## HÖRMANN SCHÖRGHUBER

# PORTAL 53

HEALTH

1

INFORMATION FOR ARCHITECTS FROM HÖRMANN AND SCHÖRGHUBER ARGE A|SH SANDER.HOFRICHTER & H2M, BERGER+PARKKINEN, BMV WALLIS AND ARTUNE, WAECHTER + WAECHTER





## CLEAN ROOM DOORS



## CERTIFIED HYGIENE – DOOR SOLUTIONS

### TESTED PROTECTION FOR CLEAN ROOMS

The clean room doors programme from Schörghuber meets the highest hygiene requirements and was specially developed for clean rooms. The clean room doors are the perfect solution for laboratories, hospitals, clinics, biotechnology and pharmaceutical buildings, for example. They are resistant to chemical and biological substances and disinfection solutions as well as  $H_2O_2$ .

Tested and certified by the Fraunhofer Institute IPA.

Discover a world of doors at www.schoerghuber.de

### **EDITORIAL**



### **Dear Readers**,

We all know that crisp packets don't rustle because the manufacturers want to annoy cinema audiences. They do it because we involuntarily get an idea of the crunchiness of the contents from the rustling of the packaging. The colour of artificial office light makes us think it's still morning when we work in the late afternoon. And every fashion store owner knows to use flattering light in the changing rooms so that customers do not flee in horror when confronted with their own reflection, but happily pull out their credit cards. It is only in the case of healthcare buildings that this knowledge about the influence of acoustics, light and surfaces on the psyche and therefore on healing the sick has apparently not yet become widely accepted. At best, it is "insular knowledge" that various specialist planners have, and does not always lead to architecture that has a positive influence on the psyche. Quite the opposite: in the past, large hospitals in particular were mostly understood as an organisational business. How the patients actually felt was hardly considered. Even doctors' surgeries often tend to reflect the self-confidence of the white coats, with little regard for the fears or hopes of the clientele waiting in the waiting rooms

for painful treatment or a frightening diagnosis. However, the architecture is slowly changing. In this edition of PORTAL, once again, we will present four projects. And each one is outstanding in its very own way. In a workshop for people with disabilities, prototypical details of industrial architecture are used to make it clear that real jobs have actually been created here and not accommodation in an institution. Another example shows that the boundaries between spas and family fun are becoming blurred. In our clinic example, the bottom edges of the windows in the hospital rooms have been shifted down towards the floor, giving bedridden patients new perspectives that go far beyond an outside view. And our last example proves that a medical centre with its surgeries does not necessarily have to represent the medical, pharmaceutical and therapeutic value chain. All the projects in this issue of PORTAL fit in with the theories of architectural psychologist Vollmer, who in her article calls for attention to be paid to the influence of architecture on the psyche. Just like the manufacturers of crisps have long done in the development of their snacks.

We hope you enjoy this issue.

histop force

Christoph Hörmann

Ainam Clart.

Martin J. Hörmann

Personally liable general partners

Thomas J. Hörmann

#### ABOUT THE TOPIC: HEALTH "VERIFIABLE"



**INVASIVE**:

**KULMBACH HOSPITAL** 

REHABILITATIVE: PARACELSUS-BAD IN SALZBURG



REANIMATIVE: MEDICAL CENTRE IN NATERS



INTEGRATIVE: CENTRE FOR WORK, EMPLOYMENT AND HEALTH IN NEUWIED



COMPANY HÖRMANN & SCHÖRGHUBER



### **CONTENTS**

"Verifiable"

04 CONTENTS/IMPRINT

**06 ABOUT THE TOPIC: HEALTH** 

by Prof. Dr. Tanja C. Vollmer

12 INVASIVE: KULMBACH HOSPITAL

#### TECHNOLOGY HÖRMANN & SCHÖRGHUBER



#### ARCHITECTURE AND ART MATTHIAS REINMUTH



RECENTLY IN ... BIELEFELD DR. MED. KLAUS REINHARDT

## by Berger + Parkkinen

28 INTEGRATIVE: CENTRE FOR WORK, EMPLOYMENT AND HEALTH IN NEUWIED by Waechter + Waechter

20 REHABILITATIVE: PARACELSUS-BAD IN SALZBURG

by Arge a|sh sander.hofrichter Architekten & H2M Architekten

- 34 **REANIMATIVE: MEDICAL CENTRE IN NATERS** by BmV Wallis and artune
- 42 COMPANY
- 46 TECHNOLOGY
- 48 ARCHITECTURE AND ART Matthias Reinmuth
- 50 RECENTLY IN ... BIELEFELD Dr. med. Klaus Reinhardt
- 51 PREVIEW Openings



#### IMPRINT

Published by Hörmann KG Verkaufsgesellschaft Upheider Weg 94 – 98 3803 Steinhagen, Germany Telephone: +49 5204 915-167 Fax: +49 5204 915-341 E-mail: pr@hoermann.com Internet: www.hoermann.com

Editors Lisa Modest-Danke, Verena Lambers

Architect's Mind GmbH & Co. KG www.architectsmind.de Dr. Dietmar Danner, Daniel Najock Christina Dragoi Schörghuber Spezialtüren KG Neuhaus 3 84539 Ampfing, Germany Telephone: +49 8636 503-0 Fax: +49 8636 503-811 E-mail: pr@schoerghuber.de Internet: www.schoerghuber.de

Printing

Hans Gieselmann Druck und Medienhaus GmbH & Co. KG Ackerstraße 54 33649 Bielefeld, Germany

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 – HF no.: 88088

Title photo: Ralf Dieter Bischoff



## ABOUT THE TOPIC: HEALTH VERIFICABLE HOW ARCHITECTURE INFLUENCES HEALTH BY PROF. DR. TANJA C. VOLLMER

The structural change in the German health care system means that new, sustainable architectural concepts and architectures are required, derived from a deeper understanding of human nature on the one hand and a new grasp of architecture on the other. Those are the opening words of architect Gemma Koppen and the architectural psychologist Prof. Dr. Tanja C. Vollmer in their current book "Architektur als zweiter Körper" (Architecture as a Second Body), published by Gebr. Mann.

In this first design theory for evidence-based healthcare construction, we demonstrate how the diverse interactions between our well-being and the space around us can be incorporated into the design and how scientific findings from architecture, psychology and medicine can be put to effective use.

#### Health is fragile

We only really succeed in understanding health as a concept and in its value when it is threatened, affected or destroyed by disease. Until then, most people take health for granted, as something robust. The COVID-19 pandemic has impressively demonstrated to us that the opposite is the case. Health is precious and fragile because we, as human beings, are not robust but very vulnerable and open to attack. Since December 2019, COVID-19 has been spreading around the world, millions of people have been or are infected, and there have been hundreds of thousands of deaths. In reaction to the outbreak, several countries introduced lockdown measures and other strategies to limit freedom of movement in order to prevent the spread of the virus. In addition to the medical, social and economic effects of the epidemic, the first studies now also show the serious psychological consequences.

Stress, anxiety, depression, sleep and addiction problems have increased worldwide. For example, a scientific analysis of social media content after the outbreak showed a significant increase in anxiety and depression symptoms causing illness, as well as a simultaneous decrease in overall life satisfaction and positive emotions.

#### **Abandoned city centres**

The shop windows of the empty department stores reflected the invisible threat to health and life. Closed museums and theatres became sad witnesses of us being left to our own devices. The architectures of community and encounter, of inspiration and distraction – all environmental factors that usually influence our mental health in a positive way – were suddenly closed. Offices, administrative buildings, universities, schools and institutions – buildings that in everyday life can certainly be associated with negative feelings such as stress, tension, overwork, conflicts or pressure to perform – were all suddenly missing from our lives.

