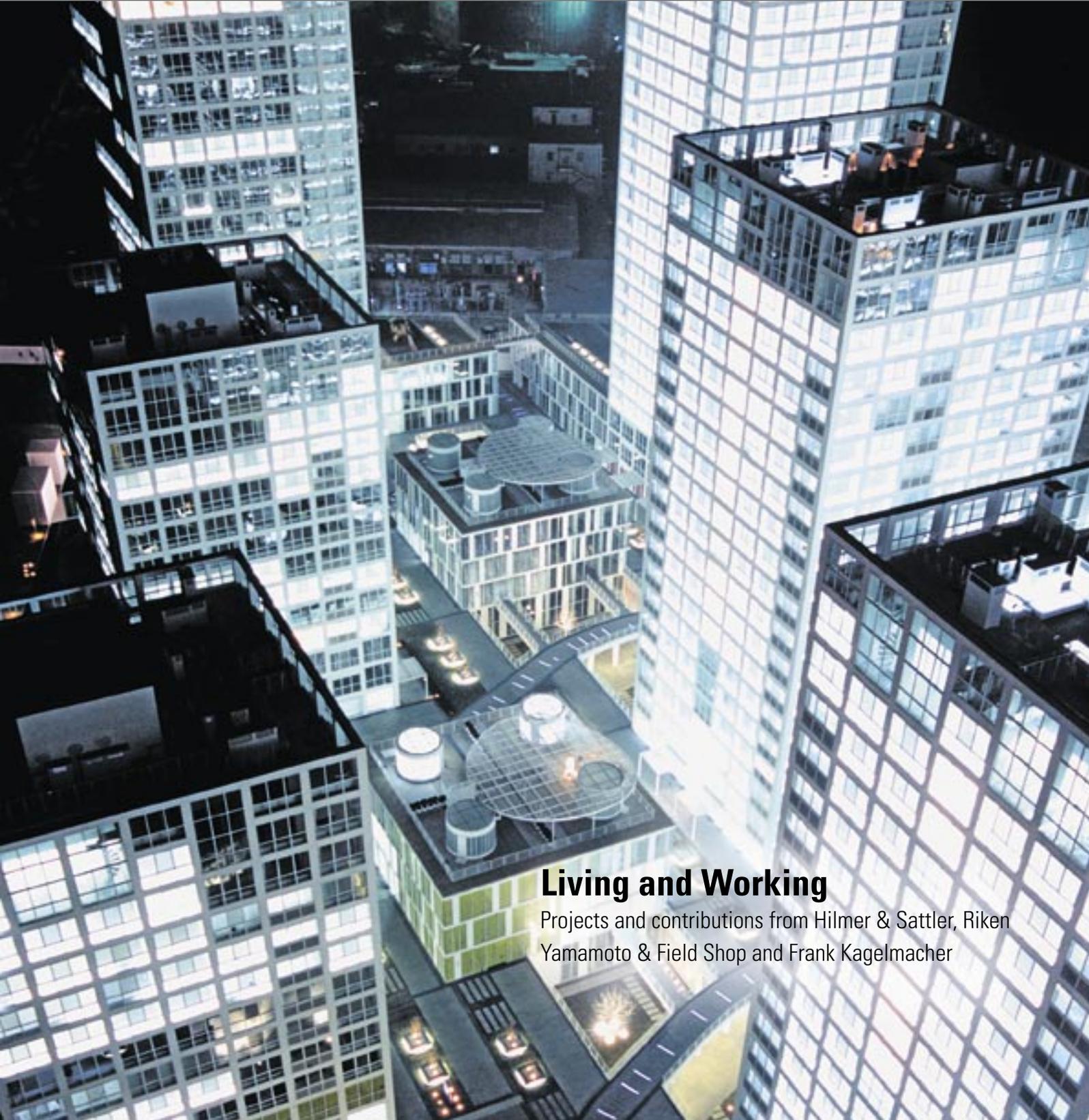


HÖRMANN

PORTAL 02

PORTAL 02
SEPTEMBER 2004

INFORMATION FOR ARCHITECTS
FROM HÖRMANN



Living and Working

Projects and contributions from Hilmer & Sattler, Riken Yamamoto & Field Shop and Frank Kagelmacher

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Martin J. Hörmann, Thomas J. Hörmann and Christoph Hörmann

Ladies and Gentlemen,

Whether in relation to individual projects or cities with over one million inhabitants, the construction industry in China is booming. Such reports appearing daily in the media lure many a German architect into seeking his/her fortune in the former Middle Kingdom. But in all but a few cases, this commitment to China ends in major disappointment: the design is implemented – without the somewhat astonished German architect having been involved. We consulted an on-the-spot expert, Dr. Falk Kagelmacher, working on behalf of the Centre for International Migration and Development/Frankfurt (CIM) as a foreign expert and consultant for the Chinese Academy of Urban Planning and Design (CAUPD) in Beijing. He recommends that any German architects wishing to establish themselves in China should bring their special know-how in the sector of sustainable urban development, intelligent building control and facility management to the fore – because as a high-tech partner Germany's standing in China is still as high as before (p. 4 ff.)

Likewise leading to China and central to this issue's overriding topic – Living and Working – is the documentation on the Jian Wai SOHO Project right in the centre of Bei-

jing, designed by the Japanese architects Riken Yamamoto & Field Shop. SOHO stands for "Single Office Home Office" and takes into account the Chinese trend towards locating the workplace at home and a post-industrial loft lifestyle (p. 18 ff.)

In contrast, chic, internationality and luxury are quite clearly the maxims of the recently opened 5-star Ritz-Carlton Hotel in Berlin, designed by the Hilmer & Sattler and Albrecht firm of architects. The external as well as internal shape of the two building structures – of the 35 metre high hotel block and of a corresponding 72 metre high tower with luxury apartments – is reminiscent of the skyscrapers that dominated the New York, Chicago or Boston skylines during the 1920s (p. 8 ff.)

Under the new technology category we show contemporary solutions that HÖRMANN offers in the preventive fire protection sector, such as consistently matching steel and aluminium tubular frame constructions as well as T30/F30, T90/F90 sheet steel doors and versions with a smoke-tight function (p. 28 ff.)

Thomas J. Hörmann
Personally liable shareholder

OPPORTUNITIES AND RISKS IN BOOMLAND CHINA

For years now we have been hearing almost daily of some new record or other being broken in China. Residential dwellings and urban sites are planned and constructed at a pace that puts even the postwar development in Germany in the shade. Dr. Falk Kagelmacher explains the consequences of this growth for urban planning, the housing market and the involvement of German companies in the former Middle Kingdom.

China is changing. In itself this is not new. Yet change is the only trend that has proven consistent. Indeed, the adage “nothing is as constant as change”, fits China down to the ground. The change is rapid and as regards contents full of twists and turns, with dynamics more than matching those of the country’s economic development.

The corresponding images increase the effectiveness of the contents: the Shanghai skyline, millions of square metres of new residential and office areas, the new buildings of the 2008 Olympic Games in Beijing as well as the forthcoming World Exhibition in Shanghai in 2010 act on foreign investors and companies like magnets.

Such reports are instrumental in building up immense pressure in the minds of strategic corporate planners and managing directors of major architects offices throughout the globe, creating a compulsion to participate. Yet opportunity here is a risk at the same time. While major projects may be good for one’s reputation, they are not necessarily positive for business. All too often the astonished German architect finds that his design has been implemented without his involvement – something that a number of German architects working in China have already experienced.

Whereas the headlines coming out of China once focussed attention on the major architects, nowadays success and profits in the trade with China are increasingly being chalked up by specialists. For a foreign architect to simply turn up, will no longer do; more and more demands are being placed on the external office. One advantage is that in China the “made in Germany” label is still held in high esteem. German brands are associated with quality and reliability and the Chinese are therefore happy to use them.

