## HORMANN

# PORTAL 17

**PORTAL** 17 SEPTEMBER 2009 INFORMATION FOR ARCHITECTS FROM HÖRMANN



Projects from gmp von Gerkan, Marg und Partner; Nickl + Partner; Hans Haff; TMK Architekten

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The high number of children born with cardiac defects in Germany alone was the perfect reason to set up a special cardiac centre at the University Hospital of Cologne. Design: gmp von Gerkan, Marg und Partner, Hamburg

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As a part of extensive restructuring, the existing facilities at the largest hospital in Hamburg were expanded to include a high-tech specialised clinic. Design: Nickl & Partner Architekten, Munich

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Thanks to a private foundation in Germany, a children's hospital was set up in the south of Cambodia to ensure a better life for local children over the long run. Design: Hans Haff, Königswinter

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The large new building for the hospital in Minden ensures that people in the region receive the best care. Design: TMK Architekten Ingenieure, Düsseldorf

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Cover illustration: Foyer of the University Medical Centre Hamburg-Eppendorf Photo: Stefan Muller-Naumann, Munich



Christoph Hörmann, Martin J. Hörmann and Thomas J. Hörmann Personally liable shareholders

#### **Dear Readers**,

Modern medicine ensures that we live longer than ever before, but it still cannot prevent diseases. Being ill is a great strain on those involved, but we in Germany are in the lucky position to have access to well-equipped hospitals, which, as our report on Cambodia shows, is not always a matter of course in other countries. Thanks to active support from the private Sonja Kill Foundation, in cooperation with the Catholic Pontifical Missionary Childhood of Germany "Die Sternsinger", it is now possible to provide a small portion of a population traumatised by a bloody civil war with basic medical care. A brand-new hospital was recently completed on the outskirts of a small city on the southern coast of Cambodia. In contrast, the modern, state-of-the-art hospitals in the Federal Republic of Germany must seem as if they come from a different world.

After restructuring, the University Medical Centre Hamburg-Eppendorf is now one of the best-equipped hospitals in Europe. Sixteen operating theatres are fitted with extremely complex equipment that is both mobile and versatile, allowing for use in various disciplines. Doctors can perform minimally invasive surgeries or a remote diagnosis using large screens. Nickl & Partner from Munich were the architects in charge of the first construction phase. Nowadays, more and more value is attached to patient well-being than just to hospital equipment. This is why the Johannes Wesling Clinic in Minden calls itself a "clinic in the countryside". The architects, TMK Architekten Ingenieure, Düsseldorf, designed the patient wings to face south. Peaceful gardens in between provide a beautiful view towards the scenic Wiehen hills and also lead down to an artificial lake. Convalescing patients can leisurely stroll around the grounds and enjoy nature. In contrast, architects for the Cologne Cardiac Centre, located right in the city as an extension of the University Hospital of Cologne, had to concentrate more on the interior. A five-storey foyer flooded with light, as well as intimate lounges between the patient rooms with entrances to balconies, were created by the Hamburg architecture firm gmp von Gerkan Marg und Partner. A sunny colour scheme, trees throughout the 5-storey glass foyer and plants in the garden courtyard would seem more at home in a hotel than a hospital. Whether you are involved with hospitals as an architect designing them or a patient staying there, we wish you the best of health or, in the worst case, that you get well soon!

Martin J. Hörmann

Thomas

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the lot www

Christoph Hörmann

## HOSPITAL CONSTRUCTION – IS THIS ACTUALLY A JOB FOR ARCHITECTS?

Architects like to come up with their own ideas for their designs. Renovating old, existing buildings with long halls tiled in grey linoleum, harsh lights and the smell of disinfectant doesn't seem to quite fit this scenario. Is hospital construction more of a job for planners who examine and optimise work processes and then transfer their findings to create the right arrangement? The exact opposite is the reality.

An architect can only be successful in the special field of healthcare if he is able to see the whole picture and incorporate influences, flows and findings from other areas of hospital construction. One thing is certain: It is a challenging and exciting task that is, nevertheless, greatly underrated. It is almost impossible to achieve any kind of public recognition and regard with these types of buildings. Museums, shopping centres, airports or train stations are considered more prestigious. But why is this the case? Maybe it has something to do with the still-existent taboos of illness, aging and death?

One common prejudice is that a hospital must be, above all, functional and that the design is constrained by an extremely tight budget. But this isn't the only thing that has to be taken into consideration during planning, as designing buildings for the ill requires psychological and sociological skills, as well as a knowledge of the processes for construction, operation and efficiency. Patients find themselves in an extreme situation both physically and emotionally. They often feel at the mercy of the circumstances and their environment. In this case, architecture can increase or reduce their fears. One important goal is to communicate a sense of orientation, clarity and safety and, in the best case, even assist the healing process.

