

HÖRMANN

PORTAL 19

INFORMATION FOR ARCHITECTS
FROM HÖRMANN



Open to the future – 75 years of Hörmann

Projects by Behnisch Architekten; 03 Architekten; Schmidhuber + Kaindl

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Thomas J. Hörmann and his two sons Martin J. Hörmann and Christoph Hörmann are interviewed by PORTAL on the occasion of the company's 75th anniversary

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UNILEVERHAUS IN HAMBURG

In the future, buildings will also be increasingly tested for their environmental sustainability and conservation of resources. The new corporate headquarters of Unilever Germany is a pioneering example in this regard.

Design: Behnisch Architekten

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BUILDING MATERIALS SUPPLIER IN MUNICH

With limited materials and the ploy of overcoming the lack of storage space on an urban plot with a vertical structure, the architects succeeded in keeping a long-established company at its present location.

Design: G3 Architekten

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GERMAN EXPO PAVILION 2010 IN SHANGHAI

"Better City, Better Life" is the theme of this year's World Expo, which the architects skillfully translated into the architecture of the German pavilion.

Design: Schmidhuber + Kaindl

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PLACES OF YEARNING

Visions and hubris in the history of construction since 1935

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Christoph Hörmann, Martin J. Hörmann and Thomas J. Hörmann
Personally liable general partners

Dear Readers,

As if planned for this issue. Hörmann celebrates its 75th anniversary, while the World Expo opened its doors in Shanghai on 1 May. As you read this, you are probably asking yourself what these two facts have in common. Hörmann is an official sponsor of the German pavilion at the Expo 2010, whose title “balancity” is a focus on the future. Building for the future, on the other hand, is the focus of this anniversary issue, which has a different appearance to previous issues. The front and back covers immediately stand out through their distinctive images. Instead of showing, as usual, architecture published in that issue, it features the diptych of the shell of a building, photographed by the South Tyrolean Walter Niedermayr. The anniversary year is a good occasion for us, for once, to be interviewed by PORTAL. Us means the three personally-liable general partners, Thomas J. Hörmann as senior partner, with his two sons Martin J. Hörmann and Christoph Hörmann. The interview is accompanied by photographs by the Stuttgart photographer and architect Wolfram Janzer, who is fascinated by the interplay of light and shadow on coloured doors. In addition to the programmatic contents and the architecture of the Expo pavilion, the German headquarters of Unilever, with its progressive approach, is setting new standards in the awareness of ecologically-sound construction.

The building in the emerging HafenCity district of Hamburg not only saves energy through a special construction method, but also incorporates environmental protection in the choice of materials. A different savings approach was adopted, however, by Kraft, a building materials supplier in the centre of Munich. Here, the focus is on the scarce land resources. With low material costs, 03 Architekten developed a perfectly-organised building materials supplier on a small plot of land. This was achieved by stacking the storage areas on top of each other. The success of Hörmann is also not least based on such strong partners in the market.

Since contemplating the future is not an invention of the 21st century, author Dr. Susanne Liehr dares to take a look back in history, beginning with 1935, the year Hörmann was founded, through to the present. What was then conceived and devised may still seem utopian today, but thanks to advances in technology some projects have in the meantime become feasible, as shown by the most recent example in the desert city of Dubai. The 828-metre office and residential tower, Burj Khalifa, is ultimately no longer appropriate in this era of increasing energy shortages. Let us surprise you and perhaps even inspire you a little with this slightly different issue. We hope you enjoy the articles,

Martin J. Hörmann

Thomas J. Hörmann

Christoph Hörmann

PORTAL INTERVIEW WITH THOMAS J. HÖRMANN, MARTIN J. HÖRMANN AND CHRISTOPH HÖRMANN

A 75th company anniversary is usually accompanied by a historical review that documents the successes of a company. Instead of a chronology, the three personally-liable general partners, Thomas J. Hörmann and his two sons Martin J. Hörmann and Christoph Hörmann, decided to answer questions put by PORTAL.

PORTAL: For thousands of years, people have used doors primarily to protect themselves, but also to separate or connect rooms. What do you believe the first door-like construct look like?

MARTIN J. HÖRMANN: I suspect prehistoric people rolled a rock in front of their caves to protect themselves from unwelcome visitors in the dark, or they disguised the entrance with branches so as not to be discovered.

PORTAL: When does a door even deserve to bear that name? What are the prerequisites for it?

THOMAS J. HÖRMANN: You're likely to get many different answers to that question. To me, a door is defined by a door leaf, which is firmly fixed to the building structure by two hinges and which can be opened and closed as often as required.

PORTAL: Where and when do you believe a door like the one you have just described appeared for the first time?

THOMAS J. HÖRMANN: I'm sure that the Greeks equipped the hatches in the stomach of the Trojan Horse with some form of hinge, or else their strategy would have failed. As far as I'm aware, the ancient Egyptians already had wooden and stone doors that were turned on a lateral axis.

PORTAL: Your family-owned company has been in existence for 75 years. What did the doors manufactured by your father and grandfather look like?

CHRISTOPH HÖRMANN: Basically very similar to the ones we manufacture today. They were also steel doors which were no less attractive than our current products. However, there is a great difference in the manufacturing process. Back then we used twice as much material. We didn't have the technical expertise in the manufacturing process to minimise material use. That has changed substantially in the meantime, and today we use considerably fewer resources.

PORTAL: The company was founded in a politically unstable period. What strategies did the young company adopt to survive the war years?

MARTIN J. HÖRMANN: Flexibility. In addition to doors, we produced a wide variety of products in a range of different materials — practically anything at the time that was scarce and that people needed for everyday life. Even though we were primarily a steel manufacturing company, legend has it that we even produced clogs and hand carts, which, as it turned out, didn't become best sellers. That wasn't what it was all about anyway. The motto was: roll up your sleeves and get as much done as possible.

PORTAL: Many homes were destroyed after the war and had to be rebuilt. There was a boom in residential construction. With which products were you able to compete in the market?



CHRISTOPH HÖRMANN: Then it was more of a seller's market. Doors for residential construction were mass products that were produced in standard sizes. Something which worked very well in Germany right from the start. Most suppliers manufactured doors that didn't differ greatly from each other. The demand was so great that doors were more often than not distributed rather than sold. All that was required of a manufacturer was to produce sufficient quantities and to acquire sufficient materials, which was not always easy in the beginning.

PORTAL: After the war, the United States was in many ways a major role model for Germans. Did you also benefit from this?

THOMAS J. HÖRMANN: In the mid-fifties, as very young man of barely 18, I spent a year in the United States working at a garage door factory. At that time, the Americans were far ahead of us in terms of production technology, while we were characterised more by engineering technology. I returned with expertise that wasn't yet commonly known in Germany at the time.

PORTAL: Increasing prosperity certainly also led to growing expectations of doors. How did your company respond to that?





MARTIN J. HÖRMANN: After supply and demand more or less balanced out, a key concern in the 1960s and 1970s was to establish a well-functioning sales structure. In the meantime we evolved from a major manufacturer to an individual custom door supplier, a market position that we continue to dominate without totally relinquishing high-volume production.

PORTAL: Door systems are subject to many standardisation requirements today. When were the first directives introduced?