#### Lack of depth

"Just sitting at home is not healthy!" my fourteen-yearold nephew shouted angrily from his makeshift desk in the kitchen. And he was certainly right. For a long time, psychology has classified everyday structures, which are also connected with spatial distances and physical movement from A to B, as so-called hard factors in stable mental health and as extremely important for healthy child development. But where should my nephew go? His room had already been confiscated by his mother so she could hold her daily ZOOM conferences without being disturbed. The balcony is not heated, and school without a scuffle between him and his neighbour every now and then is not normal for young people his age. We can all suddenly physically feel what science has long known about the way mentally ill people perceive the world: "When space is missing, depth is missing." Feelings become flat, the mood bad.



Innovative patient room typology: the Parent-Child Patient Unit (PCPU). Parents have a room directly next door to ...

#### **Open endings**

Humans can compensate for a lot when they know that an event is a temporary thing. However, open endings lead to depression. No one knows this better than the ones who suffer from it. Studies show that depressed people lose parts of their perception of depth and therefore find it difficult to orientate or move around in rooms. It's an aspect that the Dutch architectural firm VMX Architects took into account when designing a psychiatric clinic in Utrecht – the Willem Arntsz Huis. They emphasised the depth of space on the facade and inside the building with the aid of extremely hard shadows, which were achieved by purposefully inverting and protruding the walls.

#### Architecture as a second body

Changes in perception occur not only in the case of mental illnesses, but also in severe physical illnesses. In our book, we show ways to find targeted supportive architectures and design decisions by looking at changes in perception. Health is more than just being free from illness. The majority of depressions in Germany are assigned to the so-called chronic diseases. Diseases, in other words, for which - unlike the pandemic - there is no hope of an end. Those affected suffer life-long and some experience a considerable loss in their quality of life. Current figures show that more than every other person in Germany suffers from a chronic disease. Cardiovascular diseases and cancer each account for about 20 per cent of these. 11.4 per cent are musculoskeletal disorders and about 8.5 per cent each are mental and neurological disorders. For all of these types of disease, changes in perception have now been able to be proven scientifically, which relate to the built environment, the architecture, in many regards. People with dementia, for example, avoid areas of dark colour because, in their perception, they look like ditches or holes. Cancer sufferers, in contrast, react with panic attacks and physiological stress to certain room proportions, dimensions and room lighting that healthy people find to be enjoyable. In our book, seven selected examples from

the subjective experiences of chronically ill people help us to better understand the links between changes in spatial perception and illness.

#### **Health redefined**

In addition to temporary health threats and impairments, and the acute illnesses such as a pandemic, the flu, the consequences of a car accident or pneumonia and the "endless" chronic illnesses mentioned above, the case of a disability cannot be referred to as full health either. 9.5 percent of Germans and 25.3 percent of those over 64 live with a severe disability, which can be physical and/or mental in nature. The attentive reader will now realise that more than three quarters of the German population are not healthy in the classical sense, meaning that the concept of health as the "absence of illness" is no good for describing the general basic human condition that needs to be protected. A few years ago, the World Health Organisation (WHO) also came to this conclusion and recently defined health in its statutes as follows: "(...) a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Well-being has two dimensions: a subjective and an objective one. Fundamental elements of an objective sense of well-being are the living conditions of people and the opportunity to make use of their potential. In September 2012, representatives of the 53 member states from the WHO European Region formulated the European framework "Health 2020", which is based on the new definition and advocates an all-state approach to improving public health and preventing disease.

#### **Psychosocial determinants**

One of the core objectives is psychosocial determinants, which are the conditions under which people are born, grow up, live, work and grow old. Architecture can have a huge influence on these determinants – from housing and urban development to the design of schools and workplaces to retirement and nursing homes – if it makes a conscious effort to incorporate interdependencies into



Rendering: KOPVOL architecture & psychology

... the children's room, which includes a play corner.



Interior of Maggie's Cancer Caring Centre in Aberdeen by Snøhetta.



The REHAB in Basel by Herzog & de Meuron – featuring transom lights for neurophysiological stimulation.

Gebr. Mann publishers (2022) ISBN 978-3786128786, €69

its concepts and makes design decisions on a scientifically sound basis. In our book, we introduce these new thoughts and actions and clarify important terms regarding "evidence-based design of healthcare facilities".

#### Health is (also) a result of architecture

According to the current WHO definition, health is the result of the conditions we create as a society. One of the most important conditions is created by the built environment and its architecture. This insight is one of the most successful knowledge developments in modern architectural psychology of the past ten years. It states that human health is based on the relationship to a (built) environment that people can use according to their needs and continuously help to shape and reshape. Scientific literature looking at the effect of architecture on health distinguishes between two directions of effectiveness: negative, demonstrably harmful influences on health and positive, health-promoting influences. To explain these effects, psychology starts with basic needs, of which the level of fulfilment is subject to individual characteristics and which can be undersaturated or oversaturated by external factors, including architecture. In both directions, emotional states can be described that can become a disease. If, for example, there is too much privacy in a residential building or housing estate, anonymisation happens, which could possibly lead to depression. If there is not enough, alienation can arise as a possible basis for a paranoid disorder.

#### Architecture-psychological findings

The state of Baden-Württemberg is the first federal state to currently incorporate architectural psychology findings into the development of new housing standards for affordable housing. In the research and development project "The human being as a standard", for example, classic design elements such as the walkway are tested (again) for their ability to create healthy social living environments. As early as 2005, the temporary International Criminal Court started being built in the Netherlands, for whose design the architect Gemma Koppen focuses on stabilising the mental health of the victims. The colour, arrangement and line-ofsight concepts are all derived from the correlation between the need for control and the experience of fear.

#### Great Britain as an example

In the example already mentioned of cancer sufferers, fear also plays a major role. The threat to life that every person with the disease experiences, despite good chances of recovery in some cases, leads to high mental stress, which is also related to the perception of space: rooms where many people come together suddenly seem threatening and can trigger anxiety and panic attacks. If these rooms are made bigger or provided with "private" recesses, the wellbeing of the affected person does not change. Architecture that works with foresight and backdrops, on the other hand, offers an escape from the view and prevents the feeling of confinement and enclosure, keeping panic attacks at bay. In Great Britain, more than twenty facilities have already been designed on the basis of an architect's brief, which picks up on precisely these architectural-psychological contexts. Renowned architects such as Rem Koolhaas, Zaha Hadid, Richard Rogers and Snøhetta took the briefing to design small psychotherapy and meeting places for cancer sufferers with a great impact on their mental health: Maggie's Centres.