The case of Beijing and the limits of growth

Seven square metres. That was the average living space of a Beijing resident in the 1990s. And today? It doesn’t make any sense to seriously answer this question because tomorrow the figure will be higher, and the day after tomorrow it will be completely out of date.

These Beijing dynamics do not follow any fixed set of rules. As far as the economic development is concerned, the central government, at any rate locally, can do no more than simply respond. Any form of self-action has become virtually impossible. A meeting with the China Mayors Association confirmed this. In reply to the question of how the cities and local authorities estimate the speed of economic development, it was conceded that control over this was being lost. In the light of these problems, the central government has decided to exercise a regulating influence over these so called “hot sectors” – to which the construction and traffic sectors are seen to belong. The first direct effects of this rapid growth are the power shortages increasingly experienced in recent times. As reported in the “China Daily”, initial attempts have been made since the beginning of June. It is hoped that artificially produced rain in Shanghai, the Chinese metropolis of millions, will help cool down the atmosphere on hot summer days, causing less electricity to be used. The local government of Shanghai has demanded power cuts in order to counteract the escalating consumption. The concept is for aircraft to fly over the city to create clouds from dry ice, iodine silver and salt in order to bring about rain as a result of the produced physical reactions. Last summer Shanghai’s explosive economic development and a 40-day heat-wave caused massive power shortages.

Author: Dr. Falk Kagelmacher, China Academy of Urban Planning and Design



In the midst of existing housing, new urban areas emerge.



This year too there were reports of energy problems. Factories were partially or even completely cut off from the electricity supply. The “Shanghai Daily” has also reported that with immediate effect electricity for industrially and commercially used buildings will become considerably more expensive. For the time being, private households will not be affected by the increase. If a further heat-wave should hit Shanghai this year, the city could have a short-fall in power to the tune of four million kilowatt hours. This

is equivalent to the annual consumption of around 1000 private households in Germany. In the wake of rapid urbanisation – by 2020 roughly half of all Chinese citizens will be living in towns and cities – the balance between the transport infrastructure on the one hand and industrial and housing development on the other has got out of control. With around 1000 private cars being newly registered every day in Beijing alone, the transport problems are assuming alarming proportions.

The direct result of rapid growth with all its side effects is an increasing shortage of electricity.



You only need to take a short drive through the city by taxi to realize that the city is finding it hard to cope with this scale of growth. Traffic jams are the norm, normal flowing traffic has become a topic of discussion. For the most part, the image of cyclists in the city belongs to the past. Characteristic instead are the dynamics of newly built modern office and residential complexes; a muddle of international style movements. In the search for style and identity, post-modern international architecture is being built. In stark contrast to the faces of the homogenous communistic facades, the modern buildings and city quarters give the impression of a theme park of modern style movements. Glass and steel symbolize progress and that's precisely what most building owners are looking for. The facade becomes the expression and stylistic means of a more short-term marketing approach. On the other hand, questions relating to the energy consumption and air-conditioning of the buildings do not seem as yet to be on the agenda. And yet it is precisely in the sector of intelligent building control and facility management that one of the opportunities for a true transfer

of technology lies. The running costs of a building are not yet recognized as being a key concept. In a city in which half of the residential and office areas are barely 8 years old, the problems relating to the efficiency of the buildings have not yet arisen or are only just becoming apparent.

Opportunities for German know-how

Acceptable design in urban planning coupled with an approach towards sustainability as well as flexible use and resources-conserving technologies could be one of the ways in which medium-sized foreign architect's and design offices could establish themselves. If China values Germany as a high-tech partner, then for German offices in particular this could prove a significant criteria for gaining that all-important foot-hold. "Made in Germany" is still an excellent sales asset, almost as important as "Guanxi", the art of building up and maintaining relations. However, matching planning and utility concepts to Chinese lifestyle concepts does not mean blindly copying the latest movements from abroad. The first priority is to draw up a sound analysis, which should then be sensitively transposed into the Chinese environment. Only in this way is it possible to establish a sustainable system. Foreign architects often find themselves treading new ground in more ways than one. On the one hand because the intentional transfer of knowledge is not considered one of the traditional tasks of architects here. And on the other because the way things are done in China differs greatly from the way things are done in Germany. But in order to establish business relations and achieve long-term success in China, such a transfer of knowledge is essential. How is this achieved? An example: a medium-sized German company can draw on the services of 50 architects. Besides having various areas of focus in the public building sector and health service, it can also boast a large wealth of experience from working on smaller projects. And it is precisely here where a transfer of technology can be achieved by establishing a partnership with corresponding Chinese offices.



HÖRMANN PRESENCE IN CHINA:

- 1998 first HÖRMANN subsidiary in China,
- since 2000 production in Beijing,
- in the meantime three subsidiaries in China and 175 employees,
- Chinese approval / British Standard and certified products,
- products which are produced in China for the Asiatic market: doors, sectional doors and high-speed doors, loading equipment.

Because even projects of this scale require a strategic approach. The Chinese partner acquires the transfer of technology not least through an exchange of architects from China to Germany and vice versa.

Stocktaking, analysis and concept are drawn up in partnership, the design and competition then carried out for the most part by the German partner. Implementation of the project falls to the Chinese partner. The art lies in participating in the net product of the project, i.e. the time invested is restricted to the analysis, concept and schematic design, taking into account the attainable budget.

SARS and the Home Office

A good example of the dynamics of change was the SARS epidemic. The outbreak and reporting in the media led to a large number of employees deciding to carry out their work from home. That having been said, it must be mentioned that in China the separation of the private and professional spheres is far less drastic than here in the West. Here too the Chinese mentality proves to be extremely flexible. Coming across the kiosk owner in his underwear in the morning is just as normal as seeing the furniture salesman setting up his bed in the shop in the evening. SARS combined with the easy accessibility of high-speed Internet connections have greatly accelerated the trend towards working from home.

The project developers of SOHO China (Single Office Home Office) have implemented this concept for China with a great deal of success. A prestigious project in this respect is a newly constructed residential and office complex, close to the centre of Beijing, located in the now-named CBD (Central Business District). Because of how the rooms have been designed, a clear distinction between the living and working areas is not necessarily made. Artists, retailers and the self-employed share space with bars, restaurants and cultural facilities. Particularly in Beijing where loft-living is being discovered as the expression of a new lifestyle, newly built lofts are being offered which deliberately resemble the classic look of post-industrial buildings. In building such complexes, the access monitoring, otherwise usual in China, is dispensed

with because the separation between residents, employees and visitors is less distinct, i.e. the building management's planning adapts to the new conditions.

Where is the trend heading?

The concept of owning property is a relatively new development in modern China. At the same time a middle class has developed which after a long period of time can now finally consume. Thanks to clever marketing some of the housing facilities are already sold before construction gets underway, with potential customers buying one, two or even several apartments. As a rule, the respective units are equipped only with the basics, the rest of the equipment being provided by the buyer. A number of project developers have taken a new route and offer more than the basics. As one of the first to do so, SOHO China has tried to sell an overall impression together with the apartment. The response from the clientele has been extremely positive.

Compared with the local standard, the apartments are well equipped and the public areas are artistically designed too. Likewise the buyer may decide to leave the equipping of the apartment to the service company which then takes charge of the interior work and design.

Opportunities for German companies...

In the construction sector, as in many other areas, maintaining a minimum quality standard is a major challenge. Using unskilled manpower when development is taking place at such a rapid pace, is not without its problems. At the same time there are many areas in the construction industry where adequate standards and regulations have not been put in place. However, China has since recognized the need for regulation in this area and here in particular is orientating itself towards Germany as a role model. It is here based on know-how and quality that German companies have the best opportunities for gaining a foot-hold in the market. One of the most important tasks in this respect must surely be to establish a service network and train up teams in order to attain and maintain a consistently high and sustainable quality standard.

THE RITZ-CARLTON, BERLIN ON THE POTSDAMER PLATZ IN BERLIN

The Golden Twenties – the newly opened Ritz-Carlton on Berlin's Potsdamer Platz captures the flair of that epoch. This five-star hotel is the epitome of chic, internationality and luxury.