CHRISTOPH HÖRMANN: The first DIN standards appeared in the early 20th century as certified recommendations from the fields of science and technology. We were first confronted with these regulations in the 1960s, with the introduction of the first fire rated door according to DIN 18082. For a long time, this was the only fire rated door that was ever approved in Germany. Everyone made this door, from industrial manufacturers to small locksmiths, until new manufacturing techniques enabled the development of proprietary solutions which were more cost-effective, yet fulfilled all applicable regulations.

PORTAL: Technology has been advancing rapidly in the recent past. How do you benefit from this as door manufacturers?

MARTIN J. HÖRMANN: In the past few years in particular, the manufacturing processes for steel doors have evolved in such a way that nowadays even the smallest series can be produced economically. The adhesion technique is gaining in importance for us as a connection method, offering several advantages in the production process compared to the earlier welding method. Of course, the developmental leaps in our sector are smaller and less conspicuous than those of the media technology sector, for example.

PORTAL: You pass through doors several times each day. Do you always notice every detail or do you perhaps even gain ideas for improvements?

THOMAS J. HÖRMANN: We're always in search of improvements. When we're travelling, we sketch possible designs and detailed solutions on a large number of beer mats and paper napkins. If we pass by doors, we always take note of who made them. Since company logos, including our own, are usually placed vertically in the door or frame rebate, we're forced to always hold our heads slightly tilted. This can look rather funny at times.

PORTAL: Do you occasionally slam doors, for example when you are upset, or is it impossible nowadays for a technically-optimised door to even shut noisily?



CHRISTOPH HÖRMANN: We certainly do. If you've got four children, or three like my brother, then slamming doors is unavoidable. So far we haven't yet invented a door that can be handled noiselessly by a wild gang of little rascals.

PORTAL: Hardly any other construction component is mentioned in literature as much as the door. In mystery novels in particular, they play a key role, providing tension-filled moments. Do you read mystery novels?

THOMAS J. HÖRMANN: No I don't, but maybe I should start doing so. I can well imagine the function of a door as the boundary between two worlds — usually the good and the bad in mystery novels.

PORTAL: Doors have a long cultural history, and accordingly, there are many different and also beautiful doors. Do you ever feel the urge to start a collection of your products, perhaps to establish a museum sometime in the distant future?

MARTIN J. HÖRMANN: We don't want to collect doors, but sell them. However, we are art lovers. After the German reunification, I spent about three years in Leipzig to supervise the establishment of our factory there. During this time, I was heavily involved in the Leipzig art world, where I met painters and gallery owners who are now famous well-beyond Germany.

PORTAL: You have travelled extensively in your life and seen a great deal. Is there a particular building in the world that you admire?

THOMAS J. HÖRMANN: Yes, the sandcastles that my grandchildren build every year on the beach of the North Sea island of Juist. I now have nine grandchildren and of course I hope that at least one of them will continue the family tradition.

The series of photographs by Wolfram Janzer was created in 2009/10 at the Institut für Sportwissenschaften (Institute of Sports Sciences) of the university of Stuttgart in Vaihingen. The concept for the colour of the doors was developed by the artist Harald F. Müller.



Unileverhaus in Hamburg

Office buildings for the future express themselves not only through spectacular designs. Nowadays, the future means above all environmental sustainability — which in the construction industry can still not be taken for granted. In Hamburg, the new company headquarters for Unilever in Germany was recently awarded for its holistic approach to handling resources.

Working in this building is a great privilege, not only because of its location, being right on the banks of the Elbe river but the plot is also considered to be one of the most prestigious in the HafenCity district, while the office building constructed on it is among one of the most modern buildings in the world. Cubical and open-plan offices are things of the past. Nobody works silently and alone in this building. The brand world of Unilever (Bertolli, Dove, Knorr, etc.) relies on continuous exchange and interaction. The architecture created by the Behnisch practice of Stuttgart caters impressively for this. The building is not dominated by long and weary office corridors, but rather by a large four-storey atrium with all-round passageways and connecting bridges. Everywhere, comfortable seating arrangements in various styles (as part of the concept), rustic wooden meeting tables and delicate bar stools encourage spontaneous meetings, quiet withdrawal, or simply the enjoyment of a cup of coffee. The amount of time spent at the desk is thus reduced to a few hours per day. Which is why no one is bothered by the fact that the workplaces are closer together than normal. The constant movement matches with the public market area on the ground floor. One requirement of the city of Hamburg was to provide public access to buildings in such a prominent location. The passage through the Unilever Haus ends directly at the seating steps near the water and is also open outside office hours. The transparency inside matches the outside cover. The irregular geometry of the building is based on a simple steel skeleton structure consisting of three floors of offices with a reinforcing stairway and lift core in each, surrounding the central atrium. The facade placed around

the front of the building consists of single frames covered by a single-layer film made of ETFE foil, resembling wind-filled sails. It protects the daylight-optimised blinds from strong winds and other adverse effects of the weather. Unlike a double facade made of glass, this design does not require horizontal partitioning on fire safety grounds. Fresh air which flows through the gap can be used for ventilation through the windows. The more common double-layer pillows were not used in this project to prevent the spectacular view from being overly restricted. As ETFE foil does not contain softening agents, experts assume life span of 25 to 30 years, which is unusually long for a synthetic material. The Unilever Haus not only distinguishes itself by being communication friendly, it also follows the principles of holistic, sustainable architecture. The focus of all design considerations was not only using low-impact technologies, but also the avoidance of technical solutions. Which is why it was one of the first buildings to receive a gold HafenCity Ecolabel. This independent instrument of urban development in Hamburg was established in 2007 and plays a pioneering role in Germany. While most evaluation systems focus on energy savings, the Ecolabel aims to achieve sustainable overall development. In addition to energy consumption, the use of environmentally-friendly construction materials, inexpensive building operations and special attention to the needs of users, it also rewards the responsibility of investors and building owners towards public space. The Unilever company headquarters fulfils all of these criteria in an exemplary way, making it a groundbreaking building for the future.



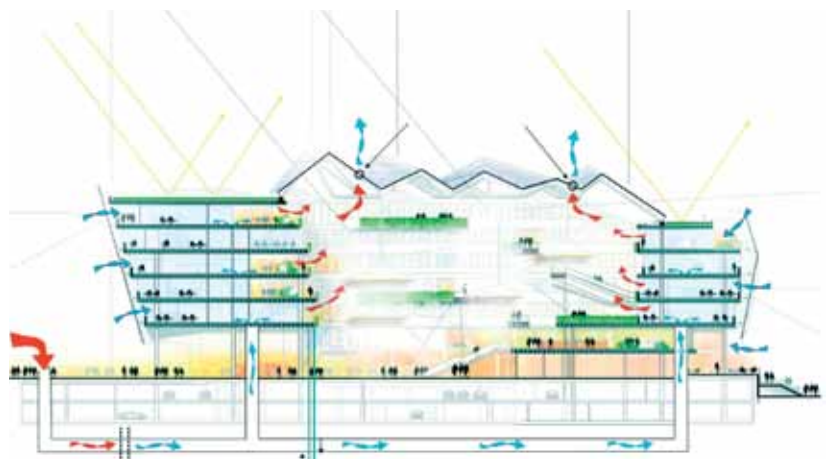
The building is perched on the edge of the harbour (above).
Layout of the ground floor level with the public atrium (bottom left)
and layout of level 3 (bottom right).