#### Needs-based architecture

In 2021, the journal of the Federal Ministry of Health publishes a dynamic model that divides the effect of architecture on human health into three sectors: preventive architecture, curative architecture and rehabilitative architecture (PAKARA, Federal Health Gazette, 2021). Whilst the interaction between architecture and people leads to the prevention of health damage in the preventive sector, architecture contributes to restoring health in the curative sector. The term "healing architecture" only applies to this area. The third, the



Prof. Dr. Tanja C. Vollmer

#### Prof. Dr. Tanja C. Vollmer

researches and teaches architectural psychology and health construction at the Technical University of Munich. She studied biology and psychology in Göttingen and health psychology at Harvard Medical School in Boston. As an architectural psychologist, she chairs numerous expert committees such as the Science Consortium Architecture and Global Health. In 2008, together with Dutch architect Gemma Koppen, she founded the architectural office KOPVOL architecture & psychology in Rotterdam and in 2019 in Berlin. In 2015, the PCPU patient room typology developed by KOPVOL was awarded the Dutch health insurers' innovation prize worth five million euros. www.kopvol.com

rehabilitative sector, includes all the effects of a built environment that contribute towards stabilising health. The REHAB in Basel is a successful example for this sector. The architectural firm Herzog & de Meuron uses specially shaped transom lights fitted in the patient rooms above the patients as neurophysiological stimulation for coma patients. For some years now, there have been calls for German hospital construction to move away from requirements-based architecture in favour of needs-based architecture. Building owners, users and decision-makers are increasingly making reference to evidence based design (EBD). This means that architects base their design decisions on the basic needs derived from architectural psychology and their scientific evidence of saturation. We assume that the types of hospital we know today will die out. However, there is still a widespread lack of innovative models that can fill this gap and draw on robust scientific evidence on the relationship between the built environment and human health. The Princes Máxima Centre for Paediatric Oncology in Utrecht (Netherlands) by LIAG Architects is one such model. Parallel to the room programme, the building owner had science-based architectural concepts developed by our office to reduce the stress that endangers the health of hospitalised families. The result was the development of an innovative patient room typology - the Parent-Child Patient Unit (PCPU). In the PCPUs, the distance between parents and child can be flexibly arranged depending on the child's state of health, thereby creating the "free space" that has been proven to be important for stress reduction for both parties without losing the important feeling of "being close to each other".

#### Insufficient training

The development of these kinds of evidence-based architecture concepts is currently inadequately taught at German universities or used in architectural practice. This situation is fatal, since it is precisely the new generation of students and graduates who are highly motivated to take on a supportive and sustainable design of our environment that is oriented towards people and to value its design as meaningful to the career goal they chose with passion. Modern architectural psychology, developed in our book on "Architecture as a Second Body", provides sufficient guidance to seed their own creative work from the attention given.

## KULMBACH HOSPITAL BY ARGE AJSH SANDER.HOFRICHTER ARCHITEKTEN & H2M ARCHITEKTEN



A hospital conversion during ongoing operations is like "open-heart surgery" and is the opposite of a minimally invasive procedure. In Kulmbach, an impressive large-scale architectural sculpture was created and, at the same time, an example of a new hospital architecture, oriented towards the patients.

Developments in medicine, the differentiation of the most varied specialist areas and the increasingly complicated administrative handling of the business task of "illness" also caused large hospitals to move further and further away from the ideal of a building that takes into account both the needs of the patients and the medical staff with every expansion and every conversion during running operations. H2M Architekten, in collaboration with a|sh sander.hofrichter architekten, therefore had an almost prototypical task to tackle. They found a structurally quite efficient hospital from the 1960s. Due to extensions and conversions, however, the basic structure became increasingly complex, routes became longer and increasingly complicated.

#### It's all about the design

Within ten years and still until 2025, conversions and extensions shall restructure and modernise the hospital – and all this will, of course, take place whilst operations continue. It is already apparent that the work of the two architectural offices involved is not only focused on the structural reorganisation and optimisation of clinical processes. The first construction phase is completed and it proves that the classic tasks of architecture can also be fulfilled in hospital construction. It's not just about the organisation of processes. It's also about the design. A new nine-storey building now towers high above the "secret capital of beer". Four functional areas and, above them, five nursing floors became the new "face" of Kulmbach Hospital. The high-rise section from the 1960s and its various extensions display the spirit of hospital planning of the time, which understood medicine and care more like a process to be industrialised and consistently gave it the appropriate expression. However, this machine aesthetic negated the more human needs of the sick as well as the demands of the medical and nursing staff for a working environment that is not only efficient but also spatially pleasant.

#### **Confident gesture**

The first construction phase and the following ones are almost a turnaround in planning. In addition to organisationally efficient space arrangements, this also includes design. And with the new building, a clear signal was set. Outwardly, through the confident gesture of a mighty natural stone cube directly opposite Plassenburg Castle - the city's impressive landmark and one of the largest Renaissance buildings in Germany. Its sandstone walls are taken up again as a common thread in the new parts of the hospital. But where the castle has a perforated facade made of slim arrow slits, the new part of the hospital has oversized and carefully detailed openings in the natural stone facade suspended in front. What looks like a largescale sculpture on the outside becomes bright patient rooms with low railings on the inside. The effect for patients is huge. Because now, lying in their beds, they are no longer looking at a window sill, which at best is decorated by bouquets of flowers from visitors. Instead, you have an unobstructed view of Plassenburg Castle or the flood plain where the White and Red Main rivers meet. The interior is dominated by a timber look, which also counteracts the false impression that patients are only part of the hospital machinery. The new building in Kulmbach is therefore an example of new approaches in hospital construction.



The patio of the inner courtyard serves as another recreation space for the patients.



The ward control centre is differentiated in colour. Timber reveals give rhythm to the corridor.



The stringent perforated facade plays with light and shade; the surface and material therefore appear very differentiated.



The timber look gives the rooms warmth. Low window sills guarantee patients a full view.



The bathrooms are spacious. Medical aids can hardly be noticed.

## Schörghuber expertise: Special doors for all clinic areas

Doors in hospitals have to withstand special requirements. First of all, of course, they should protect the patients' rooms as much as possible from the sound of the hospital's operations and themselves be as quiet as possible to walk through. The locks are therefore fitted with silent latches. But it doesn't stop there: there is also the mechanical stress that can be caused by patient transport, and other operations. To prevent the hospital bed from getting stuck on the door in such a case, the doors of the patients' rooms are equipped with a hospital rebate frame. It is designed in such a way that it does not protrude when open, but is flush with the door leaf and therefore does not represent a potential obstacle. Furthermore, the doors have a cast PU edge. It is extremely robust against impacts and absolutely resistant to the cleaning agents used in hospitals. The door leaves feature two different surface finishes: they are made of a timber-look laminate on the room side and white HPL decor towards the corridor.



The doors into the patient rooms integrate unobtrusively into the wall.



Double-leaf fire-rated doors – designed as recessed doors.



Central areas are in a contrasting colour, like here in the ward's care support post. The glazing cut-out guarantees collision-free opening of the door.

Location: Albert-Schweitzer-Straße 10, Kulmbach, Germany Building owner: Kulmbach Hospital Association, Germany Architect: Arge a|sh sander.hofrichter architekten, Ludwigshafen, Germany & H2M Architekten, Kulmbach, Germany Utilised space: 6873 m<sup>2</sup> Gross floor area: 12,741 m<sup>2</sup> Gross volume: 45,060 m<sup>3</sup> Construction costs: €46.7 million

Completion: 2020 (1st construction phase)

Photos: Ralf Dieter Bischoff, Nürnberg, Germany (outside photos) / Dieter

Leistner, Würzburg, Germany (inside photos and courtyard photo)

Processor: Karl Westermann, Denkendorf, Germany

Schörghuber products: around 530 special doors, patient room doors with acoustic insulation Rw,P = 42 dB, single-leaf and double-leaf acoustic-rated doors Rw,P = 37 or 42 dB, single-leaf T30 fire-rated / smoke-tight doors with acoustic insulation Rw,P = 32 or 42 dB, double-leaf T30 and T90 fire-rated recess doors, single-leaf T90 doors, radiation-proof sliding door, acoustic-rated doors Rw,P = 32 dB with damp room suitability, acoustic-rated doors Rw,P = 37 dB with glazing cut-out, composite timber doors, rebate frames

**Hörmann products:** steel hospital rebate frames, sports hall frames, 2-part steel profile frame, bracket clamp fastening for retrofitting, steel corner frames



Floor plan for the first floor



Floor plan of the ground floor



Facade view



Layout of construction measures



The Carlot and





Bathing with a view: the outdoor area on the roof of the spa lets you look far over the rooftops of Salzburg.