The taxi drives up to the entrance and stops under a wide projecting roof. The hectic images of the city traffic are still very much present – 20 minutes drive from Berlin-Tegel Airport, via "die Strasse des 17. Juni" and on past the triumphal column. The porter greets us with a friendly smile and the guest goes inside - to be met by tranquility and spaciousness. The Ritz-Carlton Berlin on the Potsdamer Platz revives the spirit of a past century.

Reminiscent of the Twenties

The Ritz-Carlton is integrated into the so called Beisheim Center, the planning of which – building construction and facade – was entrusted to the Berlin architects Hilmer & Sattler und Albrecht. Otto Beisheim, the Metro founder, invested more than 450 million euros in the new city quarter on Potsdamer Platz, which was opened in January right on cue for his 80th birthday.

The external shape of the Ritz-Carlton orientates itself formally towards the skyscrapers of the Twenties in New York, Chicago or Boston. The cubature features a 35 metre high block and a 72 metre high tower, corresponding to the neighbouring building, the apartment tower housing luxury apartments. Visible from afar: the name of Otto Beisheim carved into the set-back stone structure at the top of the tower. Columns and oriel-like windows define the structure of the facade in light-coloured Portuguese limestone. A canopy characterizes the entrance to the hotel. Access to the luxury apartments is located at the side of the tower area which, like the entrance to the hotel, is two-storied but designed to be a little narrower.

Exclusive and international

A wide staircase with curved flights opening to two sides is the focal point and space-defining element of the hotel lobby. It leads up to the conference floor and reception area of the 910 sq. metre large ballroom, the heart of the Ritz-Carlton. The 5-star hotel boasts 302 guest rooms and suites, including a separate club level on the 10th and 11th floors. Closets and doors in American cherrywood emphasize the overall tasteful impression of the rooms.

The basement is home to the wellness area with swimming pool and fitness room. The maxim of the Ritz-Carlton is to meet the guest on a personal level. The gastronomy is geared towards international cuisine: the "Desbrosses", modelled on a Southern French brasserie from 1875. Lavishly restored and rebuilt to its original state, it serves as the Ritz-Carlton's day-time restaurant. The gourmet restaurant "Vitrum" is furnished in the Italian style.

A diversity of fire protection measures

Planners and operators focussed a great deal of attention on preventive fire protection which as regards both style and function was adapted to the standards of the house. In the guest areas of the Ritz-Carlton importance was placed on timber fire doors from Schöörghuber, whereas for the executive areas planners and operators chose robust HÖRMANN steel fire doors. Underground car parks and storage rooms in the deep basement areas also made an effective division of space into fire lobbies necessary. Here too the planners decided in favour of products from HÖRMANN KG.





View from the roof of the Sony Center overlooking the zoo and the Beisheim Center with Parkside Tower, Tower Apartments and The Ritz-Carlton, Berlin.



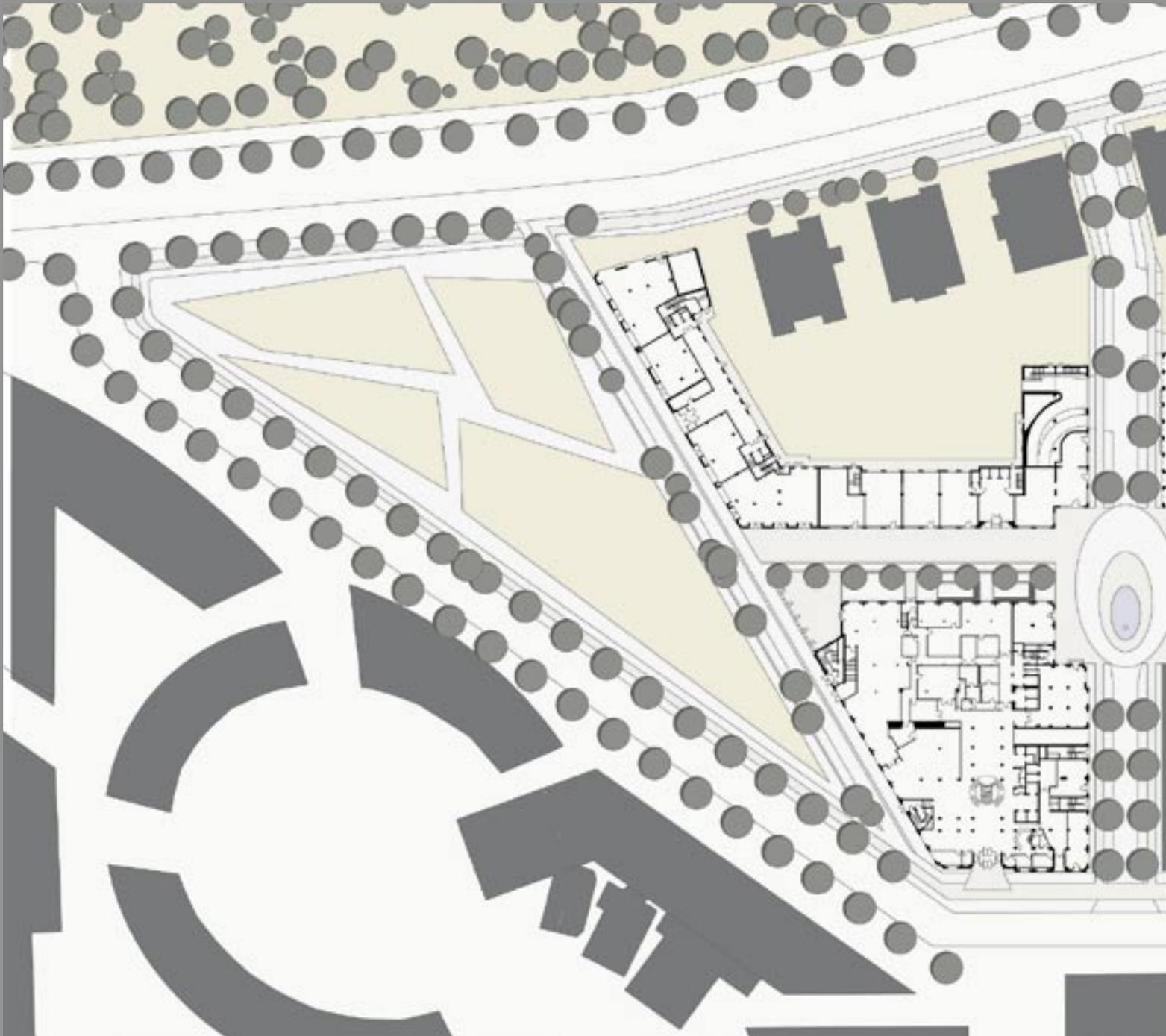
The first upper floor housing the conference area and ballroom is linked to the hotel lobby via a continuous gallery and an impressive centrally located staircase.