A planner has to be able to put himself in the shoes of a sick person and make patient needs the basis of his design. A person who is ill usually has very little to do and is more attentive to the room around him and all the little details. So-called "soft" factors are decisive for creating the right atmosphere in a hospital or ward: emotions, dimensions, perspectives and orientation, colour, material and light. Architecture suited to patient needs can thus become a factor for improving the image of the respective hospital.

An architect working in healthcare must be an all-rounder. He must approach planning from all possible directions during each phase and combine every individual aspect related to design, function and efficiency to create an overall solution. An interdisciplinary procedure is essential during the early design stage. The planner is a communicator, moderator and intermediary, mainly for the patients and other users such as doctors and carers, as well as the supporting organisation, authorities and all others involved.

This task requires courage, intuition and the ability to question common patterns of behaviour, regulations and standards in order to adapt them to social changes in a timely manner. To comply with the stringent demands for utilities management and medical technology, specialist engineers must be included early on so that the design can be adapted to the technical requirements right from the start. The main portion of construction costs are applied to these building jobs. These days, structural engineering costs are often less than 50 per cent of the total construction budget. New buildings are more

#### **STEFAN LUDES**

Born in 1962 in Dorsten/Nordrhein-Westfalen, Germany

1984 — 88

in Aachen Since 1992 Freelance architect with offices in Berlin, Munich and Halle Main focus: buildings for healthcare, research and education Text: Stefan Ludes and Norma Müller

Studied architecture and sculpture



and more rare these days. Approximately 90 per cent of all orders involve restructuring, retrofitting and further development of the existing structural fabric. Usually, facilities consist of several buildings that were constructed at different times. Future-oriented planning must integrate and optimise structural, strategic, functional and economical aspects. Master or target planning are useful tools for this.

#### What is target planning?

This tool was created back in the 1960s for the organised development of hospitals and healthcare facilities. Target planning is seen as the decision-making basis for longterm hospital development. It is used to define how the planned target can be achieved in a clear time period. The development sequence is structured in a hierarchy and sub-divided into construction stages.

This ensures that individual measures are based on an overall concept and helps to avoid bad investments. The various steps in target planning consist of a survey, analysis and assessment (actual state) and formulation of set targets (specified state). After conducting a specified/ actual state comparison, a target construction plan is worked out that consists of a technical building design, preliminary planning of extension options, sub-division into construction stages, cost forecast and – of particular importance – a function and schematic plan. The required rooms are assigned to function areas in accordance with the space allocation plan, such as: examination, treatment, care, administration, social services, research and teaching, incoming supplies and disposal, and other uses.

#### The design and its implementation

In contrast to office and administrative buildings or even industrial facilities that only require rooms for very few specialised activities, hospital construction must coordinate numerous functions under one roof. The space allocation plan uses various types of rooms with different sizes and equipment, such as wards, common areas and lounges, surgeries, operating theatres and labs, other office space, possibly a café and a small shop or kiosk, a library, and, last but not least, rooms for teaching and research.

Integrated into the landscape: the Helios Clinic in Bad Saarow.





Lounge in the Carl von Basedow Clinic in Merseburg

Most already-standing buildings have to be renovated or expanded while still in use. For the architect, this means that he has to work out a precise logistical concept that takes the particular sensitivity of the situation into account, for example through exact scheduling of jobs that produce dust and noise, special considerations for areas that must remain quiet or even ensuring that access to escape and rescue routes for the handicapped is maintained at all times.

This phase is characterised by an intensive cooperation with users. In order to ensure smooth work flows in

day-to-day hospital operations, it is extremely important that room arrangements and routes are adapted to the employees' work methods and personal experiences are integrated during the planning phase. In standing buildings, the planner also checks whether the internal organisation is outdated. In doing so, the focus is on maintaining the building's structural properties, while updating it to the latest standards in medicine, science and technology. In new buildings, criteria such as flexibility and adaptability in terms of possible extensions, adding a new storey, and changes in utilisation and function all have to be taken into account. Planning is done with static and constructive systems that allow for flexibility and retrofitting, such as ceilings without joists, avoiding columns wherever possible, use of extension grids, and coordination of structural engineering and installation technology.

#### Developments and trends in hospital construction

Hospital designs and planning has changed a lot over the past few years. On the one hand, clinics and their operators must act as an independent commercial enterprise.