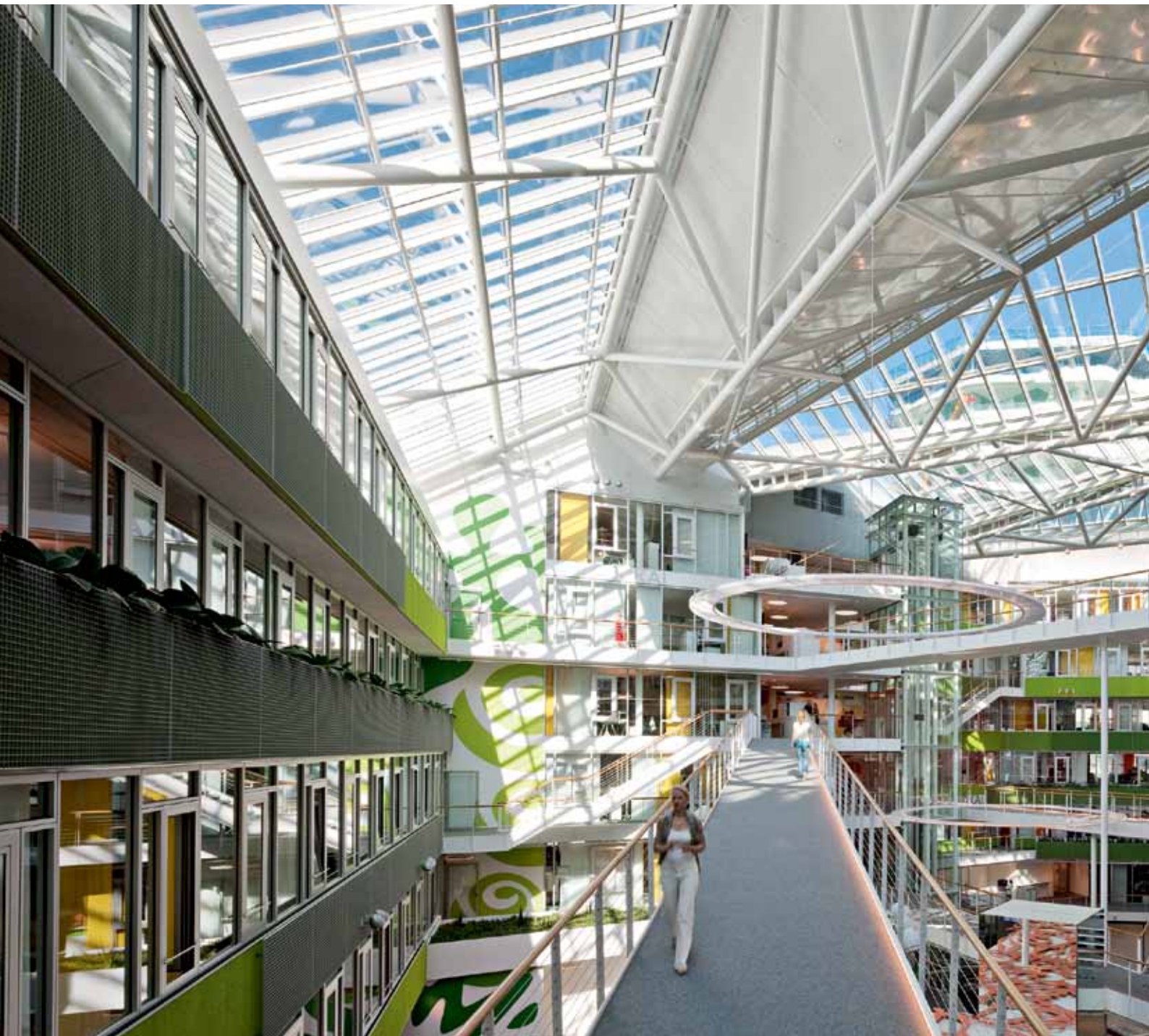
A membrane of transparent ETFE foil surrounds the office building which is shaped like a ship (top left).

Detail section of the single-layer foil membrane construction (top right).

Building cross-section with the air conditioning concept (bottom).



Resulting from the three building segments, the atrium is used as a public market area at all levels.



Reception area for the office building one level above the public atrium (top left).

Team meetings, a short informal exchange, or talks among colleagues take place "outside" (top right).

A colour scheme lightens up the office areas (bottom left).

Coloured partition walls are also used to present the products (bottom right).

OWNER

Standkai 1 Projekt GmbH
c/o Hochtief Projektentwicklung

USER

Unilever Deutschland GmbH

DESIGN

Behnisch Architekten, Stuttgart,
Germany
Stefan Behnisch, David Cook,
Martin Haas

SUPPORT STRUCTURE PLANNING

Weber Boll, Ingenieure für
Bauwesen, Hamburg, Germany

LOCATION

Hamburg, HafenCity, Germany

PHOTOS

Adam Mørk, Copenhagen, Denmark
baubild / Stephan Falk, Berlin,
Germany

HÖRMANN PRODUCTS

Single and double leaf T30 steel fire
rated doors tubular frame HE 310,
HE 32

Single and double leaf T30 fire rated
doors steel sheet H3 single-leaf
steel smoke-tight doors aluminium
A/RS-15

Single leaf acoustic-rated door D5



Kraft building materials supplier in Munich

Using simple materials and a clear basic structure, the young Munich-based team of 03 Architekten was able to provide a large business in the city with a new identity. Located on an extremely busy street, the plot is marked by an all-round semi-transparent wall that catches the attention of every driver passing by.

For many years industrial and commercial construction was not a very popular area of architecture, until the first building owners discovered the benefits of an attractive design for their companies in the early 1990s. It was mainly young architects who experimented with suitable facade materials such as corrugated aluminium or, later on, translucent double-moulded units. Proportions, deliberately-placed openings, and professional lighting design suddenly provided an identity for the previously somewhat faceless steel hangars. Success was quick to follow, as these buildings stood out from conventional commercial buildings. Much was said and written about them. Over the past few months, the building materials supplier Kraft in Munich was also able to find out that this approach still leads to the desired results 15 years later. Located since 1959 on today's Drygalski Allee, the family-owned business commissioned the young team at 03 Architekten to conceive a development plan for their 12,000 square metre premises. These were in need of extensive restructuring due to the growth of the company and associated changes in operational processes. In addition to the renovation of the existing building, the plan included the construction of an underground garage and a new building for sales and training which also had to provide space for frost-sensitive goods. Furthermore, the company was in need of large-scale weather-protected and open storage areas, and finally, well-functioning access to all areas had to be provided. While the plot was generously proportioned for an urban setting, the planners nevertheless had to stack the storage space vertically.

With the help of high-performance forklifts, large-sized construction materials such as door frames, rock trusses, tubes, insulation materials and roof battens, can be easily removed from and placed on shelves, even if they are ten metres high. The vertical positioning coupled with a separate entrance and exit ensure short and effective paths. Small items such as tools, ironmongery, and work clothes are offered for sale in the old building on a self-service basis. Unplastered concrete surfaces next to white plastered walls and ceilings as well as polished unplastered concrete floors characterise the retail areas. The colourful goods on sale provide sufficient colour in this setting. The main priorities for the logistics are functionality and robustness. While these cannot be expressed through special design features, they can be by the surrounding trappings. The facades facing the courtyard are covered in aluminium rib mesh, while the entire premises are framed by a 12-metre-high enclosure made of semi-transparent polycarbonate sheets that serve at the same time as the back walls for the storage areas located outside. Motorists on the Drygalski Allee are astonished when passing by the 140-metre long wall, whose structure constantly changes depending on the time of day, weather and contents of the high shelves. The fact that architects were involved is also apparent from the accompanying planting of sculptural oak trees on the neatly-trimmed grass lawns. Although commercial buildings are not considered to be prestigious, they are nevertheless also entitled to high-quality architecture. The Munich-based team of architects achieved this in an attractive and convincing way.