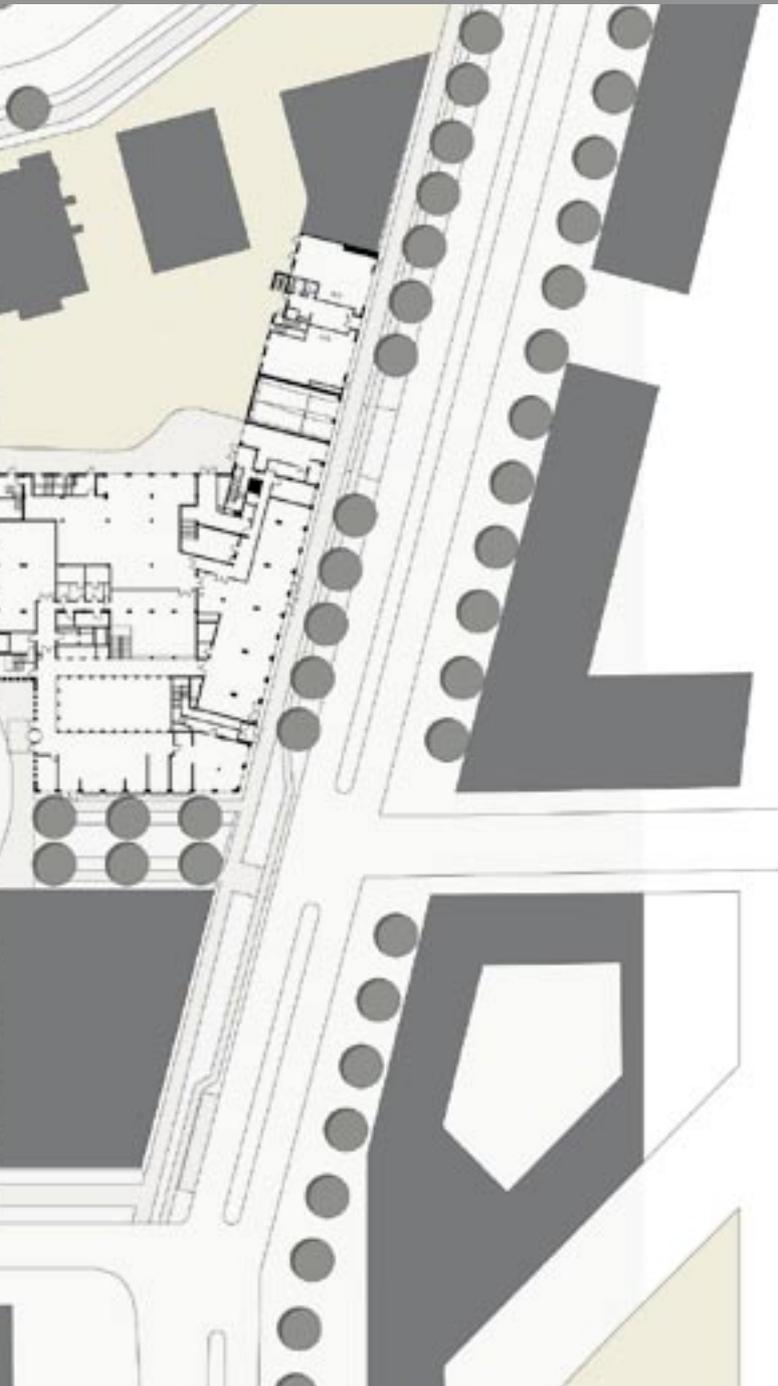
For the entrance doors and wet-room doors, produced by Schörghuber, American cherrywood was chosen.



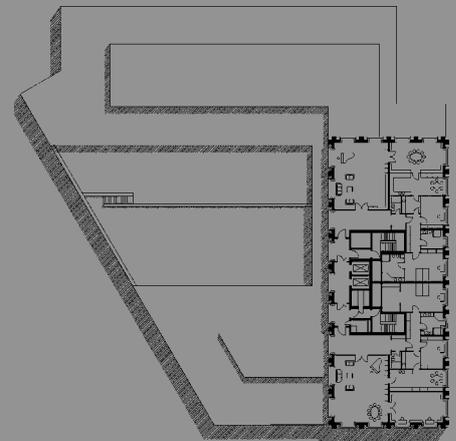
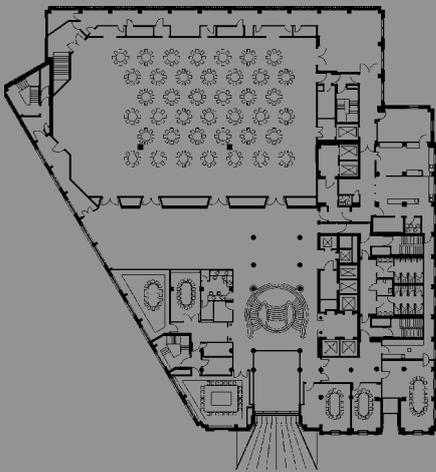
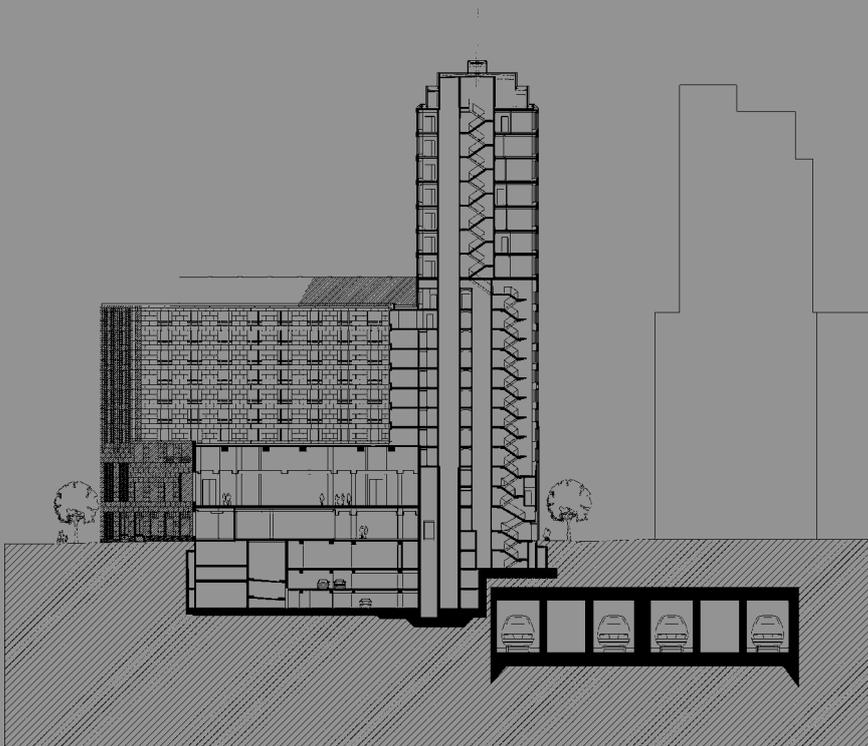
Layout plan/ground floor of the Beisheim Center



Vista of the the Ritz-Carlton's entrance facade



Section and floorplans: conference/ballroom level, hotel level, living level (from left)
Illustration on right: entrance portal of the apartment tower



Pillars and oriel-shaped windows lend the facade of the Ritz-Carlton a precise verticality.

CONTRACTOR

Prof. Dr. Otto Beisheim

DESIGN

Hilmer & Sattler und Albrecht
Gesellschaft von Architekten mbH,
Berlin

INTERIOR DESIGN

Hotel Interior Design
Peter Silling, Cologne

LOCATION

Potsdamer Platz 3, 10785 Berlin /
Germany

PHOTOS

Stefan Müller, Berlin
The Ritz-Carlton, Berlin (p. 11, 13)
Hörmann KG (p. 12)
Schörghuber (p. 13)

HÖRMANN PRODUCTS

Fire doors

SCHÖRGHUBER PRODUCTS

Room doors and wet-room doors



RESIDENTIAL AND BUSINESS CENTRE JIAN WAI SOHO IN BEIJING

The old China has had its day. On the soil of the modern, reform-oriented China new landscapes are emerging every day. Jian Wai Soho is one of the currently developed residential and business quarters, financed by private investors. What sets it apart from the dreams of many other investors? The consistently high standard of the urban-planning and design concept.

“We are creating new landscapes, never seen before in the old Peking”, – these are the words used by Riken Yamamoto & Field Shop Architects from Yokohama to describe their work on the new residential quarter, Jian Wai Soho. Indeed, the construction boom in Beijing appears to be unstoppable and Jian Wai Soho bears witness to this continuous process. It is a residential and business complex in the eastern part of the city, the Central Business District. A close neighbour is the China World Trade Center, a building from China’s first reform period. A further heavily symbolic location is found some two kilometres to the West: It is “The Place of Heavenly Peace”, which gained sad notoriety in May 1989 during the demonstrations to promote democratic developments in China.