The right to choose your doctor and hospital results in competition. The patient is a customer and guest who checks the offers and takes equipment, atmosphere, location and surroundings into account when making a decision. More and more concepts usually in use at spas and hotels are now found in this market. In addition, healthcare policy and demographic changes have resulted in new developments in this sector. The total number of facilities has gone down in the past few years. But the length of time patients remain in the hospital has also been substantially reduced. Some of the reasons for this development is that compensation for medical care is no longer tied to the duration of treatment, but is calculated at a flat rate according to the type of service. Healthcare reforms aiming to increase efficiency, as well as new and improved forms of treatment, consequentially mean shorter examination periods. The number of private hospitals is growing considerably in this highly competitive market.

In contrast, public and charitable organisations are dropping at the same rate. Smaller facilities are merging to present a stronger force on the market. Besides in-patient treatment, hospitals are offering more and more outpatient services, blurring the boundaries. While it was clearly defined in the past whether a patient went to a clinic, surgery or a beauty salon, the trend nowadays is for more integrated services, all of which are offered under one roof. If trends, developments, figures and costs are changing, how long will hospital planning actually remain up-to-date? The life cycles for healthcare facilities have become shorter. Clinic buildings from the late 19th and beginning of the 20th century were built to last a hundred years, but continual changes in medical technology now produce a life cycle of 20 to 30 years. The building shell must offer space for the latest technical and scientific developments for modern-day medicine and be able to keep up with growing requirements. One special job for the architect is to unify what appears to be the impossible: a smooth treatment process through optimised processes in a patient-oriented atmosphere. The building as a healing environment with a positive mood and personal approach is always at the forefront.



View of an operating theatre with modern equipment

## **University Hospital of Cologne Cardiac Centre**

Over 5000 children are born with heart defects every year in Germany, overshadowing the joy of birth with worries and fears for the health of the newborn. In such a situation, it is essential to have a place to go where specialist doctors can take care of these tiny patients and everything is done to make the children and parents feel at ease.

In a hospital, long routes can mean the difference between life and death. This is why it is so important to keep related areas close to each other. But ensuring interdisciplinary cooperation between associated departments is even more important. This is why a cardiac centre envisioning such a cooperation between the cardiology areas was founded at the University Hospital of Cologne back in 1993. This close cooperation soon became even more efficient: The cardiac centre moved into its own building and now provides treatment for all types of heart disease (cardiology, paediatric cardiology, cardiothoracic surgery and vascular surgery) under one roof, while still remaining closely linked with the existing clinic areas.

A competition was held in October 2001 to select the architect for the new cardiac centre and was won by the architecture firm gmp von Gerkan, Marg und Partner based in Hamburg. Construction began three years later and was of a sensitive nature, as the clinic was still in operation in the adjacent buildings. The new section of the clinic was officially opened to the public in October 2007. Equipped with the latest in medical technology, this cardiac centre fits into the comb-like structure of the older clinic buildings and blends into the facade line of the neighbouring blood bank.

All of the examination, treatment, operating and care areas are located in integrated departments on a total of four storeys and one recessed storey. Two levels underground house the technical facilities and underground garage. The walkway at the university hospital will be extended down to the cardiac centre. This three-storey glass "corridor" connects the new building to the pathology department, thus providing personnel with easy access to the central section of the hospital regardless of the weather.

Patients and visitors are greeted by a glass entrance at the cardiac centre that leads them into a bright foyer that sweeps all the way up to the roof of the building and contains benches under deciduous trees and warm materials such as cherrywood, all combined to create a comforting atmosphere. The gabled hall facade and the entire lift core are covered with timber plates with a black cherry veneer.

The floor is made of mottled, dark-grey basalt. Bright and friendly colours are used on the individual wards to counteract the sad and dull daily hospital routine. Intimate leisure rooms for patients and lounges where they can meet relatives and friends create a balanced mix of peace and activity. The parents' rooms and playrooms in the paediatric cardiology department on the second floor are connected to an outdoor play area surrounded by green pergolas. The wards on the third floor are characterised by floor-to-ceiling glazing and timber cladding on the walls. Each unit of two double rooms has a lounge and balcony arranged in between.

The post-and-beam facade of the new H-shaped building is clad with light-coloured Kirchheim shell limestone to match the rest of the facility. Exterior window shades made of shimmering red aluminium provide the classic facade with an additional structural element, resulting in a distinctive appearance.



