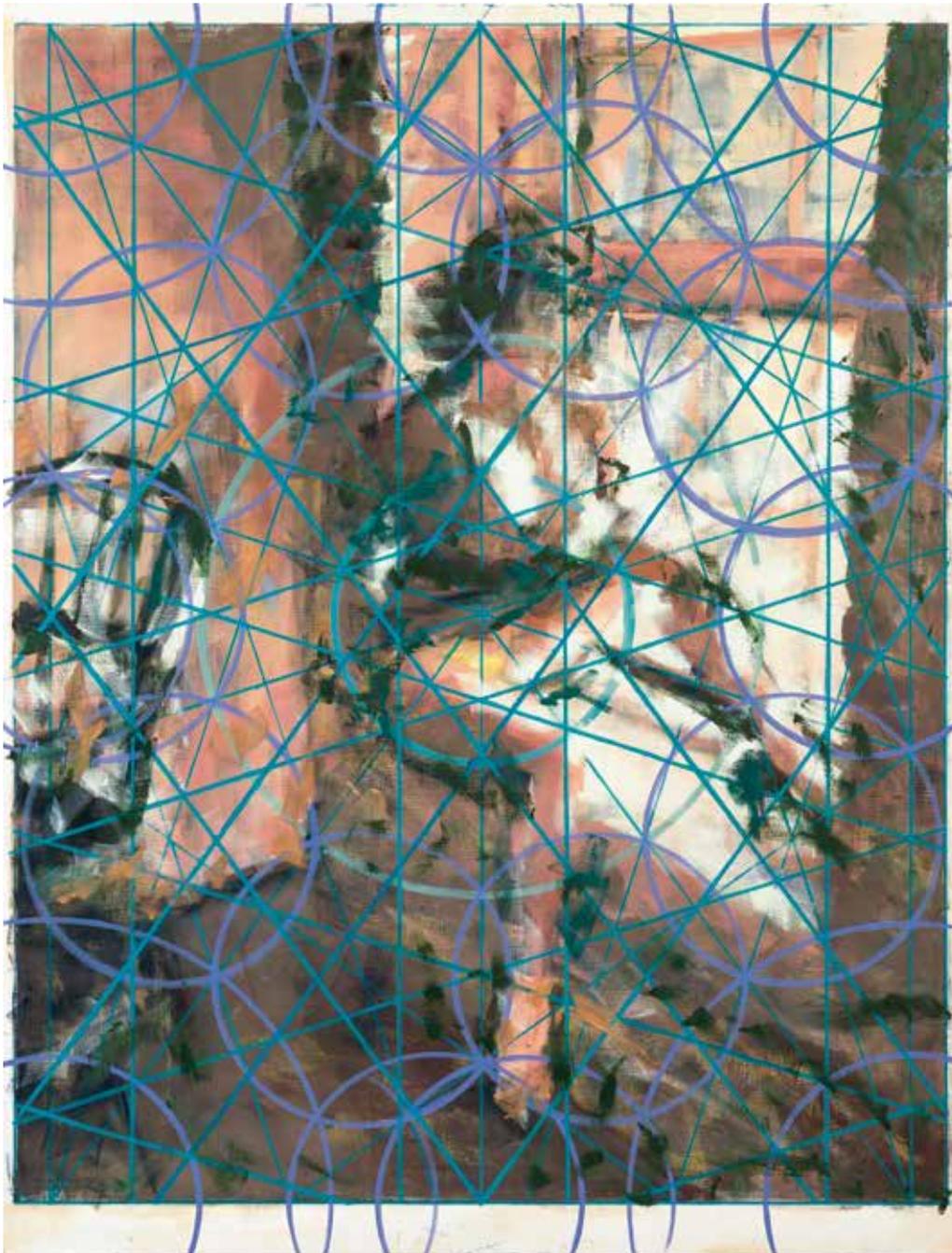


Photo: Inga Kerber



Reproductions of reproductions of reproductions: Uwe Walter

21_16 (untitled filmstill 15, 1978), 260 x 200 cm, oil on canvas, 2016 [Based on: Cindy Sherman, untitled filmstill #15, 1978. In: The Complete Untitled Filmstills Cindy Sherman, New York 2003, page 31.]