A microcosm of different uses

In May 2004 the third construction stage of the Jian Wai Soho city quarter, totalling 70 hectares, was completed, with four further stages to follow in the near future. Besides the also recently opened Soho New Town and the Soho City of Zaha Hadid, it is currently one of the largest privately financed housing projects in Beijing. And with Jian Wai Soho a microcosm of the latest residential building generation has now already emerged: almost 230,000 sq. metres of luxury apartments and 96,000 sq. metres of shops have so far been completed.

Two high-rise slab blocks in the East and nine residential buildings, up to 100 metres high and on the floorplan 28 up to 28 metres large form the quarter’s silhouette. Embedded within this are lower building structures for offices and shops. Different levels, leading into one another and above one another, create space for various places,

gardens and paths. This superimposition also represents the intertwining of the different uses. It is in this context that the word “Soho” is to be understood, being derived from the term “Small Office” – Home Office”, in other words “Home Office”. All the residential blocks have office space on the first three floors, multi-functional studios as well as utility units which can be individually partitioned. Two-storey plenums, the so called common living or communal areas, are distributed throughout every level of the residential towers.

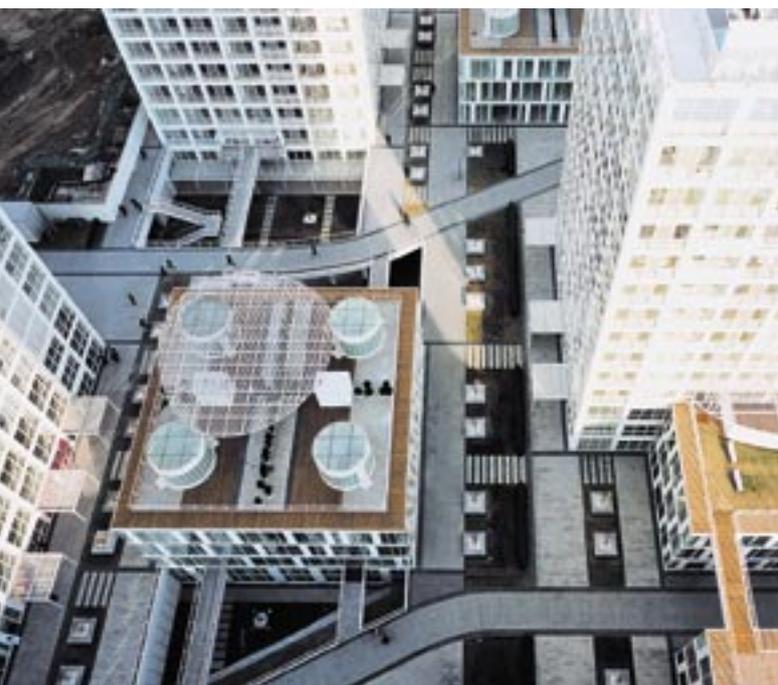
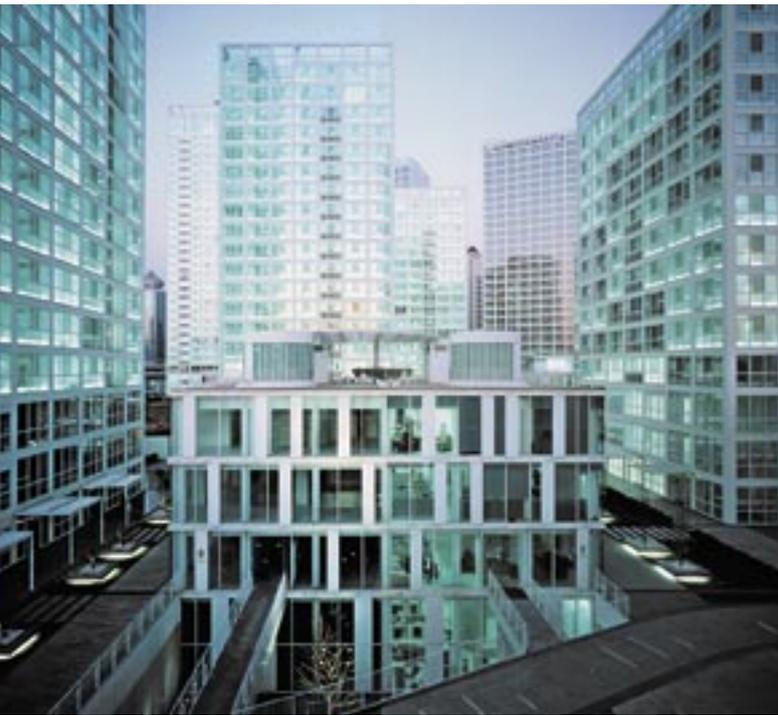
A high standard of design also in the interior

The architectural concept’s extremely high standard of design is also reflected in the design of the interior. Open floorplans and roof gardens characterize the residential units, geared towards the Western standard. With the special design line (Soho calls it “flash-facing”), all the components adhere to the one line. The internal doors of the apartments, the frame and door leaves of which Hörmann KG developed specially for Soho, run on a plane with the wall and can be opened inwards all the way through, in other words “through the frame”. Moreover, the frame of the internal door is not visible, i.e. only a kind of plaster edge can still be seen and the frame face does not exist.

A special construction, based on the double-leaf HA apartment door, was also developed for the apartment doors. Here too the door opens “through the frame”. The central rails have also been dispensed with. In contrast to the frame of the ZK internal door, however, the frame face here remains visible.

The utility concept of the Jian Wai SOHO city quarter – a mixture of apartments, shops and leisure facilities – is mirrored in the urbanistic structure.





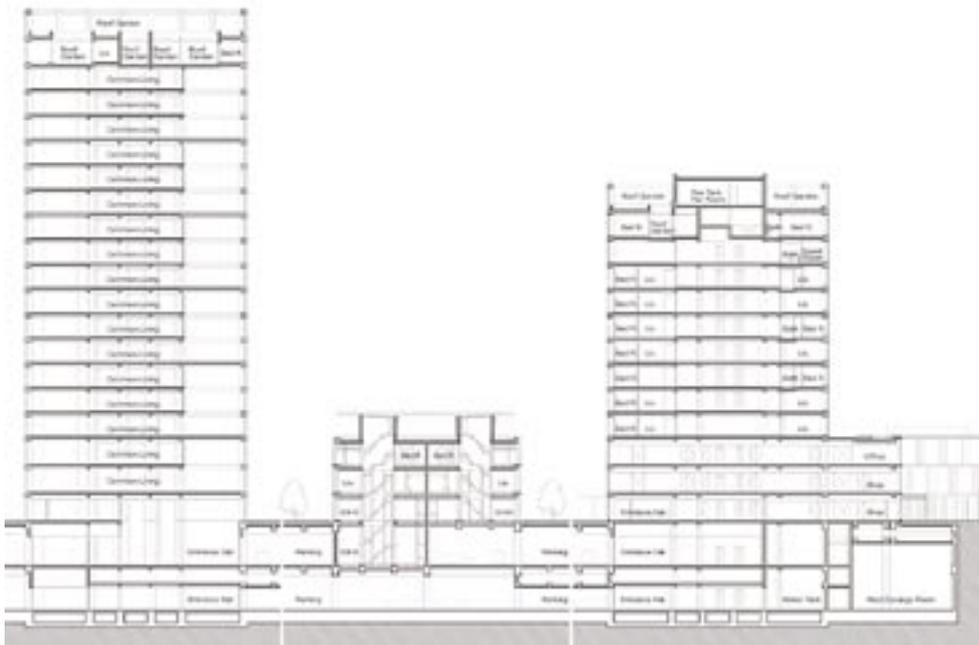
The first stage of a construction project six times as large again:
the Jian Wai SOHO part of the city covers some 70 hectares.