View of the main entrance from Kerpener Straße. The new cardiac centre has the same comb-like structure as the rest of the facility, as well as matching facade cladding made of natural stone. Longitudinal section (bottom)





An accessible, leafy roof terrace is located over the first storey in the rear (left)  $% \left( {\left( {{\rm{A}} \right)_{\rm{A}}} \right)_{\rm{A}} \right)$ 

A glass walkway provides a link to the central section of the university hospital and protects pedestrians from the weather (right) 1st storey layout (below left) 2nd storey layout (below right)









General paediatric cardiology ward with equipment appropriate for children throughout



OWNER: University Hospital of Cologne, represented by Medfacilities

DESIGN gmp von Gerkan, Marg und Partner, Hamburg

**LOCATION** Kerpener Straße 62, Cologne, Germany

#### Photos

Jürgen Schmidt, Cologne baubild / Stephan Falk / Hörmann KG

#### **HÖRMANN PRODUCTS**

Single and double-leaf T30 sheet steel fire doors H3, H3D; single and doubleleaf T90 sheet steel fire doors H16; single-leaf T90 sheet steel fire hatches H16; single-leaf multi-purpose doors D45, D65; classic HG-S rolling grille

Room in the intensive care ward. Glass walls allow for constant observation of the patient. Hörmann steel fire door in an underground level (below left) Waiting area for ward visitors (below right)





## **University Medical Centre Hamburg-Eppendorf**

Hamburg's second largest hospital facility was considered exemplary back at the end of the 19th century. A good one hundred years later, the clinic, commonly known by the abbreviation UKE, has people talking once again. The new building, housing 16 specialised clinics under one roof and a corresponding block of wards, represents a type of medical care that links expertise in a small space, making this university clinic one of the most modern in Europe.

Those in charge of constructing the new clinic on the premises of the University Medical Centre Hamburg-Eppendorf likened the process to open heart surgery. The entire facility, built between 1885 and 1888 at the behest of then Medical Director Heinrich Curschmann, was designed as a group of 55 buildings in a large park outside the city limits in the district of Eppendorf. It is seen as a consistent instance of the "pavilion-style" hospital that was modern at that time.

After the Second World War, the idea of restoring the structural fabric was declined, as such a wide-ranging distribution of buildings no longer fit the modern concept of patient care. Instead, larger clinic areas were created for interrelated functions that integrated individual pavilions. This resulted in an ever more confusing conglomerate of buildings, until the city senate passed a master plan in 2000 for the UKE that included restructuring the buildings at a price of almost 350 million euros.

The first construction stage for the new clinic was completed in January 2009, and now centralises 16 specialised clinics that work in close cooperation with the adjacent cardiac and tumour centres. The new U-shaped building clearly distinguishes the different functions. All of the medical departments are located in the continuous, three-storey section in the bottom, which provides the building with a strong basis thanks to a brick facade. The ward blocks are arranged on this basis similar to pavilions, harkening back to the former structure. An offset arrangement results in small courtyards that cleverly bridge the great depth of the building and ensure enough daylight in the patients' rooms. Rooms still have views of the park, despite this dense layout. Bright single and double-bed rooms with large windows, parguet floors and en-suite bathrooms provide patients with privacy. Nearby terraces can also be used to rest outside. In contrast to the bottom section, the facade of the ward blocks is more transparent. Fixed and movable elements, arranged vertically, provide it with a structure that can be changed to fit the needs of the patients, depending on whether they prefer the room to be brighter, darker or to simply prevent others from looking inside. The main city entrance resembles a hotel driveway. It is characterised by a large projecting glass roof that directs visitors into the ten-metre-high foyer and towards one of the three blue reception desks. An escalator leads up to the visitors' level, which is designed like a boulevard with a café and other businesses that also serves as the foyer for the ward blocks. The outpatient clinics for various disciplines and the diagnostics department are located on the ground floor. They are all close to each other, thus ensuring short routes for patients. Thanks to this layout, the medical sections on the two

basement levels can do their work undisturbed by visitors. The clear layout of the new clinic provides patients with a feeling of emotional security, as the bright rooms are open and relaxing. This uniform complex of buildings ensures high-quality patient care that is appreciated beyond the Hamburg city limits.



Visitors are provided with information and guided to their destination in a well-proportioned entrance hall.





Graphic depicting visitor and patient flows (top) Location of the new clinic within the old building structure (centre) Future plan (bottom)







A distinctive canopy over the main entrance also provides illumination in the evening and at night.