#### A dignified spa does not have to be a fun-free zone, and large spa facilities can also be rehabilitated in the middle of historic city centres. Both are proven by the Paracelsus-Bad in Salzburg, which was completely rebuilt at the former location.

People from Salzburg are mindful of their traditions. And because things take time here, it took about three decades until the old spa from the 1950s was actually replaced by a new Paracelsus-Bad. You come across Theophrastus Bombast von Hohenheim, known as Paracelsus and buried in Salzburg, in the city almost as often as Mozart – and the local spa also owes its name to the doctor and forefather of naturopathy. Situated between the Salzach river, a development from the times of rapid industrial expansion and the edge of the Mirabell Palace Park, the new building by Berger+Parkkinen certainly bears the weight of its historical urban responsibility. It meets with the historic street space on the north-west side, blends into the neighbourhood with its volume – and yet remains strictly contemporary in form with the all-round ceramic sections.

#### Straight as a die and impressive

Anyone who enters the monolith, which is basically designed without scale, stands in front of a staircase that is straight as a die and rises impressively over four storeys. Setting out on the valley floor of the main entrance is almost like climbing a moderately difficult Alpine peak. This is because the actual pools of the baths are not found on the entrance level, like you would expect. You will find them on the top floor - almost like glacial lakes, where you might sit by the shores and admire the surrounding city and mountain landscape. On the way up, bathers pass the various medical surgeries and therapy areas – to finally find a real family pool up on the high plateau. After all, it is also the numerous parents with their children who help the Paracelsus-Bad make ends meet during the pandemic. Finally, a sky with a dramatically arched, steel cloud stretches above the various pools of water. The suspended ceramic structures conceal the building services behind them and the highly effective sound absorbers. Because underneath it is surprisingly quiet, despite the number of children splashing around. Spa guests seeking peace and quiet are not bothered by the noise of a leisure pool, and visitors won't find the cheerful and colourful palette that is usually found in such facilities. All surfaces have been kept in colours that alternate between light and dark grey in an almost late classicist manner. The Paracelsus-Bad is definitely fun – but it doesn't shout at the guest: "I'm a fun pool, so please have fun!"

#### Successful balancing act

Berger+Parkkinen succeeded here in reconciling two rather incompatible building tasks. The difficult balancing act between a public leisure pool and the tranquil spa used by a more sedate audience is achieved with just as much confidence as the urban balance between historically tightknit neighbouring buildings and a modernity that not only does not show off, but respects the city's World Heritage status without hiding away. The fact that the people of Salzburg, after much deliberation, decided against relocating the new Paracelsus-Bad to the outskirts of the city and instead decided to build at the old location was also due to traffic policy reasons. Those who want to bathe here can get right to the door of the baths on foot from the immediate vicinity, by bike or by public transport. Hardly anyone needs a car. After all, the baths were given the "Gold" award in the climate-active building standard of the Austrian Federal Ministry for Sustainability and Tourism.



Surprisingly quiet: the ceiling of suspended ceramic boxes swallows up the noise of playing children.



The indoor swimming pool needs to be climbed up to, just like Salzburg's local mountain, the Gaisberg. After all, quite unusually, it is found on the top floor.



The Kurbad Salzburg is not a fun pool, but is dedicated to the health aspect of bathing.



Seating and a wood-burning stove allow visitors to relax between sauna sessions.



Subtle design elements characterise the changing area.

## Hörmann expertise: Steel construction project doors with anti-panic devices

Safety in public buildings is the top priority. In an emergency, it should be intuitively clear to people in the building how the escape routes work without first having to study a complicated escape and rescue plan. This particularly applies when lots of people are in the same place and panic breaks out. In such situations, doors are first perceived quite unconsciously as an obstacle. To ensure that they can be opened quickly and safely without major restrictions, Hörmann offers anti-panic devices for doors in public buildings as a push bar or touch bar. In Paracelsus-Bad in Salzburg, the push bar EPN 900 was chosen. If you operate it, even locked doors open immediately and without any major effort. This ensures escape, for example, even if a panicking crowd of people presses against the door and regulated "deliberate" opening is no longer possible. Push bars are used in this project together with flush-fitting (STS) and rebated steel construction project doors (STU) from Hörmann.



Two push bars are used for double-leaf doors. If a side element is not relevant for the required passage dimension, one handle is sufficient.



Not an escape route, but fire protection: Hörmann fire sliding door running within the wall.

Featuring multiple escape door labels.

Location: Auerspergstraße 2, Salzburg, AT
Building owner: Muncipality of Salzburg, KKTB Kongress,
Kurhaus & Tourismusbetriebe Salzburg, AT
User: Tourismusbetriebe Salzburg, AT
Design: Berger + Parkkinen Architekten, Vienna, AT
Gross floor area: 10,973 m<sup>2</sup>
Utilised space: 11,817 m<sup>2</sup>
Gross volume: 62,500 m<sup>3</sup>
Completion: 2019
Photos: Christian Richters, Berlin, Germany/Gerd Kressl, Gmunden, Austria

**Hörmann products:** steel construction project doors STS/STU with push bar EPN 900, fire sliding doors

Pool area floor plan



Top floor plan



Cross-section

## **EXAMPLOYMENT AND HEALTH IN NEUWIED** BY WAECHTER + WAECHTER





The double ridge structure and the shed roofs characterise the building.

#### In the newly built "workshops for people with disabilities", happiness in life is made – in an extremely productive manner. Because the industrial unit with attached medical centre is a role model for an integrative working environment.

People with disabilities basically need the same working environment as any other worker! Therefore, the workshop in Neuwied-Engers is an industrial unit where production takes place. But how much is produced is not the top priority. Because what the workshop actually produces is happiness through work. The Heinrich-Haus, a service provider in northern Rhineland-Palatinate with numerous facilities for people with physical, learning and sensory disabilities, acts as the building owner and operator. Even the exterior design of the workshops is a great metaphor for the world of work. The shed roofs originate from industrial construction, and the double ridge structure is borrowed from the organisational chart of industry buildings. The production processes in the workshops also have nothing to do with the building structure, which in industrial construction can usually be served from two sides: at the front the delivery area with the administration sitting above it and at the back the dispatch of the finished products. This describes any ordinary industrial building just as accurately as this unusual workshop for people with disabilities (WfMB).

#### Interaction and integration

As the result of a competition and a tight budget, a workshop in timber construction was designed, which, due to its sheer dimensions alone, makes its mark on the townscape. The facility wants to integrate itself into the Neuwied-Engers community in the same integrative way as the staff is embedded in a structured working environment. The workshop fits in with the neighbouring two-storey residential buildings in terms of scale and appearance. And medical care in the supposed "administrative wing" is also opening up to the community. This is because the surgeries accommodated there not only serve to care for the workshop staff, they also provide medical and therapeutic care for the city's residents. The workshops therefore do not remain isolated alien elements in the community. The public surgeries mean that there are encounters and integration.