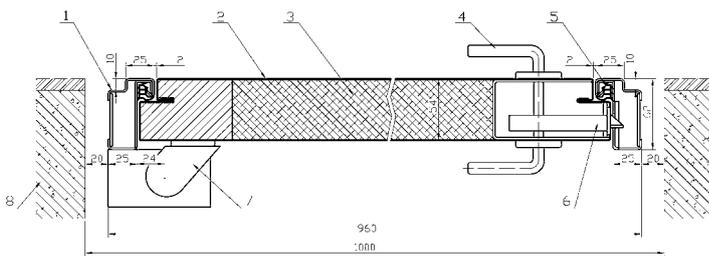
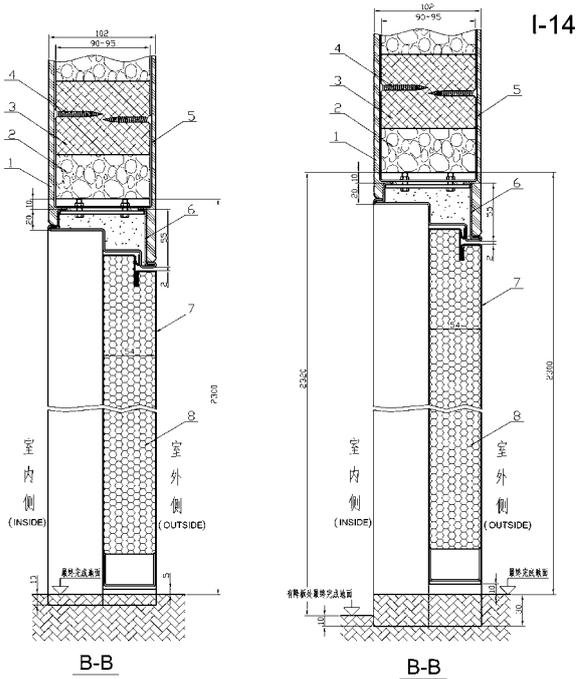
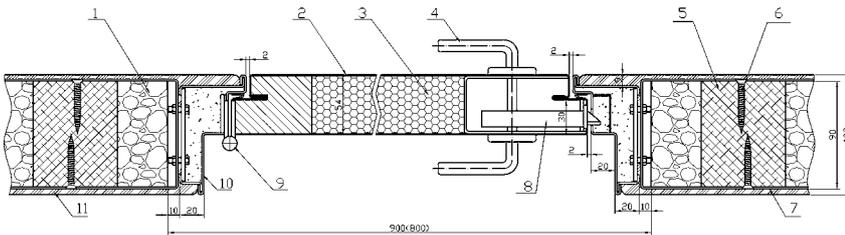
Also the interior furnishings are geared towards the western standard. In total 3131 HÖRMANN doors were installed in the luxury apartments, 686 of which were apartment entrance doors and 2445 internal doors.



Masterplan and section



Detailed sections of an internal door (photo at top and centre) and apartment door



CONTRACTOR
SOHO China Ltd.

PHOTOS
Tomio Ohashi
Hörmann KG Beijing (p. 24)

DESIGN
Riken Yamamoto & Field Shop,
Yokohama, Japan; C + A, MIKAN;
Beijing New Era Architectural
Design; Beijing Dingfang Huatai
Architectural & Engineering, China

HÖRMANN PRODUCTS
HA apartment doors
ZK internal doors

LOCATION
Chao Yang District, Beijing, China

A sign of constant change: cars, construction cranes and the first three building stages of the Jian Wai Soho in the Chao Yang District.



PORTAL TALKS TO THE ARCHITECT NIKOLAUS GOETZE

Von Gerkan, Marg und Partner is one of the German architect's offices which has been active in China now for a number of years - and with a great deal of success. At the present time the gmp subsidiary in Beijing has 11 projects on the go, including large exhibition and shopping centres but also residential buildings and a museum. PORTAL spoke to Nikolaus Goetze, a gmp partner and renowned China expert, about the experience gained from the projects in China, particularly those involving fire protection.

PORTAL: The diversity of the projects carried out by gmp is astounding. The Stuttgart Airport has just been completed but the office is also involved in projects on international terrain, such as in China. A project we must surely mention in this regard is the German School in Beijing. Can you briefly explain the architectural concept behind this project which marked the beginning of your activities in China in 1998?

NIKOLAUS GOETZE: The site lies in Beijing's third diplomatic quarter; the heavily used street Liangmaquiao-Lu and the heterogeneous environs characterise the surroundings. From this situation we developed the idea of

a self-referencing building structure which divides the site into defined spaces via fixed spatial borders. What emerges is an interplay of spaces, demarcations and openings, picking up on the Chinese building tradition of grouping structures together. The ensemble is formed by a school building, characterised by horizontal lines, and, in stark contrast to it, a vertically rising residential complex for teachers and embassy personnel.

PORTAL: What experience were you able to gain in terms of preventive fire protection while working on this and subsequent projects in China? Where does Chinese legislation differ from that in force here in Germany?

Shenzhen Convention & Exhibition Center



German School in Beijing



NIKOLAUS GOETZE:

Certified engineer and architect, born in Kempen, Germany, on 25th September 1959.

- 1980 Architectural studies at the RWTH Aachen, Germany
- 1985/86 Master class Prof. W. Holzbauer, Hochschule für angewandte Kunst, Wien (College of Applied Art, Vienna)
- 1987 Diploma at the RWTH Aachen
- Since 1987 collaboration with the office of Gerkan, Marg and Partners, Hamburg
- 1994 Associated partner at the office of Gerkan, Marg and Partners
- Since 1998 partner at the office of Gerkan, Marg and Partners



NIKOLAUS GOETZE: Within our planning activities in China, the German School in Beijing undoubtedly stands out as an exception because our client was the Federal German Ministry for Construction. We were able to hire a German construction company and the Berlin construction regulations applied. As a result, we had to observe the same regulations for fire protection and prevention as applicable here in Germany. Inasmuch, this project – also in terms of preventive fire protection – did not turn out to be such an “adventure” as other projects that we subsequently worked on in China.

In general it can be said that the legislation governing construction is more bureaucratic in China than in Germany. On the other hand, the Chinese are more open for new suggestions, especially when these come from a reputable foreign architect’s office. For example, for the Shenzhen Convention & Exhibition Center, currently under construction, fire lobbies of max. 5,000 sq. metres were in fact stipulated. However, we deemed it practical to implement fire lobbies of some 30,000 sq. metres. That’s why we explained to the Chinese authorities how we tackle the subject of fire protection in Europe on similar projects, presented our concept to the Fire Service and at the end of this dialogue process, usual in China, our proposal for preventive fire protection was accepted. We have the impression that not only the building owners are interested

in our “European know-how” but equally the building authorities.

PORTAL: Germany could perhaps be termed “the Mecca of Building Regulations”. By way of comparison, what experience have you been able to gain abroad with regard to fire protection?

NIKOLAUS GOETZE: In Germany the building laws are relatively strict, however, we do not see this as an obstacle. Because we adopt a consistently integrative planning approach, we cooperate on every project as a team from quite an early stage. This team includes engineering specialists, such as structural engineers engaged in statical calculations, acoustic engineers, green and light planners who assist us in finding good solutions for plausible concepts. What is interesting is that a country such as Vietnam, which – like China just a few years ago – is at the start of a major construction boom, would like to adopt the highly advanced German fire protection legislation one to one. Presently being built there are major airports and hangars for entirely new aircraft generations, also train stations and exhibition halls, the scale of which extends beyond the dimensions which can be regulated by the existing laws on fire lobbies and smoke development. We are on the spot in Hanoi on account of the planning of the National Congress Centre there, providing, so to speak, development aid in our capacity as architects.

Guangzhou Development Central Building



International Exhibition and Congress Centre in Nanning



TECHNOLOGY

An aluminium system coordinated in appearance

Aluminium doors of the T30 or T90 type or requiring smoke-tightness normally have different profile thicknesses and widths. This is not particularly beneficial when wanting to achieve a consistent architectural appearance.