Sliding elements on the facade facing the inner courtyard make it possible for patients to change the lighting in the rooms or prevent others from looking in (bottom)



OWNER University Medical Centre Hamburg-Eppendorf

**DESIGN** Nickl & Partner Architekten Al München

**SUPPORT STRUCTURE PLANNING:** Krebs und Kiefer, Darmstadt

**LOCATION** Martinistraße 52, Hamburg, Germany

#### PHOTOS

Stefan Müller-Naumann, München baubild/Stephan Falk/ Hörmann KG

#### **HÖRMANN PRODUCTS**

Single and double-leaf T30 steel fire doors HE 310/HE 320H with box frames, some with automated operation; T30 steel fire-proof glazing, H 330 S-line with box frames; steel smoke-tight doors, S/RS 100 / S/RS 300 with box frames

#### **SCHÖRGHUBER PRODUCTS**

T30 timber doors and fire doors, T90 timber doors and fire doors, timber smoke-tight doors, T30 timber wet room doors, T30 timber sliding doors

A colourful ward hallway with an information desk In the ward block, T30 aluminium fire doors with hold-open devices separate the waiting area from the corridors with rooms (bottom)





## Sonja Kill Memorial Hospital in Cambodia

Due to a decades-long civil war, professional medical care was almost non-existent in Cambodia, let alone a hospital. When the founders of the German Sonja Kill Foundation heard of this need, they provided the funds to construct and maintain a children's hospital.

Medical care that is ensured over the long-term is a matter of course for Western Europeans. It may not be free-ofcharge, but it is certainly affordable. In contrast, most Cambodians are so poor that illness can equal financial ruin. And many people in this country are susceptible to illness. Many small children and nursing infants die as a result of contaminated water.

Dr. Winfried Kill learned of this dramatic situation when he met a dentist working in Cambodia on a long-distance flight and decided to help on the spur of the moment. The Sonja Kill Foundation founded by him and his wife Rosemarie (named in memory of their daughter who died in a tragic accident) is doing exactly this in close cooperation with the Catholic Pontifical Missionary Childhood of Germany "Die Sternsinger": They are providing needy people, above all young girls, with support.

After a visit to Cambodia in 2003, the couple decided to build a hospital to ensure a better life for local children over the long run. The Cambodian government donated 70,000 square metres of land in the south of the country, approximately 150 kilometres from Phnom Penh. Hans Haff, a German architect with vast experience working in the tropics, took over planning responsibilities, as trying to apply German construction standards does not quite work the same here. An extreme climate with a rainy season and dry season greatly influences the architecture in this region.









OWNER

Sonja Kill Foundation, Bergisch Gladbach, Germany, in cooperation with the Catholic Pontifical Missionary Childhood of Germany "Die Sternsinger", Aachen, Germany

**DESIGN** Hans Haff, Königswinter, Germany

**PROJECT MANAGEMENT** Grischa Roehrig, Munich, Germany

**LOCATION** Kampot, Cambodia

**PHOTOS** SKMH-Team, Kampot, Cambodia HÖRMANN PRODUCTS Steel ZK internal doors Aluminium AZ 40 internal doors OIT 40 internal doors

FURTHER INFORMATION

www.SKMH.org

Overview (ground level) of the entire facility (left) The living quarters for the doctors and nurses are grouped around a small lake (top)

Walkways protected from the weather connect the individual pavilions (bottom)





While most hospitals in Germany have a compact construction, a pavilion style proves to be better-suited for tropical areas. The breeze from the nearby sea can blow through the buildings, preventing moisture from condensing on the walls. This is why only a few of the window openings are glazed and are covered instead by fixed timber louvers that ensure good ventilation of the rooms and also protect against overheating. Only the operation theatre and adjacent wards are air conditioned. But a European influence on the architecture is still evident. A simple steel concrete frame construction, consisting of a base plate, supports and a top panel is infilled with bricks and then plastered. A timber support holds the large projecting hipped roofs covered in red tiles, which are crowned at the ridge by small roof vents that allow air to circulate in the attic. But architect Hans Haff was interested in much more than just a functional building. The nearby Bokor Mountains inspired him to create this stirring roof landscape. The walkways that connect the individual houses are a special feature. These covered paths protect pedestrians during the rainy season and provide shade in the summer.

As the climatic conditions hinder digging in the ground, all supply lines run underneath the roof ridges, which also makes it easier to quickly detect and repair any damage. The extensive facility is organised according to medical disciplines, as in a European hospital, but must be selfsufficient in almost all areas, due to its rural location. Power generators, a water treatment system (that draws energy from solar collectors) and an on-site waste disposal system safeguard operations to a large extent. In addition to living quarters for personnel, housing for relatives has been constructed on the premises, so parents from far away can stay nearby while their children are being treated. This is a service that is unparalleled.

## Johannes Wesling Clinic in Minden

This new major hospital was built on the outskirts of Minden in just three years and replaces several clinics scattered throughout the city. Planned in line with cutting-edge ideas for healthcare and organisation, the facility offers patients a maximum level of care. It also ensures medical care for the entire region.

Clinic partners TMK Architekten in Düsseldorf were put in charge of creating a "clinic in the countryside" at the edge of the Wiehen hills with loosely arranged low buildings. Building modules of approximately 600 square metres are used for various medical centres at the two main access areas, with the children's hospital set apart by its varied architecture.