A 140-metre long translucent wall made of polycarbonate panels with oaks planted accurately in front of it attracts the attention of passers-by to the building materials supplier.



The buildings on the premises were covered in aluminium rib mesh (top).
The main entrance leads to a yard which is framed on the left by the existing building and on the right by the new buildings (bottom).



The narrow boundaries of the city-centre plot force goods that are unaffected by the weather to be stored vertically.



OWNER
Kraft Baustoffe, Munich

DESIGN
03 Architekten, Munich

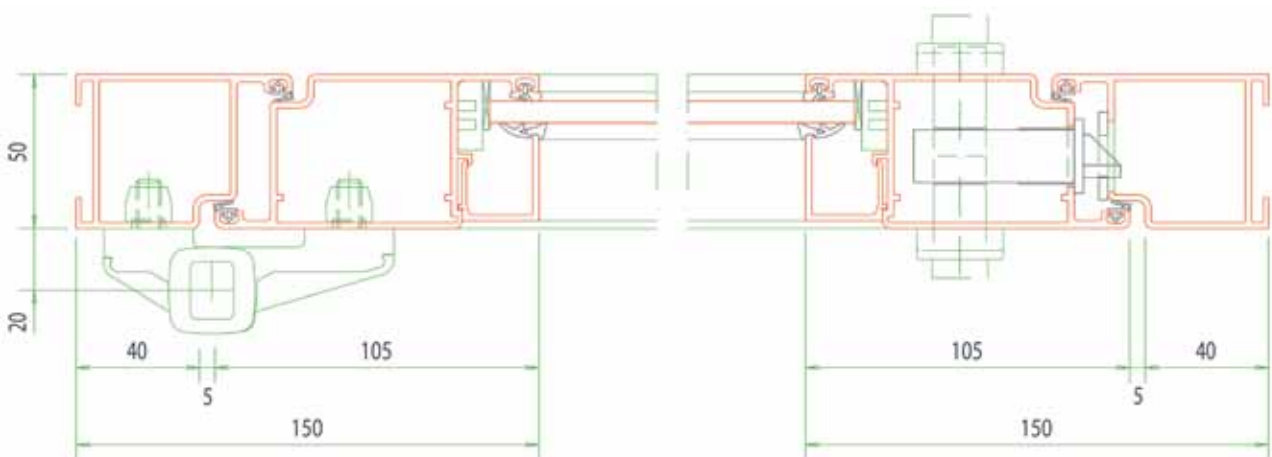
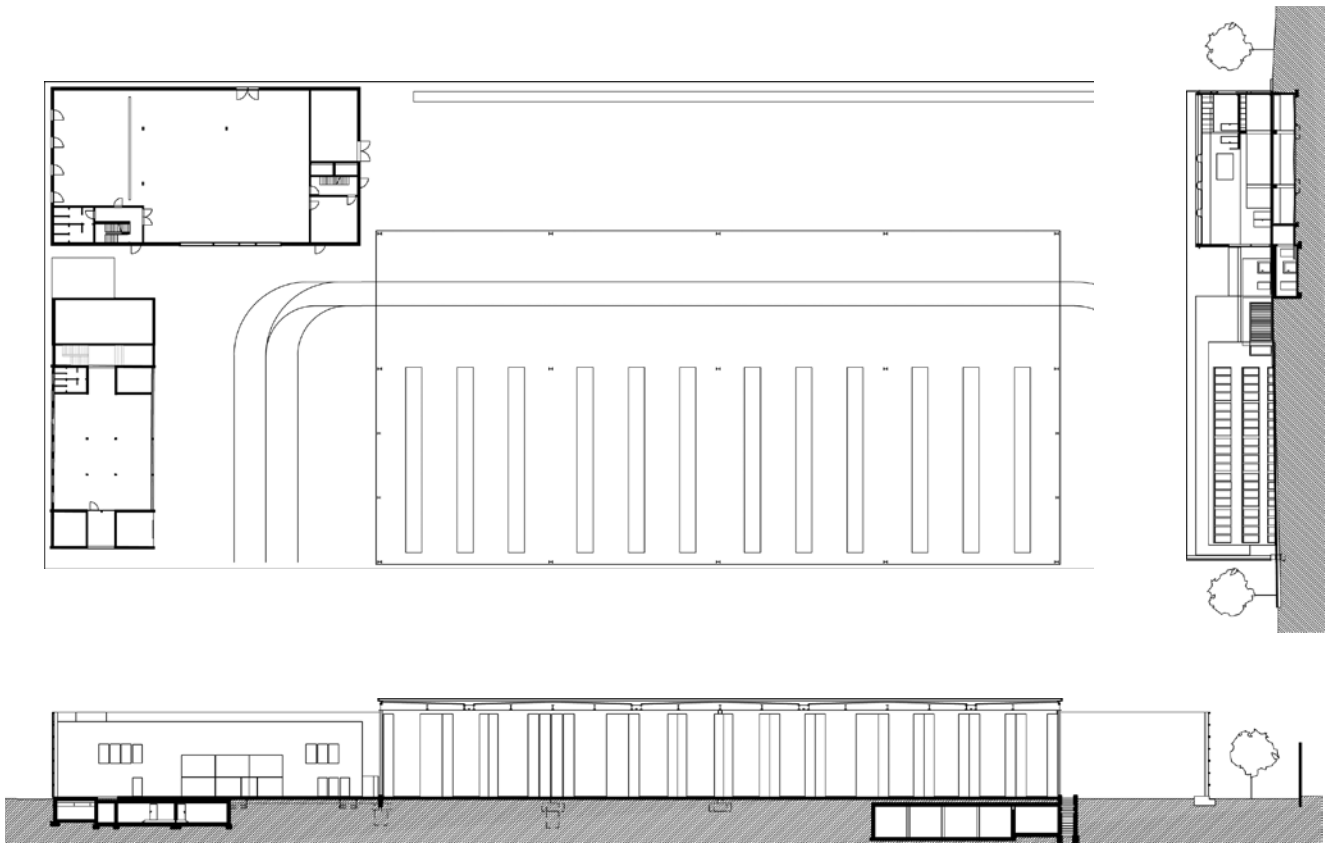
SUPPORT STRUCTURE PLANNING
Lieb Obermüller & Partner, Munich

LOCATION
Drygalskiallee 15, Munich-Sendling

PHOTOS
Florian Holzherr, Munich

HÖRMANN PRODUCTS
Single leaf steel smoke-tight door
aluminium A/RS-15

Layout and cross-sections (top)
Door detail aluminium smoke-tight door assembly (bottom)