RECENTLY IN... LEGO MINILAND



Photo: juniorbeep / iStock

Lego figures always show the camera their best side. They always have a smile on their face. Our interview partner, Berry, is also in a great mood when we ask him to talk to us at Lego Miniland.

What do you actually do all day long?

Obviously I spend most of my day building. I love to lose myself in tiny details and enjoy letting my creativity run wild.

What was the first thing you ever built with Lego blocks?

I am 39 years old now, so I've built all kinds of things. But I discovered my passion for famous buildings almost ten years ago. Everything started in 2008 with the Sears Tower, now called the Willis Tower, which stands in Chicago.

What is the most striking architectural building in Lego Miniland?

The Berlin Reichstag. It unifies everything that classic architecture has to offer – including the inscriptions on the building. The dome was particularly difficult to build. The

building took 1,069,937 Lego blocks and 1858 hours of work by the way.

What influence do Lego blocks have on a child's development?

Playing means learning! When children play with Lego blocks, they learn intuitively which constructions stand and which ones collapse straight away. This promotes both visual thinking and problem solving skills. Moreover, the varied combinations options mean that fantasy and creativity know no bounds. Children can rebuild anything they want, gather their own experiences and try out construction projects and ideas as often as required until it works.

Will the new Lego House from the Bjarke Ingels Group actually be built from Lego blocks?

The Lego House looks as if it were made from 21 gigantic Lego blocks. The "Keystone Gallery", which recreates a classic Lego block, will be located on the roof. It will open at the end of September 2017.



The "Modular Building" series shows architecture from the years of rapid industrial expansion in Germany.



Photo: LEGO

Photo: LEGO

Architectural icons: Guggenheim Museum by Frank Lloyd Wright.

Lego figure Berry

Born in 1978 in Billund, Denmark

Initially designed as wooden toys, the Lego company was founded by carpenter Ole Kirk Christiansen. The company name comes from the Danish "leg godt", which translates as "play well". In 1949 he introduced the first generation of Lego blocks made from plastic, but not featuring the plug-in system we know today, for which a patent was filed in 1958. There are currently around 14,000 different components in the range. Lego now no longer restricts itself to the famous building blocks, but is also trying to find its place in media business. For example, it is now possible to activate animated figures in a computer game by buying haptic pendants.

www.lego.de

What is the house for?

Lego House is a 12000 m² experience centre where visitors of all ages can actively discover the magic of the brand and let themselves be inspired. Six different experience zones, three restaurants and a Lego Store invite guests from around the world to interact, build and play.

How did the Lego Architecture series come about?

The product line has been available since 2009 in Germany and is mainly directed at youngsters from twelve years of age and adults who are interested in design, architecture, travel and history. The series includes the world's most famous buildings, attractions and skylines – such as the Solomon Guggenheim Museum and the skylines of Berlin, Chicago and Sydney.

How do you get your "own" house in this series?

Simply build it yourself!



Photo: Bjarke Ingels Group

Is it made from Lego blocks? The Lego house from BIG.

Topic of the next issue of **PORTAL: Living**

In comparison to today, people one hundred years ago lived in very cramped conditions. Entire big families used to occupy a space of around 46 square metres. Nowadays this amount of space is available per head according to the German Federal Office of Statistics. From the end of the Second World War, the average available living space only headed in one direction: It became bigger and bigger. However, the figure has been stagnating since 2011. Soaring rents and building prices as well as limited space in the cities are responsible. How can we get a grip on the "housing shortage"? The experts have been arguing about the solutions for many years. But hand on heart: Do we always need more space? Will the trend not move towards more compact living? And which demands do we place on our own four walls nowadays? We will provide the answers in the next edition of Portal with the help of sample project.



Photo: esanud / iStock

The dream of your own home starts small.



FRAMELESS BEAUTY

**THE INVISIBLE ALUMINIUM FRAME
ZEROLINE**

fulfils the highest fire, smoke and acoustic insulation functions and opens up entirely new design possibilities to turn visionary room concepts into reality.

Find out more at
www.schoerghuber.de