The landscape and architecture are interwoven through walkways, gardens and courtyards arranged between the facilities. The buildings were limited to just three storeys, creating sunny outside areas on a human scale, and also ensuring that all rooms have sufficient daylight and natural ventilation. One advantage of this is that all interdependent functions can be combined on one level. Areas for incoming supplies and disposal systems are concentrated in the basement.

To the north, the lower level follows the lines of the sloping terrain, thus creating, to a large extent, a functional unit above ground. Thanks to consistently implemented horizontal and vertical links, hospital logistics can rely on an automatic conveyor handling system with self-guided trolleys controlled by robots. The primary reasoning for the specific orientation of the building on the premises was to ensure that the care areas are arranged equally towards east and west. This is why two patient wings branch off the walkways towards the south. South-facing gardens in between highlight the lovely view of the Wiehen hills, creating an attractive landscape for the outer lying care areas. The gardens are graduated according to their intensity of use, creating a natural transition between an area with numerous plants and the more commonly used areas in the patients' garden. This integrates the new building in the environment without dominating the adjacent housing or cutting through the landscape. The paths for visitors and patients already go their different ways at the eastern entrance hall. The care areas are accessed over the southern visitor walkways. Various cafés and cafeterias for visitors, patients, and employees of the different centres are arranged along this walkway, as well as the dining area for personnel, all of which ensures short routes. These quiet areas with distant views have an open design over the entire height of the building. In contrast, the walkway to the north of the entrance hall bundles patient traffic. Here, a differentiation is made between an external traffic artery for ambulatory patients and a parallel internal traffic artery for non-ambulatory patients. All control centres and examination and treatment facilities relevant for this area are arranged along this walkway, providing patients with a simple and clear orientation. The central operating theatre department is located on the first floor and comprises two blocks with six operating theatres each in the centre of the treatment building, directly above the entrance for non-ambulatory patients. The intensive care wards are directly connected. All air conditioned areas face north. Besides providing patients with medical care, the Johannes Wesling Clinic also supports the healing process through integration of art and nature.



The new hospital in Minden fully lives up to its description as a "clinic in the countryside" (top) Function and site plan, ground level (bottom)





A chamber-like structure provides space for gardens and courtyards in between (left) View of a patients' garden from a crossway (right) Driveway to the Johannes Wesling Clinic with entrance (bottom)





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Efficiency is often the argument provided to merge several small hospitals into a larger entity that can provide maximum care. Portal discussed the advantages and risks of this development with Harald Klösges from TMK Architekten, who served as the architect and project manager for the Johannes Wesling Clinic in Minden.

**PORTAL:** Is the development towards large hospitals an economic or medical necessity? As an architect for a high-performance facility that even incorporates robots, how do you create an environment that promotes the healing process?

HARALD KLÖSGEN: Hospitals in Germany are still classified as basic, specialised and maximum care facilities. In particular, the latter type of hospital has a mission that goes beyond regional care, due to its high level of efficiency and comprehensive services that involve differentiated technology.

As a consequence, maximum care hospitals are not set up as a result of economical pressure, but due to medical necessity. An extended range of services also demands buildings with the right amount of space and appropriate number of rooms.

**PORTAL:** Isn't one danger of wide-ranging facilities that the routes for personnel and doctors become longer and longer, reducing the time for patient consultations? **HARALD KLÖSGEN:** Well, vertical routes may be shorter, but they are not necessarily faster. If you take waiting times for lifts into account, they are sometimes even longer. When planning hospitals, it is essential that the functional areas are laid out in a manner so they correspond to each other in terms of content and proximity. Routes that are frequently travelled must be kept as short as possible.

Also, a horizontal layout corresponds more to the human scale. Almost all of the buildings at the Minden clinic are three storeys high, resulting in an agreeable building height of 12 metres on average. Gardens or courtyards with widths of 20 to 22 metres are arranged in between the buildings. The transparent main access areas with three centres open throughout all levels, with lifts and inviting stairways, cafés and restaurants, plus lounge areas bring order to the facility and provide patients and visitors with easy orientation everywhere they go and bring the outdoors inside.

The limit to horizontally designed hospitals is only reached if this is no longer possible.



**PORTAL:** Is it possible to quantify the synergy effects that come from combining all of the specialist departments? How often are different specialists actually involved in the treatment of a patient?

HARALD KLÖSGEN: The central idea is to first optimise the basic working processes in the hospital. Medical and economical questions play a role in this. However, patients mainly benefit from an improved working process. Examinations and treatments that are scheduled close to each other and done nearby result in fewer transports, shorter waiting times and, in turn, shorter treatment times. An ever more common tendency to specialise in medicine now makes it more necessary to think in an interdisciplinary manner, i.e. across specialisations and integrally, in order to coordinate the best-possible patient treatment.