The HÖRMANN solution:

All HÖRMANN aluminium doors and walls for all areas, whether T30/F30, T90/F90, with smoke-tightness or simple doors without any special requirements are all matching in appearance!



Concealed hinges for fire doors;

Up until now fire doors had to be held within the frame with more or less large, visible hinges.

The HÖRMANN solution:

The new, innovative construction of the HÖRMANN profiles for steel T30 doors as well as steel and aluminium smoke-tight doors now makes it possible to offer concealed hinges also on these doors. Thanks to the combination with the known integrated locking system, the continuous profile is no longer interrupted by a surface-mounted structural component.



Smoke-tightness

Every year roughly 600 people die as a result of fires to property. Of this number approx. 80 percent do not succumb to the flames but suffocate due to smoke inhalation. That's why a fire door should also always incorporate a smoke-tight function.

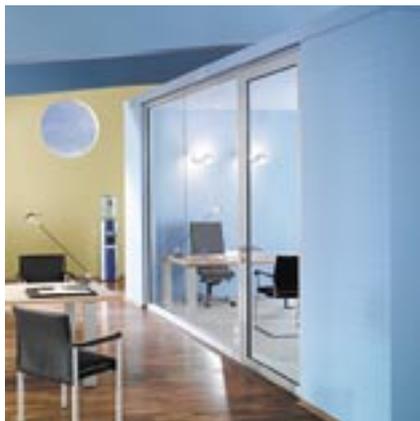
The HÖRMANN solution:

T30 and T90 tubular frame elements offer smoke-tightness as a standard feature. On request, HÖRMANN sliding fire doors also offer comprehensive fire protection, namely a combination of fire protection and smoke-tightness.



Light and transparency;

Daylight creates a healthy living and working environment and helps to reduce a building's energy costs.

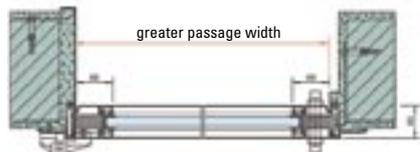


The HÖRMANN solution:

Thanks to their almost profile-free structure, Hörmann fire protection elements of the S-Line series together with the HÖRMANN system wall guarantee a high degree of light transmission and create maximum transparency between the individual utility units: for greater visual contact and improved communication in many different areas.

Emergency and escape routes in old buildings

In the course of renovating and refurbishing older buildings, the fire protection concept must also be revised. In existing buildings we frequently encounter openings which cannot meet the required widths for emergency escape routes when normal door constructions are used.



The HÖRMANN solution:

HÖRMANN steel S-Line doors with fire protection and smoke-tight functions and aluminium smoke-tight doors with corner and profile frames offer approx. 100 mm more passage width compared with conventional profile constructions.

Sheet steel doors matching in appearance

As far as possible, also in the functional areas of buildings, doors with different functions, such as fire protection, thermal or sound insulation or in wet rooms and sanitary areas should be coordinated in appearance.



The HÖRMANN solution:

Thanks to the HÖRMANN system frame all sheet steel doors are always matching in appearance. Glazings in terms of their size and position can also be matched. This applies to single and double-leaf functional doors as well as T30/T90 doors in sizes up to 3000 x 3500 mm.



1. NEW STANDARDS FOR EMERGENCY ROUTES

Nothing to fear from Europe!

The different reports on the European Standards for hardware in the area of emergency and escape routes have brought confusion to the market. In April 2003 the German Institute for Construction Engineering (DIBt) incorporated the European Standards EN 1125 and EN 179 into the Construction Products Lists, Part B. As a result, these products are approved for unimpeded trade and free use within Germany and Europe.

In Germany, however, the standard as regards the use of these products along emergency and escape routes is regulated by the building code law within the prototype building code, the the building regulations of the "land" as well as the annexed special building regulations. The present requirements do not demand any exclusive use of the products, governed by EN 179 or DIN EN 1125. Rather, these requirements can also be met by products based on previous regulations. Should doors be required that comply with the new standards, then Hörmann doors with all the most frequently required locking systems come with the necessary approvals and are available at short notice.

Definitions

EN 179 – Emergency exit locks with lever handle or push plate, for doors along escape routes:
According to European Standard EN 179 an emergency exit lock is a mechanism suitable for buildings in which, should a hazardous situation arise, most probably no panic would break out. Emergency exit locks must guarantee safe and effective escape via a door by means of a single grab handle to release the escape door lock. Previous knowledge of the functioning method of the lock may be necessary in order to ensure that the door can be opened quickly. The lock secures the closed door.

Extracts from the European Standards	European Standard	EN 1125	EN 179	European Standard	EN 1125	EN 179
	Title	Locks and building hardware – panic door locks with horizontal bar handle – requirements and test methods	Locks and building hardware – emergency exit locks with lever handles or push plate – requirements and test methods	Corrosion behaviour	High resistance (96 hours of salt spray fog)	High resistance (96 hours of salt spray fog)
	Opening force under load	Maximum 220 N with a pressure of 1,000 N on the door (simulated panic situation)	No test under load planned	Burglar protection	Staying closed up to forces of 1,000 N	Staying closed up to forces between 1,000 and 3,000 N (depending on category)
	Actuating element	Horizontal bar handle (grab bar handle or pressure bar handle) extending over at least 60 % of the door width	Lever handle or push plate. In exceptional cases: pull plate	Actuating element	Width: at least 60 % of the door width, protrusion of fitting: max. 150 mm or less (max. 100 mm)	Protrusion of fitting: max. 150 mm or less (max. 100 mm)
	Category of use	High frequency of use	High frequency of use	Labelling	Number of European Standard and classification of product	Number of European Standard and classification of product
	Reliability in continuous duty	100,000 or 2000,000 test cycles	100,000 or 200,000 test cycles	Declaration of conformity	Testing by an independent institute	Testing by an independent institute
	Fire resistance	Suitable for fire doors or not	Suitable for fire doors or not	Required audit system	Initial type test: periodic audit test: half-yearly and annually	Initial type test: periodic audit test: half-yearly and annually
	Hazard safety/Personal protection	The product fulfils a crucial safety function	The product fulfils a crucial safety function	CE ID mark	Approved if standard harmonized	Approved if standard harmonized

2.



2. EXTENDED FIRE PROTECTION CENTRE IN FREISEN

In keeping with the continually growing importance of the market segment for fire protection, on the premises of the HÖRMANN factory in Freisen, Saarland, where also some of the fire protection elements are manufactured, HÖRMANN has extended the already existing test rooms to form a fire protection centre with exhibition and seminar rooms. Here, taking place in addition to the theoretical instruction is practical hands-on training using real elements. The area of fire testing includes two fire ovens for fire tests on doors and shutters as well as on fixed assemblies and garage/industrial doors. Fire tests are performed to DIN 4102 Part 5, DIN EN 1634-1 and other country-specific standards. For continuous function testing to DIN 4102 Part 18 and the corresponding European requirements in respect of doors, closing devices, hinges and latching components, extensive test devices are set up in addition. Here tests are carried out to establish whether the fire doors and shutters really do fulfil their intended function. As a result, HÖRMANN is not only well equipped in the field of Development and the training of its personnel and customers but at the same time sets an example for further development trends in this important growth area.

3.



3. UPDATED SPECIFICATIONS PROGRAM

Version 1.3 of the HÖRMANN specification program (only available for Germany) covers a host of up-to-date innovative new products from the sectors of fire protection and smoke control, industrial doors and operators as well as loading equipment. It extends the proven downloads on internal and external doors including frames, garage doors and industrial doors and operators as well as fire and smoke-tight doors. A special feature is that the registered German users are automatically informed by e-mail about updates. The software runs under Microsoft Word 97, Word 2000 and Word XP on the operating systems Windows 98, NT 4.0, 2000 and XP. It makes it easy to produce specification texts in the WORD and GAEB formats. The user-friendly program guides the user quickly and precisely to the HÖRMANN products sought and the corresponding texts. These can be altered or supplemented to meet individual requirements so that an accurate as well as comprehensive project-related product description is ensured.