#### Warmth and security

On the outside, the workshop features an unpretentious timber architecture with the ability to age. Where a drip edge still needs a little optimisation, the ageing process is a little quicker; and where scaffolding was up for a long time, the timber facade bears witness to this brief episode in the history of the building. The fact that timber, as a building material, is able to exude warmth and a sense of security is very much to the liking of an institution like the WfMB. Inside, the building is split into individual workshops of different sizes and with different equipment - depending on what work is being done here and what support the staff need individually. The offer ranges from administrative and assembly workplaces, which could be found in this or a similar way in any other commercial enterprise, to workshops that are additionally equipped with rest areas, relaxation zones and lifting facilities for those with severely impaired mobility. The extra-wide corridors not only serve as traffic areas. Zones with seating are used as communication areas, just like in any modern office building. However, they also serve as alternative areas if two electric wheelchairs meet and have to be manoeuvred past each other. The inner courtyards between the blocks provide light for the workshops, serve as open spaces and are primarily intended to facilitate access for the minibuses that take the employees to their workplaces in the morning. The not inconsiderable volume of traffic is better distributed and does not collect at the two main entrances. The neighbours are thankful for this solution.





Small but nice: the canteen provides all those who work here with hot meals and snacks.

A treatment room in the medical wing.



Emptier than planned: the Coronavirus measures also leave their mark on the workshops.



Besides occupational therapy, physiotherapy is also part of the offer.

The information desk is located centrally.

## Schörghuber expertise: Acoustic-rated doors and oversize doors

The versatile use of the workshops is also reflected in the type of design of the doors. There are doors with and without transom panel, glazing cutouts in various forms, and fixed and flexible side elements. Most doors are significantly higher than the standard, 2500 millimetres to 3000 millimetres. They are also wider, meaning that they can be used conveniently by wheelchair users. Some of the doors are "Access" acoustic-rated doors. These are 70-millimetre-thick, single-leaf acoustic-rated doors with an acoustic rating of Rw,P = 42 dB. These doors are characterised by the fact that, in contrast to normal acoustic-rated doors, they only have one sealing level – i.e. one frame seal and two bottom seals. The advantage is that they close much easier than doors with two sealing levels, making them more convenient to operate. All doors were designed with a rebate frame or a timber block frame. The frame of many doors has moisture protection on the bottom frame edge and the door leaf edge has a PU edge band. This increases the service life of the elements significantly.



Some of the doors are room-high or have a transom panel.



Large glazings ensure more transparency.



Double-leaf doors divide the corridor into sections.

Doors and walls are kept in a uniform colour.

**Location:** Neuwieder Straße 27a / Am hohen Rhein 4, Neuwied-Engers, Germany

Building owner: Heinrich-Haus gGmbH, Neuwied, Germany

Architect: Waechter + Waechter Architekten BDA PartmbB, Darmstadt, Germany

**Construction management:** Waechter + Waechter Architekten BDA PartmbB, Darmstadt, Germany

with ap88 Architekten PartmbB, Heidelberg, Germany

Structural engineer: merz kley partner GmbH, Dornbirn, Austria

Gross floor area: 5270 m<sup>2</sup>

Gross volume: 20,417 m<sup>3</sup>

Costs: €11.2 million

#### Completion: 2020

Photos: Thilo Ross, Heidelberg, Germany / Nell Jones, Roetgen, Germany Processor: Kunz-Hand-Werk, Dornburg, Germany

Schörghuber products: single-leaf and double-leaf T30 fire-rated doors, single-leaf and double-leaf acoustic-rated doors with Rw, P = 32, 37 or 42 dB, single-leaf "Access" acoustic-rated doors with Rw, P = 42 dB with just one sealing level, single-leaf and double-leaf composite timber doors, double-leaf T90 fire-rated doors, F30 fire-proof glazings, version partially with glazing cut-out, transom panel and glass side element or panel as well as automatic hinged leaf operator, rebate frames and timber block frames, partially with moisture protection on the frame bottom edge, dimensions width up to 2000 mm and height up to 3000 mm (continuous)



Floor plan for the top floor



Floor plan of the ground floor



Cross-section

## HÖRMANN EXPERTISE: ARCHITECTURE CONSULTANCY IN SWITZERLAND

## Christoph Willen on collaborating with architects

A variety of doors can also be installed in smaller building projects such as the Sankt Raphael Medical Centre in Naters. Christoph Willen supports architects in the planning stage.

## How can Hörmann support architects with the planning of doors?

As architectural consultants, we often start talking to architects as early as the pre-planning phase. We support them with our product knowledge and suggest solutions to tricky issues. We also provide tender documents and an Architects' Program for the conceptual design of building projects.

#### And how does Hörmann support its sales partners?

The sales partners are a central component of our company. After all, they ensure that our products are quickly available in all regions of the country. We support them with a wide range of training courses for the basic and advanced training of their specialist fitters or with the assistance of our project managers for larger projects.

## What are the special aspects of the building project in Naters?

What is certainly special is the great variety of products that came into play in this project. However, thanks to our wide range of products, we were able to draw from the full range. A special mention should certainly be given to the different requirements that were placed on our products in this project. For example, the treatment rooms focused on high acoustic insulation requirements, while on the floors with private flats, it was more the visual and safety factors that had to be taken into account.

#### Which individual solutions are installed here?

At the special request of the customer, the facade of the main entrance was produced by one of our sales partners, who is also a metalworker. The front was enhanced with an automatic sliding door by Hörmann. This example shows the importance of a functioning and agile sales network and the cooperation with our regional partners.



The metal facade on the ground floor was produced by Hörmann's sales partner Spiess Metall- und Torbau AG.



Christoph Willen, Hörmann architectural consultant in Switzerland.

#### What should be observed during fitting?

When fitting the sliding door, it is important that the passage height and clear passage width are measured in the building before fitting. The tiniest deviation means that the sliding door does not close properly and the customer is not satisfied with the product.

#### Which errors could be made?

The safety of passers-by is the top priority with an automatic sliding door. This must be an important topic during consultancy. The mere question of what is placed next to the sliding door – whether shelves or umbrella stands – is immensely important in order to provide necessary monitoring mechanisms.

## How do the access restrictions on the TC 80 doors and the ET 500 door work?

Access is guaranteed by using a SALTO Badge system. This was organised on-site by a specialist company. We prepared the products and equipped them with the necessary fittings. The TC 80 doors have been provided with an online badge reader in the long escutcheon. When the ID medium is held in front, the lever handle is released and the door can be opened. Furthermore, a self-locking anti-panic lock was fitted. With the ET 500 door, the garage door is also opened with a badge system. However, the hinged door is only used as an escape route and is equipped with an antipanic lock. This means that it cannot be opened with the badge.

## Which service does Hörmann offer after product installation?

Of course, we are also available to our customers around the clock after project completion with our 24-hour emergency service. Fixed maintenance contracts are often mandatory for industry buildings. With the Hörmann maintenance contract, our customers can count on professional support for regular inspection and maintenance work. One of our specialist fitters checks the condition of the system at regular intervals. This means that wearing parts can be replaced in good time and the risk of a fault is minimised.



Hörmann collective garage door ET 500 with perforated sheet infill.



Access restriction with the SALTO Badge system.

André Herge

notos:

## REANINATIVE MEDICAL CENTRE IN NATERS BY BMV WALLIS AND ARTUNE

FE F

MEDIZINIEGHES ZENTRUM SU, RANZHA




The residential floors are visible in the facade through balconies.

of the Schmidt family are located in the same building as their apartments. From grandparents to grandchildren, everyone lives and works under the same roof – almost like the farming families whose farms still shape the picturesque image we have of Switzerland today.