By the way, only specific functional areas are structured and centralised in an interdisciplinary manner. There will always be a need for special areas with individual tasks and special room setups and equipment.

**PORTAL:** Where do you see room for improvement for the model of maximum medical care in a building? Or should you differentiate between optimum primary care and idyllic after-treatment, i.e. spend time after a serious operation in a smaller unit where the main priority is on patient care?

HARALD KLÖSGEN: Healthcare and hospital construction will continue to experience many changes and developments in the future. Graduated care, alternative care concepts, and private care organisations, and even patient hotels, are all ideas that are taken into account in hospital planning.

Care areas are seen more and more as patient living quarters and they will increase in importance, particularly in large clinics. Changing concepts for living also change patient demands for hospital care. Whether multi-bed wards are even the right answer to this is questionable. **DESIGN** TMK Architekten Ingenieure, Düsseldorf, Germany

> **LOCATION** Hans-Nolte-Straße 1, Minden, Germany

Association of regional clinics,

OWNER

**AUTHOR** Klaus-Dieter Weiß, Minden, Germany

**PHOTOS** baubild / Stephan Falk / Hörmann KG Jochen Stüber, Hamburg, Germany

#### **HÖRMANN PRODUCTS**

Single and double-leaf T30 fire doors, H3 sheet steel Single and double-leaf T90 fire doors, H16 sheet steel Single-leaf steel T30 fire doors HE 310 with box frames Industrial sectional doors SPU 40

The arched timber construction around the small vestry appears similar to a pair of open arms (left)

View of a public walkway for visitors (right)

Self-guided trolleys controlled by robots move around the basement. The corridors have been equipped with Hörmann fire doors with automated operation (bottom)







## **CORPORATE NEWS**



#### FLAT AND FLUSH SURFACE DESIGNS

Smooth and continuous surfaces are aesthetically pleasing. Numerous Hörmann products enable a sleek and flush design for private, industrial and construction project doors and fire doors.

#### 1. SUPERIOR FACADE DESIGNS

A new Hörmann sectional garage door gives private building owners more design options. It is prepared for on-site infill and is clad with facade elements. This way, the facade design can continue on the garage and the door can be almost seamlessly integrated

Clad sectional garage door (1)



into the building facade. The door can be clad with facade elements made of timber, metal, ceramic, plastic and many additional materials.

# 2. FLUSH CLOSING FIRE DOORS

Flush closing STS fire doors and smoke-tight doors let you seamlessly integrate fire protection elements. When closed, the frame and door leaf are plane: If properly fitted, the wall, frame and door leaf form a flat surface. A frame with edge recess can also be installed to create a special look. Glazing beads also come in a flush-fitting version. STS doors are available with a galvanized surface, in a stainless steel version and in one of many RAL colours. Fitting advantage: The doors can

View of frame (2)



be fitted without any mortar, thus preventing damage and spills. T30 and T90 doors with concealed hinges for an attractive appearance were recently added to our programme.



## **3. COMPREHENSIVE RANGE OF FRAMES**

Hörmann's range of special frames also enables flush door and wall transitions.

View of frame (2)



Many frame profiles are available with an edge recess that can be plastered flush with the wall. Both corner frames and single or double-shell frames come with an edge recess and in many different versions, such as with a double rebate or decorative rebate, radii or a hardwood borders. A frame without a frame face is a particularly unique product that is ideal for fitting in partition walls. Even if they are not fitted flush, sliding doors integrated in partition walls are an elegant solution, as more space is freed up in comparison with a hinged door. Hörmann also has numerous frames for sliding doors that can be ordered along with the door leaf.

## 4. INTEGRATED **COLLECTIVE GARAGE** DOOR

Hörmann's ET 500 is the ideal solution for collective garages: This reliable and robust up-and-over door is mainly characterised by exceptionally smooth running. Its versatile design flexibility is yet another advantage. This elegant steel frame construction comes with a standard infill (perforated steel sheet), but can also be clad with, for example, timber. This enables plane integration of a door that matches the surrounding facade.

## 5. FLUSH GLAZING FOR AN EXCLUSIVE **APPEARANCE**

All of the new ALR Vitraplan doors come with flush glazing that conceals the profile frame.

Integrated collective garage door (4)

There are no disruptive lines to spoil the overall appearance, making this exclusive flush door the right choice



Flush glazing (5)

for modern industrial buildings and prestigious construction projects. Brown or grey glazing is available. The frame profile substructure comes in a similar tone that blends with the colour of the glass.