German Expo Pavilion 2010 in Shanghai



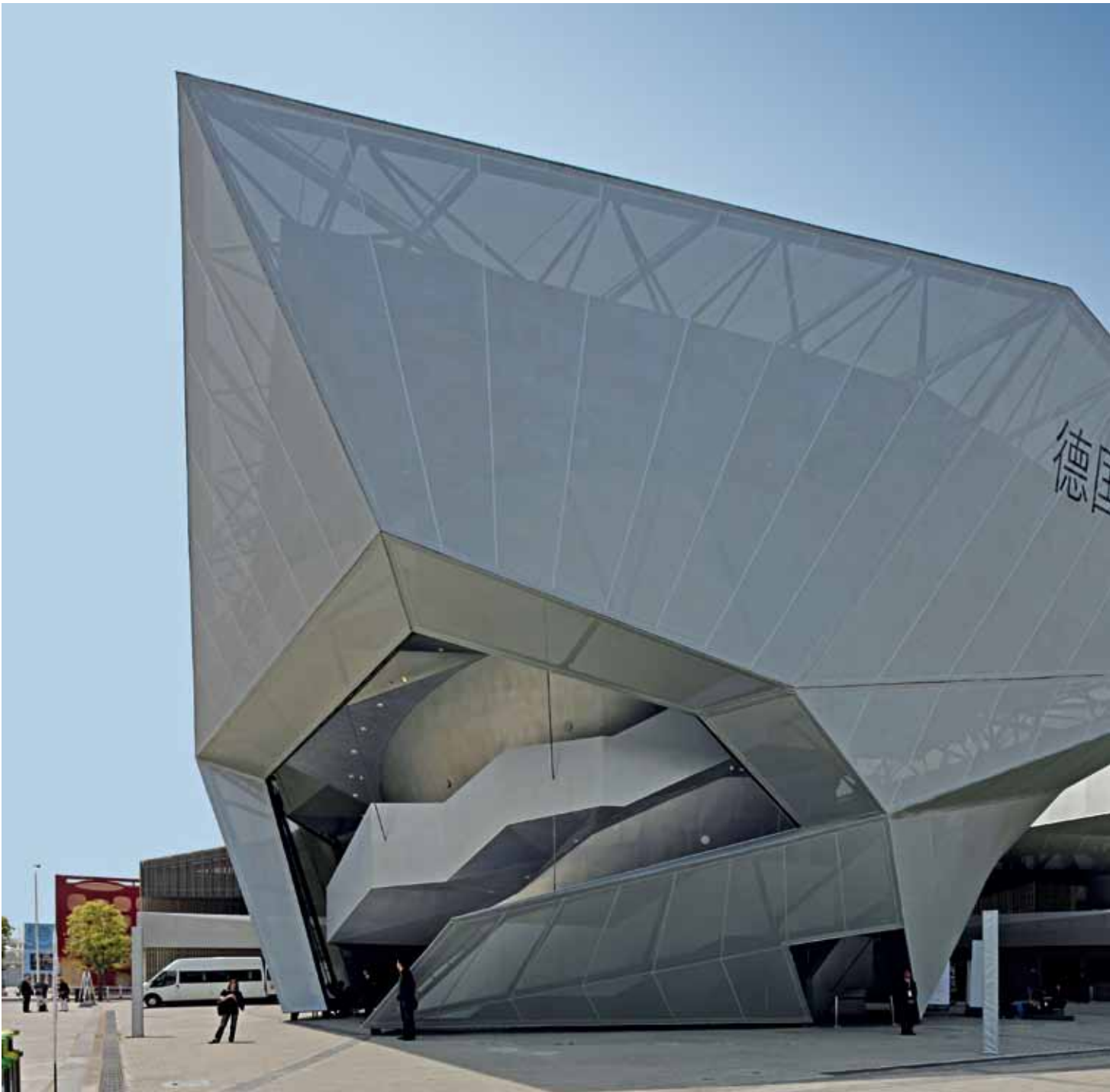
This year's World Expo in Shanghai should be the largest ever. Germany will once again be there with a pavilion planned by the Munich-based architects Schmidhuber + Kaindl and the exhibition designers Milla und Partner of Stuttgart. The pavilion not only successfully addresses the Expo theme of "Better City, Better Life," but also attracts attention through its architecture.

The first World Expo took place in 1851 in Joseph Paxton's Crystal Palace at Hyde Park in London as a trade fair of industrial and arts and crafts exhibits. Because of lack of space, individual country pavilions were introduced at the Paris World Expo in 1867. The thematic focus has also changed in the course of time. The World Expo now focuses on conveying and exchanging information in the areas of technology, research, business, communication, culture and entertainment. With the motto "Better City, Better Life", China, as the host country of the World Expo 2010, is inviting more than 240 nations and organisations as well as people from all over the world to Shanghai. Germany is among those accepting the invitation and will present itself with a pavilion called "balancity". The pavilion, as a structural metaphor, aims to deliver the message that it is worth striving to live in a city as long as it is in balance. A walk-through, three-dimensional sculpture, the German pavilion reflects the diversity of life in the cities and regions of Germany. Four polygonal exhibition structures rise above a three-level terraced landscape with an event area, resulting in a spatial interplay of indoors and outdoors, light and shade, confinement and expanse. Seen from a distance, the landscape resembles a geological layered model with Chinese grass growing on its surface. Wooden slats and semi-transparent thin-film solar cells with silicon as their energy source on the sides of the pavilion, symbolise the individual layers of earth. The exhibition structures themselves are executed as steel constructions and covered with a transparent shiny silver membrane which at night turns into a large canopy

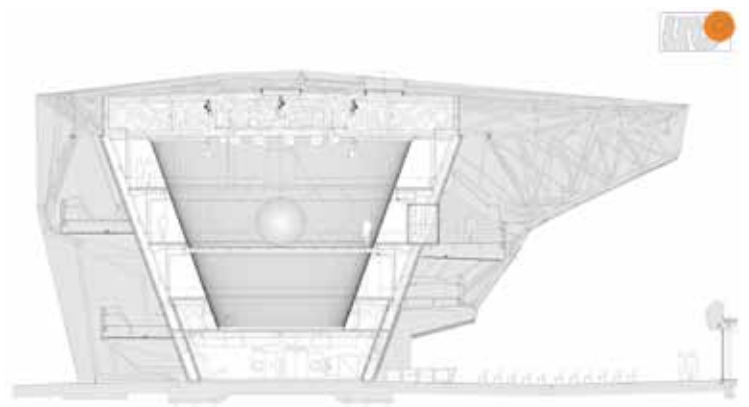
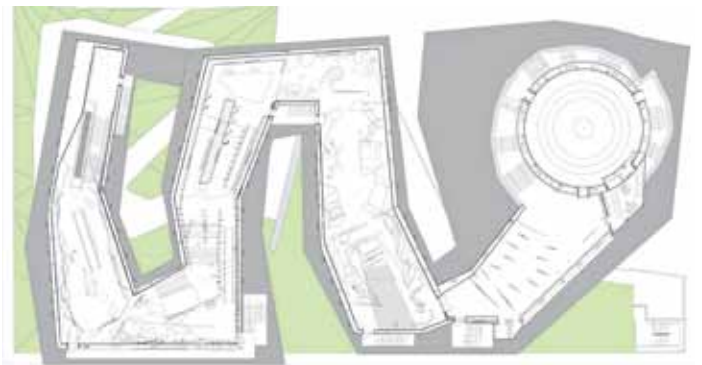
of light. Below the walk-through terraces are the visitors' information office, souvenir shop, restaurant, service area and offices. This is where the "balancity" experience begins — the waiting area winds like a labyrinth past ravines, public squares and courtyards towards the entrance. Oversized postcards of German landscapes and sights serve as photographic backdrops along the way. Visitors finally pass through a tunnel and into the staged urban environments of "balancity" to embark on a journey through the city of ideas. They are accompanied virtually by Yanyan from China and Jens from Germany, who presents his perspective of Germany to the Chinese student. Inside, the journey continues on foot or moving walkways through the single to two-floor urban spaces — starting from the harbour, it proceeds through a planning office to the garden, past the depot and the factory to the park, then to the studio, the city square and the forum until visitors finally arrive at the end of their journey at the city's power plant, the Energy Source. Standing at a height of approximately twelve metres at the heart of the pavilion, visitors become aware of the height they have just climbed. This height is certainly required for the next attraction — from a gallery, the visitors see a three-metre-high sphere whose surface is covered with thousands of LEDs. Images, colours and shapes appear on it, symbolising Germany's ideas related to the Expo theme. The movement and shouts of the visitors set the sphere in motion. The more fervent the movement of the sphere, the more intense are its colours. At the end of the show, visitors leave the German pavilion with impressive pictures of Germany.