### Modern timber construction

The cubature of the six-storey project, on the other hand, leaves any folksy tradition far behind. The architects strictly follow the given building lot in order to create the maximum useful space. The concrete building basement follows the slope of the terrain and provides space for a garage, storage, technical rooms and - in view of being right next door to the High Alps - a ski cellar of course. What was built above corresponds to the latest developments in timber construction. After all, a timber construction was built in just six months, which also does without the usual concrete core. The staircase and lift shaft were also made of timber. and the intermediate ceilings were not cast but made of prefabricated elements from a timber-concrete composite system. The building offers the same footfall sound protection on the wooden beam ceilings, but did not need to dry out and could be occupied immediately. The facade consists entirely of absolutely unpretentious cladding. The colourtreated, horizontally attached and rough-sawn timber profiles completely encase the volume. Rather slim, they appear elegant, unexcitable and give the house a sober but by no means meaningless expression. "St. Raphael" reinterprets the alpine farming tradition of living and working together across several generations. In view of the 1970s concrete architecture in the direct vicinity, it proves that multi-storey residential construction in timber is not only possible, but also economical. And with its basic concept, it shows that healthcare projects can also have a completely different look.

## Classic health centres accommodate various medical facilities. In Naters, on the other hand, a Swiss farming tradition was revived. Because at "St. Raphael" an extended medical family lives and works under one roof – sort of like a multigenerational farm on a neighbouring alpine pasture.

If you want to get to Naters, all you need to do is take the route towards the Gotthard, turn left at Andermatt, roll onto the railway wagon and ride piggyback on rails under the snow-covered Furka Pass into the German-speaking part of the Valais. It is a path leading to inner Switzerland behind the Jungfrau, Eiger and Mönch: to the part where it is still most "Swiss". The road leads through villages with mighty timber farms - which today serve as tourist hotels - and along hamlets with ancient homesteads, built with carpentry to last, where several generations still live and perhaps even work. The architectural culture shock comes a little later: anyone arriving in Naters at the edge of the massive tracks of the Swiss Federal Railways AG will see that the boom years have left their structural traces behind. When the Simplon and Lötschberg tunnels opened, the bitterly poor upper end of the canton of Valais became a rich region that doubled its population in a very short time. And that can be seen in the community of Naters.

### "Home office"

The "St. Raphael Health Centre" has recently been built there between 1970s apartment buildings – and stands out clearly from the architectural dreariness of the surroundings. And although the "health centre" accommodates various medical surgeries, it is quite different from the prototype of a "medical centre" which often primarily reflects the medical value chain in the form of therapeutic surgeries and a pharmacy on the ground floor. In fact, the prototype of the medical home office was created in Naters. This is because the medical surgeries



The medical centre offers a wide range of medical care: in addition to a dental practice ...



... there are still the surgeries of general practitioners, urologists and complementary doctors. The treatment rooms are designed with maximum reserve.



The room for X-ray examinations is shielded against radiation.

Living space in actual fact – now a temporary vaccination centre.

## Hörmann expertise: Automatic sliding doors and more

The asymmetrically cut entrance area of the St. Raphael Medical Centre stands out clearly from the rest of the facade thanks to the red panels. The visitors pass through two automatic sliding doors before they reach the health centre. While the outer one is supplemented by glass side elements, the inner one does not necessarily need them. Both doors are partially satinised, so light penetration is low. But a sufficient visual relationship between inside and outside remains guaranteed. Moreover, three Top Comfort TC 80 doors lead into the building. However, they are not intended for public use and therefore have a Salto fitting with digital access control. Timber and glass doors provide access to the treatment rooms. One special feature is the doors to the x-ray room. To intercept the radiation, both doors have a lead inlay. An ET 500 garage door with aluminium perforated sheet infill completes the Hörmann portfolio. It forms the access to the underground garage. When closed, a centrally positioned wicket door guarantees access.



Main entrance: automatic sliding door.

Side entrance: Hörmann entrance door TC 80.

Sliding doors make optimum use of space.



Hörmann collective garage door ET 500 with perforated sheet infill and central wicket door.



Damp room: transom panel as ventilation grille.

### Location: Bahnhofstrasse 22, Naters, Switzerland

Building owner: Dr. Hermann Schmidt Architect: BmV Wallis in collaboration with artune, Frick, CH Gross floor space: 1530 m<sup>2</sup> Net floor space: 1300 m<sup>2</sup> Completion: 2020 Photos: André Herger, Seewen, CH Hörmann products: Entrance doors TC 80, automatic sliding doors, collective garage door ET 500 style 433, steel construction project doors STU, residential internal doors made of timber with Duradecor surface finish, glass doors



The windows slightly deviate from the standard due to design reasons.

## HÖRMANN CORPORATE NEWS



From the mid-1960s, Hörmann products were offered through specialist dealers.

## 50 YEARS OF HÖRMANN KG VERKAUFSGESELLSCHAFT

Hörmann KG Verkaufsgesellschaft is celebrating its 50-year anniversary this year. On 1 January 1972, the central sales company was founded as an independent unit to centrally support the existing sales activities of the growing company. This meant that sales and distribution were completely restructured. The family-owned Hörmann company was founded in 1935 as the "Bielefelder Stahltürenfabrik" (Bielefeld steel doors factory) and has steadily expanded its product

range over the decades. In the 1950s, Hörmann launched the up-and-over garage door on the market. The door quickly became a bestseller. Other products such as fire-rated doors, frames and sectional doors were added to the programme a short time later. To date, Hörmann had cooperated with sales representatives throughout Germany who operated around 200 so-called consignment warehouses where the products could be called up. From the mid-1960s onwards, these warehouses were gradually phased out. Instead, regional sales offices were established, each with their own

sales territories and employees, as well as distribution warehouses. In addition, Hörmann now only focused on specialist dealers, who in turn looked after the smaller customers. The new distribution system proved to be very successful, as tied-up capital was reduced, the ability to plan was improved and retail served as a sales intermediary. Up until 1968, 12 regional sales offices were set up across West Germany. In order to establish a certain uniformity for customers, but above all in order to support the sales activities centrally, the company management decided to found the "Hörmann



Hörmann's tool sheds are made of powder-coated metal and are therefore particularly durable.

KG Verkaufsgesellschaft" with 18 employees on 1 January 1972.

### **Close to the markets**

That was the foundation for a concept that is still successful today. Hörmann still has a decentralised sales network, now with 14 regional sales offices in Germany. The dense network of regional sales offices ensures that the retail partners have permanent contact persons and short distances. The regional sales offices are home to a complete sales team including office and field staff for the respective region. Here, as well as in the VKG's central architect consultancy service, architects and planners are supported with product knowledge and solution proposals. In addition, the sales offices have their own service technicians who can be on site quickly, adequate storage areas and their own fleet of vehicles for delivering the products. Locations outside of Europe were quickly added to the successful sales effort. Now Hörmann is represented in more than 40 countries with over 100 individual sales locations. The activities are coordinated by the central sales company with its headquarters in Steinhagen near Bielefeld. The office building was occupied in 1981. The steadily growing number of employees required numerous conversion and expansion measures in the following decades.