It comprises an arresting element (also several arresting elements), which engages in the arresting counterpiece in the surrounding door frame or floor. The arresting element is released by actuating the lever handle or by pushing the push plate down or in the direction of the escape route. Note: emergency exit locks are not suitable for panic doors.

EN-1125 panic fittings with horizontal bar for doors along escape routes: According to European Standard EN 1125 a panic lock is a mechanism suitable for buildings in which, should a hazardous situation arise, panic would most probably break out. The objective is to achieve a safe means of escape with minimum effort and without any prior knowledge of the escape door lock. Also by applying pressure to the door (preload) it must be possible to disengage panic door locks safely and reliably. The lock latches the closed door. It comprises an arresting element (also several arresting elements), which engages in the arresting counterpiece in the surrounding door frame or floor. The arresting element is released by actuating the bar handle (horizontally positioned on the inside of the door) in the escape direction or in a downwards rotary motion. The release function must be assured at every point along the effective length of the panic bar.

4.



5.1



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4. GARAGE AND INDUSTRIAL SECTIONAL DOORS ALREADY COMPLY WITH THE EUROPEAN SAFETY STANDARD EN 13241-1

The coming-together of European countries to form the European Union opens up a gigantic market to the numerous suppliers of the member states, making it necessary to issue new sets of rules in order to guarantee the comparability and safety of the products being offered. In the sector of garage doors and industrial doors, the new European Standard EN 13241-1, generally to be complied with as from 1st May 2005, regulates the safety and performance criteria of the corresponding products. Conformity with the requirements of the European Standard is verified by a type test and the CE mark.

Safety first

A high level of operational safety should always be the number one priority when buying a garage door. That's why the new European Standard regulates the measures necessary to ensure the safety of both garage doors and industrial doors, e.g. through safeguards to prevent the door leaf from crashing to the floor, comprehensive pinch and trap protection as well as measures to exclude trip hazards on garage doors with integral wicket doors.

In order to provide comprehensive anti-drop protection in compliance with the latest standards, HÖRMANN doors include the following safety features:

- roller guidance in safety tracks throughout the entire door movement
- optimum weight counterbalance thanks to a torsion spring assembly with grooved spring shaft
- automatic safety device, patented throughout Europe, to lock the door leaf in position in the event of cable or spring breakage and
- spring safety device (also protected by a European patent) which in the event of spring breakage, automatically arrests the torsion spring shaft and retains the door securely in its current position
- and finally, limitation of the closing and opening forces on power-operated doors provides reliable protection against injuries on coming into contact with the moving door.

Hörmann tackles the subject of trap protection threefold:

- through the special shape of the door sections (European patent)
- through side frames, fully enclosed from top to bottom, so there are no gaps to present potential trap zones
- as well as internally guided carrying cables between the door leaf and frame to safeguard against injury.
- A warning strip is provided on doors with integral wicket door to alert the user to the potential trip hazard.

Additional performance criteria

Depending on the application, garage doors and especially industrial doors may demand additional features, for example

- thermal insulation (in heated, refrigerated or air-conditioned buildings) provided by steel sections evenly filled with polyurethane rigid foam and aluminium extrusions with thermal breaks
- protection against noise (e.g. in production facilities and workshops) through door sections with a material composite of steel - rigid foam - steel sandwich construction
- a comprehensive sealing system, comprising lintel seal, intermediate seals between the door sections, lateral seals and bottom edge seal, to keep out rain and dirt as well as
- resistance to wind pressure (for example in exposed locations in coastal and mountain regions) thanks to sandwich sections, aluminium extrusions, special reinforcement profiles and door leaf reinforcements on wider doors.

The necessary level of compliance with these requirements must be certified by an authorized inspection body. HÖRMANN publishes the corresponding values in accordance with the standards in its current door brochures, thereby enabling the planner to make an informed choice in terms of safety features and other performance criteria as to the right type of door.

5.3



5.4



5.5



HÖRMANN GARAGE SECTIONAL DOORS IN A NEW LOOK

In a world of industrially mass-produced goods, the desire of many consumers for individual products is growing ever stronger. This is especially true of a private property in the domestic sector which, despite a certain degree of uniformity imposed by all the various building regulations, should still allow the individual touch to show through. Up until now, however, it was difficult to give house architecture its own personal stamp without venturing into the realm of specials and incurring correspondingly high costs as result. With its new sectional garage door versions, which are particularly suitable for high-end architecture, Hörmann now offers planners the possibility of achieving an individual style in the choice of equipment, without having to forgo the known benefits of modern door technology.

5.1 New "Silkgrain" surface finish

As an interesting alternative to the woodgrain-embossed surface texture, Hörmann has introduced the new silky smooth "silkgrain" surface finish into the range which lends the double-skinned sectional garage doors of the LPU/EPU 40 series in the wide panelled and ribbed versions an exceptionally elegant appearance.

5.2 LPU 40 Design sectional garage doors

In the new Design-line sectional garage doors of the LPU 40 series Hörmann combines the top quality of modern series products with an individually looking design, dominated by decorative stainless steel embellishments and a choice of colours. The range therefore opens up possibilities for achieving individual facade aesthetics, including side doors in a design echoing the appearance of the garage door. Design garage doors and side doors have the silk-grain finish as a standard feature and are available in four design lines in a choice of eleven factory colours and in colours of the RAL colour chart. Decorative elements in brushed stainless steel, applied to the respective garage door or side door sections range from a discreet bottom section strip, through segmental arches and vertically positioned, perforated arched sections, to squares applied over the entire surface, some of which are frame-shaped with or without decorative "carré" inset in the centre. The stainless steel embellishments which can be positioned on the left or right of the doors to choice, are repeated in the corresponding side doors.

5.3 Design garage doors and entrance doors in the partner look

With its new TopComfort entrance doors, matching in appearance the new design garage doors,

HÖRMANN has perfected the possibilities for creating an individual look in domestic properties, so that an overall coordinated appearance of these elements, which play a decisive role in determining the look of a property, can now be achieved.

5.4 New: the particularly attractive wide panelled door

Hörmann's LPU 40 garage doors are now not only available with the known classic panel sizes but also in a particularly attractive wide-panelled version.

5.5 LTH 40 Design garage doors - also with individually routed designs

The LTH 40 garage door series in Nordic Pine or Hemlock also allows individual garage door and side door designs in the form of design doors with decorative routing and decorative stone inlays set into segmental circles. These doors are supplied pre-treated with a protective wood preservative to protect the timber against insect and fungal attack. Site finishing of the timber is essential to protect it against UV rays, at the same time allowing the colour to be matched to the existing structural surroundings.

Alongside standard decorative routings, with LTH 40 garage doors and side doors HÖRMANN also gives you the option of using designs of your own creation, thereby offering you a further possibility to achieve a truly individual look.

PREVIEW

Topics in the next issue of PORTAL: **BAU 2005 "A Munich Special"**

The next issue of PORTAL will be called "A Munich Special" - being a special issue to coincide with the BAU Trade Fair taking place from 17th to 22nd January 2005. Virtually as a supporting programme for those attending the fair we will be presenting current buildings in and around Munich, alongside restaurants, bars and hotels, which deserve a special mention from an architectural point of view.

Photo: Hans Georg Esch



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As Individual as Your Clientele: Customized Fire Protection Elements.



When it comes to fire and smoke-tight doors each customer has his/her own specific requirements: steel or aluminium, robust or elegant, with or without glazing. And of course a

consistent design with doors matching in appearance. HÖRMANN offers you all this with Europe's largest fire protection range. So that you can pursue your own individual fire protection concept.

HÖRMANN
Doors for Home and Industry