The German Expo pavilion resembles a structural sculpture whose transparent membrane reveals the steel structure underneath.



Layouts of level 1 and 4 (top),
cross-section of the Energy Source (bottom)



The southern facade of the German pavilion is dominated by wooden slats and semi-transparent thin-film solar cells (top). The shelf-like structures in the “Depot” extend all the way up to the ceiling. They are filled with famous inventions, showcasing the variety of German engineering achievements (bottom).



The energy required by a city to function is impressively made visible at the "Energy Source" (top).
 The "Planning Office" features oversized plans, models and sketches (bottom left).
 Passing through a dark blue underwater space with authentic sounds and reflections, visitors use an escalator to reach an impressive forward-looking project: the Hamburg harbour (bottom right).

OWNER
 Bundesministerium für Wirtschaft und Technologie (Federal Ministry of Economics and Technology)

CO-ORDINATOR
 Koelnmesse International GmbH

CONCEPT, PLANNING AND IMPLEMENTATION
 Arbeitsgemeinschaft Deutscher Pavillon Shanghai Gbr (ARGE)

ARCHITECTURE AND OVERALL PLANNING
 Schmidhuber + Kaindl GmbH, Munich

EXHIBITION AND MEDIA DESIGN
 Milla und Partner GmbH, Stuttgart

IMPLEMENTATION AND PROJECT MANAGEMENT
 Nüssli (Germany) GmbH, Roth

LOCATION
 Expo site, Shanghai

PHOTOS
 Andreas Keller, Altdorf
 Ausstellung Milla und Partner / Architektur Schmidhuber + Kaindl

HÖRMANN PRODUCTS
 Single-leaf and double-leaf steel fire protection and multi-function doors



PLACES OF LONGING VISIONS AND HUBRIS IN THE HISTORY OF BUILDING SINCE 1935

The world would not have evolved into what it is today without the architectural visions of daring pioneers. Frequently, architects and building owners who planned for the future had to endure setbacks and intense criticism. While their subsequent success often proved them right, not all buildings that are technically viable also serve the good of humanity. In the case of some ideas, it is a relief that they remained on the drawing board.

Never built and nevertheless present? The image pool of 20th century architectural history includes, in addition to some individual buildings, also urban development projects which continue to be provocative utopias to this day, long after the era of their conception. More than 70 years ago, Albert Speer planned the monumental redesign of Berlin as a future global capital. The "Germania Project" culminated in a colossal, 300-metre-high domed structure intended to serve as the cultic and political centre of the national

socialist Volksgemeinschaft (racial community), at the same time manifesting the megalomania of the Nazi system. The Third Reich vanished together with its totalitarian approach to design in World War II. The passion for demolition and rebuilding, however, remained intact in a different guise. While the modern age's optimism about the future remains undiminished, the unease at the inhospitable nature of cities calls for alternatives. Is there even such a thing as an ideal city? At least on paper it already exists as a concept and

North-south axis by Albert Speer within the scope of the redesign of Berlin, the imperial capital, around 1941



DR. SUSANNE LIEHR

Born 1960 in Freiburg

1983 — 90 Studied Art History, Architectural History and Modern History at the University of Karlsruhe

2000 Doctorate degree

Since 1998 Freelance scientist and author in Berlin.

Various publications about contemporary art and architecture



a place of longing. One of the great pioneers of Utopian architecture is the Hungarian Yona Friedman who lives in Paris. Contrary to the predominant international style of post-war modernism, by the end of the 1950s he had already developed the concept of a “mobile architecture” offering the greatest possible freedom for the people inside it. The spatial city, “La Ville Spatiale”, allows existing cities to densify upwards and to transform into net-like super-structures. On several levels, twelve-metre-high pylons carry a grid of flexible lots that can be designed by the residents themselves based on their individual needs. The Japanese Metabolist Movement of the 1960s also considered flexible individual elements within large structures. Against the background of the population explosion and limited space in urban conglomerations, Kenzo Tange conceived the real-utopian project of extending Tokyo into its bay. A gigantic, dynamically growing bridge city on stilts 50 metres above the ground, planned as a linear urban axis for five million people. Other members of the Metabolist Movement developed futuristic mega-structures for the organically growing “Agricultural City” and the spiral-shaped “Helix City”. Cellular structures

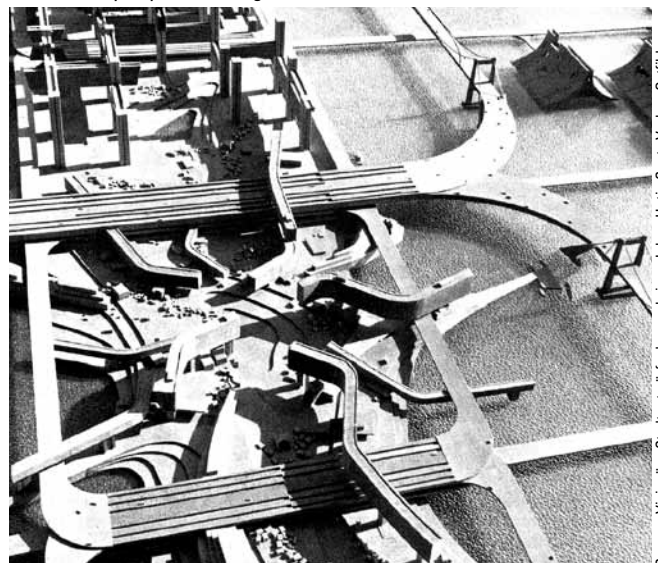
and natural growth processes also gave the direction to American Richard Buckminster Fuller’s structural geometry, which is reflected in his geodesic dome constructions. As a pioneer of ecology, he propagated recycling and the use of renewable energy sources as early as the 1930s. He coined the term “Spaceship Earth” long before the first flight into space. He conceived the solution to all of New York’s climate problems in a gigantic glass dome which would hermetically cover parts of Manhattan and thus protect it from adverse weather as well as radioactive fallout. The designs of the British architect group Archigram bring space travel and rocket launch pads to mind. The technophile architects sought radical alternatives to conventional habitation and rigid urban structures, and dreamt of moving metropolises. In “Walking City”, technical urban structures of colossal size roam freely across every border to settle all over the globe. Moving on telescopic legs, the beetle-like urban nomads create a network on land and water and communicate with each other via extendable tubes. The creative output of the avant-garde architects also includes envelope-like modules that can be pitched like tents, as well as