## NEW: TOOL SHEDS AND FIRE-WOOD RACKS

With doors, frames and operators, Hörmann offers a broad product portfolio for use in private properties. On 1 April 2022 metal tool sheds and firewood racks were added to the range. Tool sheds are used to store gardening equipment, tools, bicycles and outdoor furniture. Wood can be stored dry and safe in the firewood racks. Christoph Hörmann, personally liable partner of the Hörmann Group, sees the new product range as a practical addition to existing products: "We want to be the one who always offers everything from one source for our customers. The segment of storage space systems is a sensible expansion when the garden or courtyard is also in view." All the main components of the storage space systems are developed and produced by Hörmann internally. With the market launch of the storage space systems, the company is also expanding its range of climate-neutral products. In 2021, climate-neutral doors were offered at promotional prices for the first time. 100 per cent green electricity is used in production. These, and many other measures, allow Hörmann to save several tens of thousands of tonnes of CO<sub>2</sub> The remaining emissions are compensated by the company by funding climate protection projects in cooperation with ClimatePartner.





The VKG's new building was occupied in 1981 and has been continuously expanded ever since.

## SCHÖRGHUBER CORPORATE NEWS



The ABS edge guard is particularly suitable for door sets with high user frequency and for designs with high aesthetic demands.

## 2-MILLIMETRE-THICK DESIGN EDGE

Particularly in public building projects with high user frequencies such as schools, nurseries, hospitals or care facilities, high demands are placed on functionality, durability and quality. The design of the door leaf edges plays a crucial role here. Door sets from Schörghuber with the 2-millimetre-thick ABS edge meet all these requirements: they are aesthetic and functional as well as durable, and have a high quality of workmanship. These doors have to fulfil various functions such as fire protection, smoke protection or acoustic insulation. They also have to be robust, shock- and impact-resistant as well as resistant to moisture, dirt or germs and consequently resistant to aggressive cleaning agents. Furthermore, the design requirements for such structural situations are extremely high. Schörghuber doors with the designer ABS edge fulfil both functional and design requirements. Among other things, they can be provided with fire and smoke protection functions and with break-in resistance equipment or as barrier-free variants. ABS is the abbreviation for the plastic material "acrylonitrile butadiene styrene". It

ensures that the material is not only robust but also elastic. This prevents the edges from breaking out when the doors are opened and closed frequently. The 2-millimetre-thick edge also has a radius that minimises the risk of injury. Door sets with the ABS edge guard can therefore also be used in children's facilities and schools as well as places where the regulations of the German Social Accident Insurance (DGUV) apply. The ABS plastic is also resistant to acids, alkalis, salts, oils or alcohols, and it is considered light-resistant. At the same time, it has a positive eco-balance thanks to its formaldehyde- and chlorine-



In operation since summer 2021: the new Schörghuber flue gas purification plant.

free composition. All edges of the ABS edge collection by Schörghuber match haptically and visually with the most common HPL laminates. This means that the door leaf, frame and edge can harmonise in the same decor or be set off with a contrasting colour. The ABS edge fits on door thicknesses with 42, 50 and 70 millimetres with a door leaf width of up to 1500 millimetres and a height up to 3000 millimetres – irrespective of their rebate geometries. This is why the durable Schörghuber ABS edge is also possible with complex door systems such as double-leaf variants, room-high doors with transom panels or double rebate doors with high acoustic insulation.

### **FLUE GAS CLEANING**

For more than 30 years, Schörghuber has been using its in-house testing furnace to independently push the development and approval of new products and to test special solutions. This is a unique feature, as no other competitor has such a system available on site. At more than 800°C, the doors including all add-on parts must withstand for a certain period of time in order to qualify as a fire-rated door. The resulting flue gases contain combustion residues from various coatings, add-on parts or sealing materials. They are filtered and then released into the environment below the strict emission limits of the German "TA Luft" regulation on air quality control. As a manufacturer of climate-neutral doors, Schörghuber

has long considered itself responsible for producing in a sustainable and environmentally friendly manner. This also includes the goal of constantly reducing exhaust gases and pollutants from its systems. The flue gas purification plant, which was successfully commissioned in summer 2021, is another important step along this path. The investment in the system was made on a voluntary basis to further promote environmental thinking. The  $20 \times 5$  metre flue gas system filters both the exhaust gases of the fire tests from the chimney and the extracted room air from the hall in which the furnace is located. All that remains is pure and ecologically harmless water vapour.



Robust: ABS edge.



Schörghuber doors with the robust ABS edge can be equipped with various functions.

## TECHNOLOGY: HÖRMANN MANUAL WHEEL-BLOCKING SYSTEM MWB2

Application areas: During the loading process, the docked vehicle must not leave its position at the loading site. A risk during loading and unloading is posed by industrial trucks, which usually drive several times over the dock leveller into the cargo hold and back. When the forklift operator brakes, the lorry can move slightly forwards and thus move away form the docking position. This means that the dock leveller lip could slip off. Applying the brakes on the lorry does not provide any protection against so-called "creeping". The Hörmann wheel-blocking system MWB2 ensures that the lorry remains in the safe docking position during the loading process. With a working range of 2825 millimetres, the wheel-blocking system MWB2 is suitable for all common lorries. At 300 millimetres, the blocking height is high enough to prevent the vehicle from rolling away, but also low enough not to collide with vehicle mudguards or fairing parts. Operation is virtually intuitive. After docking at the loading site, the driver guides the carriage of the wheelblocking system on the guide rail up to the vehicle tyre. With a 90-degree turn, the blocking arm is moved out and pulled against the tyre until it locks. The sensors only recognise correct locking and clear the loading site on direct tyre contact.

Model: MWB2 Material: double guide made of galvanized steel, concrete collision block, carriage with black plastic protective cap and control light Overall length: 5265 mm incl. maintenance rails Overall width: 516 mm Working range: 2825 mm Blocking height: 300 mm Classification / load: protection against unintentional rolling away / creeping according to the FEM guidelines 11.005 class 2; resistant to pull-out force up to 115 kN according to FEM guidelines 11.005 class 3 Fitting: on concrete foundations in the loading well, 50 mm adjustment range to compensate for unevenness, warning light optionally on post, pre-wired Operation: manual, via operating lever Control: control optionally in semi-housing for stand-alone operation or MWBC control for combination with a docking assistance system and other additional functions.





Vertical view



Docked and secure: "creeping" of the lorry is no longer possible.

The loading site is only cleared once direct tyre contact is made.

## **TECHNOLOGY: SCHÖRGHUBER CONCEALED DOORS**

Application areas: clear lines and a reduced design are typical features of modern interior architecture. Frameless concealed doors are perfect for this style. The flush-fitting of such minimalist elements is ensured by the Schörghuber Zeroline, an aluminium frame that is completely and therefore invisibly integrated into the wall. The 'Zeroline function' variant was designed for project construction, 'Zeroline living' and 'glazing' mainly for residential construction. The 'Zeroline function' version can be equipped with all functions such as fire protection, smoke protection and acoustic insulation. The T30 fire-rated variant has its own national technical approval. Also characterised by their unframed, flush-fitting appearance, 'Zeroline living' and 'Zeroline glazing' are designed specifically for residential construction. Thanks to a special aluminium profile that can be spackled, plastered or cladded after fitting, the invisible Zeroline frames can be fully integrated into the wall. A plaster net that can be clicked into the frame ensures a flowing transition. It also prevents hair-line cracks from forming between the door frame and wall.