## ARCHITECTURE AND ART RALPH FLECK: CITYSCAPES

Whether painting a bulb of garlic, a mountain range or a bookshelf, the most important thing for Fleck is not the subject, but a sensual impulse to get started. Everything else is done in service of the final painting and not the actual item painted. The limits between abstract and figurative landscapes have been long blurred - what is more interesting in terms of painting is how abstractly you can apply the colours, while still producing something realistic? And how far can you "re-formulate" a representational scene without losing its essence? Fleck himself describes it as orderly disorder. This may appear to be a paradox: Fleck's penchant for series is, however, only coincidentally tied to content, in other words it is not a part of a culture of remembrance. The viewer may adore one of his Amsterdam paintings, but it actually makes no difference if the Dutch city of canals or Paris has been brushed onto the canvas. The painter also doesn't feel the need to work outdoors in sight of his original subject; Fleck prefers to work from photographs or even postcards.

No, his (almost photo-realistic) alpine scenes, fields and corridors, figures, landscapes, seas, city views, and still life pictures are more similar to the hardcore geometry of Mondrian or Stankowski, whose serial art states that the pure, tangible variations of shape and colour offer endless possibilities.

Dr. Baumann, Günter: Das Faszinosum der Wiederholung (Enthralling Repetition), published in: art info magazine, September/October 2007

Landscape 7/II, 2008, 200 x 300 cm (top) Av. Donostiarra, 2002, 200 x 200 cm (bottom) Stadium 24/VII, 2004, 200 x 300 cm (right)



#### RALPH FLECK

Born in 1951 in Freiburg, Germany

1973 — 78	Studied at the State Academy of Visual Arts in Karlsruhe	1984	Travelling exhibition BDI Singapore/ Tokyo	1
	(Freiburg campus) Master student of Poter Drober	1999	"Gärten und Parks – in der Malerei	1 C
1984 — 85	Scholarship to the Villa Massimo		von Renoir bis neute , Galerie Schloss Mochenthal	
	in Rome	2004	"Europe in Art", travelling exhibition of	
Since 2003	Professor of Painting at the		the HVB Group, Kunsthaus, Hamburg	
	Academy for Visual Arts in	2005	"London and Its Painters", Purdy/Hicks	
	Nuremberg		Gallery, London	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		2007	Galerie Baumgarten, Freiburg	
Exhibitions (selection):		2008	"Comme des bêtes/Ours, chat,	
1977	Art prize "Junger Westen",		cochon & Cie", Musée cantonal des	
	Recklinghausen		Beaux-Arts, Lausanne	
1983	"25 junge deutsche Maler",			
	Ljubljana/Lisbon/Porto			







## **PREVIEW / IMPRINT**

# Topic of the next issue of PORTAL: **Schools**

School construction is booming, despite a continued drop in the birth rate. The conversion of many schools into allday schools demands a reorganisation of existing facilities that is often combined with building extensions. In contrast, new school buildings can be planned right from the start using the latest trends in education policy and architectural concepts. In the next issue, PORTAL will present examples of schools that even pupils will enjoy, similar to the impressive drawing below.

Twelve-year-old Robert Isaak, a pupil with severe autism, drew an almost-exact picture of an existing school.



## HÖRMANN IN DIALOGUE

## Building with Hörmann -Your project in PORTAL

At four-monthly intervals, PORTAL reports about current architecture and the framework conditions under which it evolves. And if you so wish, PORTAL could soon serve as the showcase for one of your own projects! Send us information on the buildings you have been involved with using Hörmann products – as a short documentation with plans and photos, maximum A3 scale, to be posted or e-mailed to:

Hörmann KG Verkaufsgesellschaft, z. Hd. Alexander Rosenhäger, Upheider Weg 94–98, D–33803 Steinhagen a.rosenhaeger.vkg@hoermann.de



In the article about the Rheinau Docks area in Cologne that appeared in PORTAL 16/2009 on page 16, Mr Alfons Linster (Linster-Architekten+Generalplaner) was inadvertently not mentioned in the text as one of the co-creators of the workshop draft of the crane buildings.

We apologise for this mistake.

Hörmann KG Verkaufsgesellschaft Postfach 1261

PUBLISHING HOUSE





Gründerzentrum Pramtal Süd, Raab

## A Shining Example of Versatility: Hörmann Industrial Doors



Practice-oriented and safe: wicket doors with trip-free threshold

Hörmann offers the largest range of industrial doors and operators throughout Europe. Our selection contains all important construction styles in a variety of versions and with different glazings.

New: the fully glazed ASR sectional door with completely new frame construction, profiles that are only 65 mm thick, invisible section seams; also available with a bottom section (ASP).