Design of a geodesic dome over the centre of Manhattan by Richard Buckminster Fuller, 1962

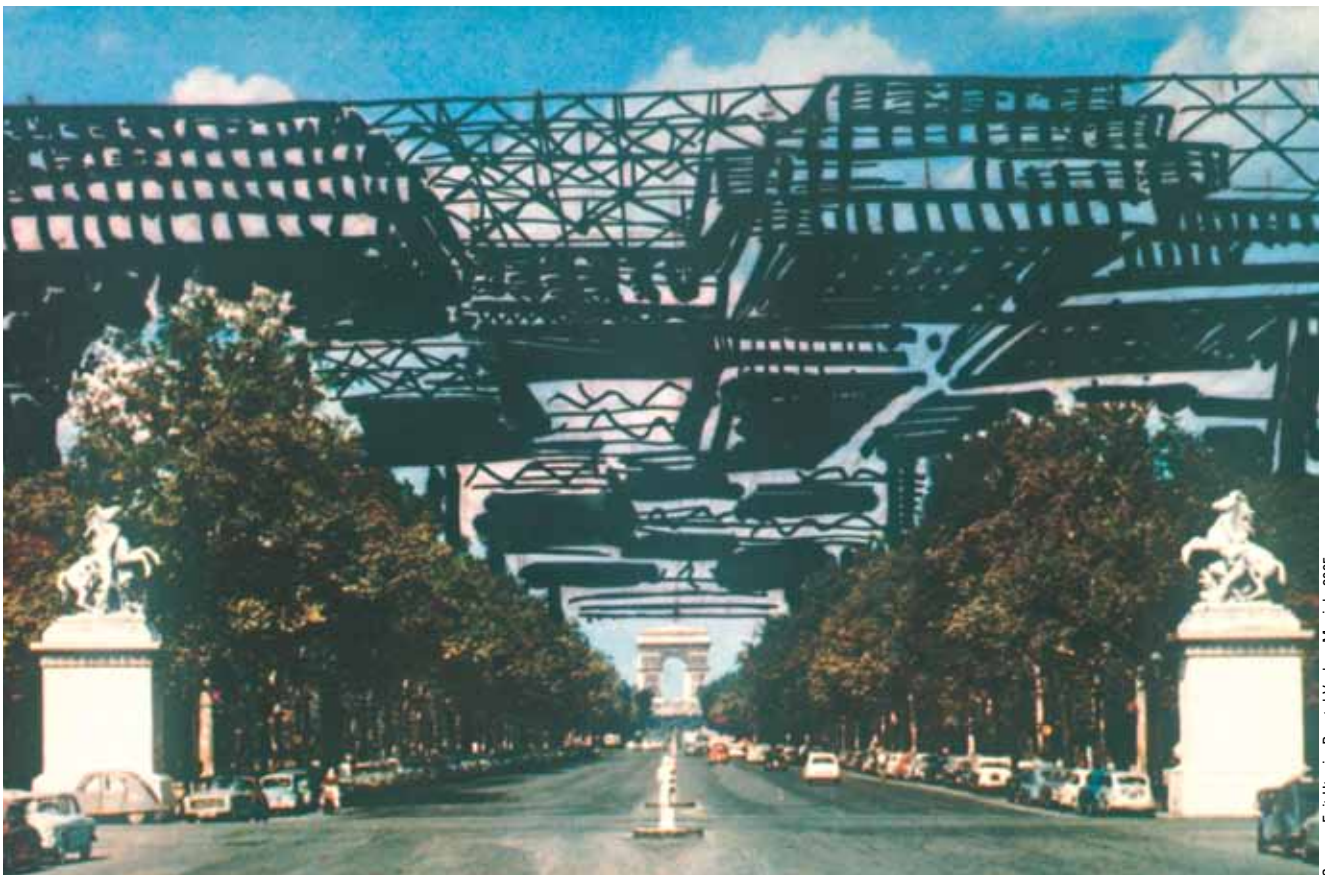


Source: Exit Utopia, Prestel Verlag, München, 2005

Plan for Tokyo by Kenzo Tange, 1960



Source: Visionäre Stadtentwürfe der sechziger Jahre, Hatja Cantz Verlag, Ostfildern, 2008



"La Ville Spatiale" by Yona Friedman, 1960

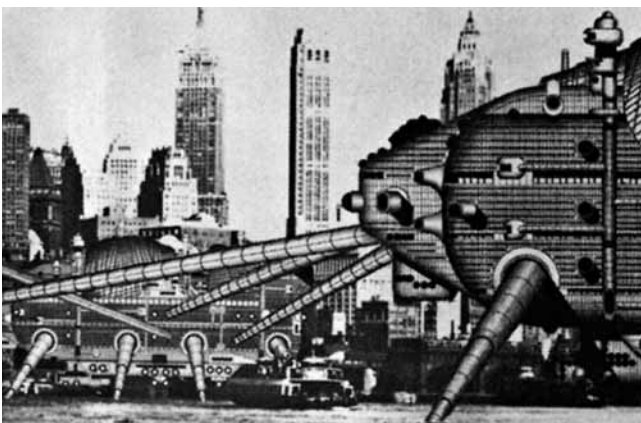
Source: Exit Utopia, Prestel Verlag, Munich, 2005

compatible architectural elements, inflatable surfaces and mobile space capsules in "Plug-in City." Many of these utopian visions continue to influence designers, high-tech architects and artists to this day. Science fiction movies draw on the large repertoire of these concepts to create deceptively realistic future worlds. In the blob architecture of the 21st century, following extensive series of experiments, computer simulations turn into tangible bubbling architectural sculptures that mutate into cellular structures in the virtual space of Biomorphism. Many of those early visions have become technically viable today. Around the world, high-rise buildings constitute multi-functional, complex mega-structures which continuously

and prestigiously grow into the sky. With more than 7,000 high-rise towers, Hong Kong leads the global skyline ranking, far ahead of New York and Chicago. The world's current highest building of 828 metres has been completed in Dubai, a symbol of human hubris and an ecological disaster. A total of 200 50-metre foundation posts anchor the "Burj Khalifah" to the desert ground, while more than 50 lifts provide access to the 162 floors, whose interiors will only be completed once tenants or buyers have been found. Nevertheless, mega-towers more than one kilometre in height are being planned in Saudi Arabia and Kuwait. 54 years ago, Frank Lloyd Wright was already reaching for the stars. In 1956, he conceived for Chicago the "Mile High",

1600 metres high with 56 atomic-powered lifts. While here at home, cities and regions are drastically shrinking, new mega-cities are emerging from the ground in China as if in a time-lapse film. In Shanghai alone, nearly 1000 high rises constitute a futuristic skyline, including the world's third-highest skyscraper with the world's highest observation platform, on which fog and smog dominate much more frequently than good visibility. The metropolis of 20 million residents is the venue of this year's World Expo with the auspicious theme of "Better City, Better Life". Across all architectural styles, part of the profession of an architect is to design spaces and buildings such that will never be built, and it is their artistic privilege to test the limits of our concepts of space on paper or with models. While the radical nature and monumental scale of visionary architecture provoke contradiction, what remains are imaginary buildings, musings and dreams that sharpen our perception of what is actually present.