**Product:** concealed doors with invisible aluminium frame Zeroline function, Zeroline living, Zeroline glazing **Version:** single-leaf and double-leaf, frame can be combined with 50, 70 and 73 mm door leaf thickness, optionally with transom panel **Functions:** T30 fire protection, smoke protection, acoustic insulation up to Rw,P = 42 dB, break-in resistance equipment RC 2, damp room, composite timber. **Dimensions** (frame hold dimension width × height): single-leaf: 50 mm Door leaf thickness: 591 – 1280 × 733 – 2483 mm, 70 and 73 mm Door leaf thickness: 591 – 1280 × 608 – 2733 mm (up to 3125 mm with transom panel), glass door 8 mm: max. 1000 × 2800 mm, glass door 10 mm: max. 1000 × 2400 mm double-leaf: 50 mm **Door leaf thickness:** 1341 – 2466 × 608 – 2483 mm (up to 3125 mm with transom panel), 70 and 73 mm **Door leaf thickness:** 1341 – 2466 × 608 – 2733 mm (up to 3125 mm with transom panel) **Fitting in:** brickwork, concrete, gas concrete, partition walls **Surfaces:** HPL laminate, premium paint coating, veneer, unfinished for on site coating.





Horizontal view of solid wall



Concealed doors blend inconspicuously into the wall.



Technical design of the Zeroline aluminium frame.

## ARCHITECTURE AND ART MATTHIAS REINMUTH



Glimpse (Butterfly), 180 × 140 cm

Glimpse (Warm Up), 230 × 190 cm, 2019

Mission (Giverny),  $230 \times 190$  cm, 2021

## Almost everything about architecture is predictable. If art looks at it, it too becomes logical, comprehensible. But how does Matthias Reinmuth's work relate to architecture?

Not at all to start with. The works of the Berlin artist could initially be described as a sensual rush of colour. You get the impression of experiencing what is called synaesthesia, the random blending of colour, sound, taste when you look for a long time. Structure? Rules? Control? Not with Matthias Reinmuth. He likes to leave it to chance how his pictures look. Or at least to some extent. For example, he gives free rein to the colours in the creation process by moving the horizontal canvases slightly, causing the colours to mix at random. Repeatability is zero. Matthias Reinmuth describes what emerges as "background noise". And if we want it, there we have the reference to architecture. Because, as we know, every built space also has this background noise. There is no complete silence. So in the eyes of the architect, the pictures could be the visualisation of what is not built, the atmosphere of the space, so to speak. And why not? Fortunately, the artist leaves those questions unanswered. In the perception of the gallery owner Arne Linde, too, "depths and suggestions of space open up". Perhaps, as the assumption goes, the viewer is looking into a universe. And right now, at the latest, it becomes clear what Matthias Reinmuth is actually offering with his art: a wormhole into other worlds. Or put more simply, a visual escape from everyday life.

#### Artist: Matthias Reinmuth

Born 1974 in Heilbronn, Germany

Studied from 1999 to 2004 at the Berlin University of the Arts (UdK) under Georg Baselitz and graduated as a master student. Up until the end of January, his works were on display for around three months in the solo exhibition called "mischen" (mixing) at the Museum gegenstandsfreier Kunst in Otterndorf. His works are represented in the collections of the Städtische Galerie im Lenbachhaus Munich, the Armory Center of the Arts, Pasadena, California, USA, as well as in numerous private collections. Matthias Reinmuth lives and works in Berlin. www.matthiasreinmuth.de





Exhibition of Matthias Reinmuth's works at the Museum gegenstandsfreier Kunst in Otterndorf.

## **RECENTLY IN ...** BIELEFELD

In the last issue we were in Berlin, this time in Bielefeld. Klaus Reinhardt knows both cities. He is a practising doctor in **Bielefeld and, as President of the German** Medical Association, he is often found in Berlin.

### It's your choice: Bielefeld or Berlin?

I like being in both cities. But Bielefeld is my home town. The cultural offer is remarkable for the size of the city and the quality of life is high. I also have a large circle of friends in Bielefeld. Well, in Berlin too, but the one in Bielefeld is older and has grown over time. So I can't really decide. But I don't have to. Since the train link between the two cities is excellent and I can be in Berlin in two and a half hours, I remain loyal to both cities.

### What makes Bielefeld unique?

Bielefeld is a city of short distances in comparison to Berlin. Everything is very close together spatially. This saves time, which can then be invested in the remarkable cultural



scene, for example. Its offer is outstanding and anything but provincial.

## What do you say to people who claim that Bielefeld doesn't even exist?

I advise them to visit the Bielefelder Alm on a Saturday when the weather is fine and spirits are high. Arminia might not be the highlight of the German football league but they don't hide away and are lively proof that Bielefeld does in fact exist.

## What do you like about Bielefeld from an architectural point of view?

Unfortunately Bielefeld is not a beautiful city in the classic sense. Too many buildings were victim to the Second World War. But there are still some outstanding structures. First and foremost the Kunsthalle by Philip Johnson (1968) or the Rudolf-Oetker-Halle by Tietmann and Haake (1930) as well as the revitalised Ravensberger Spinnerei (1857), which now houses two museums, a cinema and an event location, among other things. Smaller but also noteworthy is the Sparrenburg Visitor and Information Centre and the Info



Visitor centre Sparrenburg/Johannisberg by Max Dudler.

Stefan Mülle

## PREVIEW

#### Dr. med. (I) Klaus Reinhardt

Born in 1960 in Bonn, Germany

Studied medicine at the University of Padua/Italy and passed the state examination there in 1990. He is a general practitioner in a private practice and joined his parents' family practice in Bielefeld in 1993. He has been Vice-President of the Westphalia-Lippe State Medical Association since 2005. In 2011 he took over the chairmanship of the Hartmannbund. In 2015, he was elected to the board of the German Federal Medical Association. He has also chaired their fee schedule committee since 2016, which negotiates a fundamental reform of private medical charges together with the Association of Private Health Insurers. Since 2019, Dr Klaus Reinhardt has been President of the German Medical Association and President of the German Medical Congress. www.bundesaerztekammer.de

Point on the Johannisberg by Max Dudler (2014).

# What would you want for Bielefeld from an architectural point of view?

What is needed is a longer-term master plan for urban development that does not ignore demographic change. How to deal with areas such as Baumheide and Stieghorst is also important. Regardless of social aspects, they should also be considered from an urban planning point of view. Generally, we have to upgrade the squares in Bielefeld. They need some more character and flair.

### Do you have any cultural tips for our readers?

Apart from the Kunsthalle and the Kunstforum Hermann Stenner, we have an excellent music theatre, a dedicated play theatre and a first-class cinema scene in Bielefeld. The Lichtwerk and Kamera cinemas have a fantastic, highbrow programme. Foodwise I like to go to Numa, Gui and to Bar Centrale – nice places with good cuisine.

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



Philip Johnson designed the Kunsthalle Bielefeld, opened in 1968.

## PORTAL 54: Openings

Openings, large or small, are an important design tool for architects. So they don't just do a functional job. Especially in the case of industrial buildings, they are the ones that give structure to designs that are often geared towards efficiency. In the next issue, we will present projects that are primarily about large openings, namely doors and gates. There you can see for yourself how renowned architects incorporate them into their designs.



Doors at the fire brigade centre in Cologne-Kalk by Knoche Architekten.

High-quality entrance doors for walkways: High acoustic insulation in energy-efficient residential construction



- Excellent acoustic insulation up to 42 dB
- Very good thermal insulation with a U<sub>D</sub>-value of up to approx. 0.95 W/(m<sup>2</sup>·K)
- Optionally with RC 2 security features or as El<sub>2</sub>30 fire-rated door with 32 dB acoustic insulation