Burj Khalifa by Skidmore, Owings and Merrill, 2010 (right)
Walking City by Archigram, 1964 (bottom)



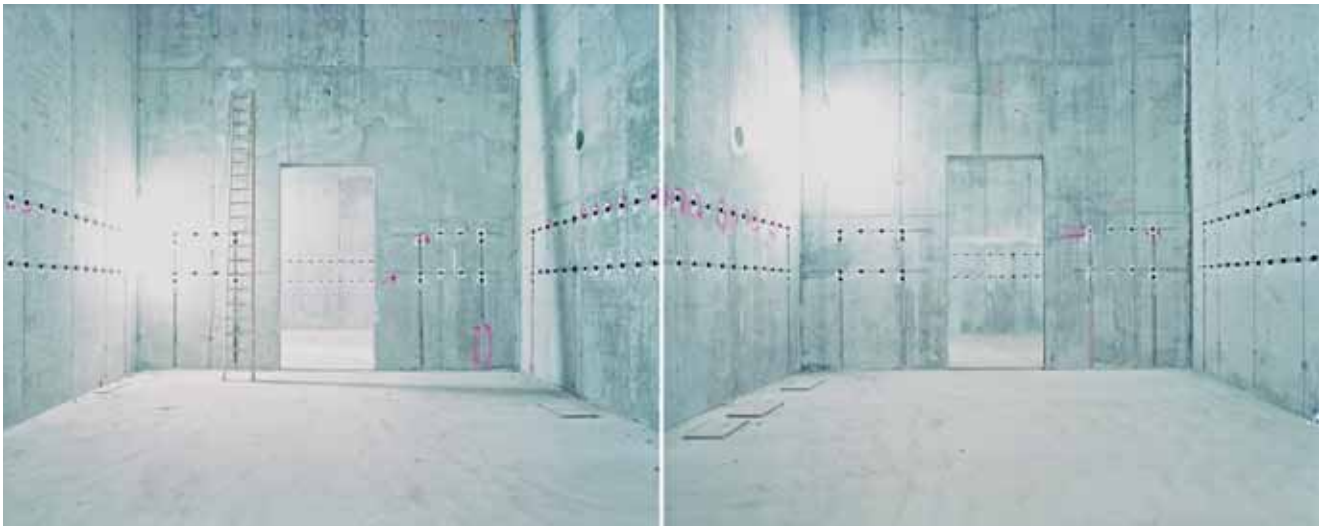
Source: Die Architektur der Moderne, Munich, 2010



Photo: Iwan Baan

ARCHITECTURE AND ART

WALTER NIEDERMAYR



BILDRAUM (IMAGE SPACE) — the relationship between photography and architecture

Image space denotes the image as a two-dimensional surface. The image of real spaces is transferred to the paper surface. In this group of works, I am interested in making space visible through the immanent possibilities of the medium and in a broader sense of spatial atmospheres, conscious that photography cannot replace the aura of the original but may perhaps encourage the appearance something that does justice to the space, that can discover it. Ultimately, experiencing space is a process involving all the senses and it cannot really be replaced by a medium.

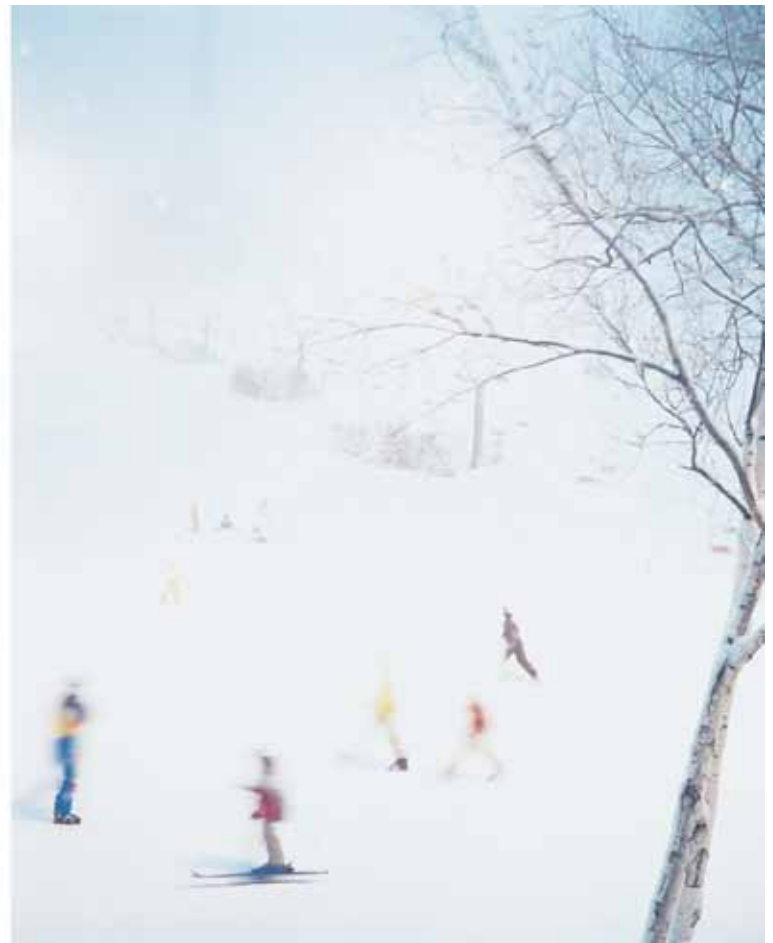
“Bildraum 3/2001”, 2-part, 104 x 265 cm, c-prints (top). “Naeba 1/2002”, 2-part, 131 x 210 cm, c-prints (right)

WALTER NIEDERMAYR

Born 1952 in Bolzano, Italy
Photographer

Since 1985 he has been working on projects that perceive space as a reality occupied and designed by people and that redefine it in its ephemeral realms between imagination and reality. This is expressed in the series of works "Alpine Landschaften" (Alpine Landscapes), "Raumfolgen" (Spatial Sequences), "Rohbauten" (Building Shells), "Artefakte" (Artefacts) and, since 2001 "Bildraum" (Image Space). The latter focuses on architecture that deals with the visualization of space and spatial atmospheres.

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PREVIEW / IMPRINT

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

City-centre living has long since lost the horror of narrow flats, little greenery and poor-quality air. New buildings, renovations and even conversions, all with the declared aim of saving energy, offer a wealth of accommodation that is also suited for families. Even the elderly now feel better taken care of in cities due to the well-developed infrastructure. This results in new forms of cross-generational living. Some very courageous individuals even start over again in their old age and establish joint building ventures with like-minded people. Thus, sustainability is applied in a dual sense in the city.

The best place for uninhibited play is in the garden of a single-family home, but children can also find room to play on urban pavements.



Photo: Hörmann AG

HÖRMANN IN DIALOGUE

Building with Hörmann – Your project in PORTAL

PORTAL reports every quarter about current architecture and the conditions under which it is created. 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 realised using Hörmann products — as concise documentation with plans and detailed photographs, no larger than A3, by post or e-mail to:

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