

# movements

MOVEMENTS IN ARCHITECTURE

01 | 2014

## Glittering corona

by DBI Design

Interview with Wiel Arets

Köbogen – Daniel Libeskind reconfigures  
downtown Düsseldorf

Hybrid – the art of a wild mix

**ABB**



Katrin Förster (ABB/Busch-Jaeger) in conversation with Vanessa Brady



Since the 1/2012 issue, Pulse has also been available as a free app also offers version for iPhone, iPad or iPod touch. This time the App also offer additional images of the office building in Haarlem – theater technology transforms it into an events venue.

## The topic: Interior design meets business

*pulse* in conversation with Vanessa Brady, Interior Design Services, London

**As a renowned interior designer you create exclusive interiors the world over. In your opinion, alongside prime quality what other aspects go to make up good interior design?**

As a designer I sell advice; I have always felt that it should be measured and qualified so that the client understands exactly what they will receive. Equally, the designer must be protected from negative accusation which damages reputation and therefore income. Clear, measured terms and conditions are the key to success. The specific design recommendation is individual but the guidelines should be industry wide.

**You are President and founder of Society of British Interior Design, you sit on numerous juries and also have a monthly column in London's Property Magazine. Are you a real polymath?**

No, I'm just a designer with business acumen, or a businesswoman in design – whichever you prefer! I have a passion for excellence and business development in the creative industries where I

am hugely supportive. Business creates and builds opportunity.

**What advantages can a broad network have when achieving goals for the profession?**

Life is very short. I want the people around me to be positive, with that said, I will still never have sufficient time to meet all good people, but I know I must not waste time with unprofessionalism on any level. I do business with people, the money follows automatically.

**In this issue of pulse we are focusing mainly on hybrid buildings – what do you associate with the term?**

I worked with Art University Bournemouth of the Arts specifically this year as the university for interior design student degree exams. They commissioned a research project on hybrid buildings based on global disaster areas and flooding. Creating preformed units removes multifaceted micro problems locally. I think it's a perfect solu-

tion to investment issues, safety and continuity of high standards.

**As an interior designer, do you also address issues of building automation?**

I definitely need to integrate it into the design. A property without automation will not be able to accommodate the countless functions of modern appliances which I specify and recommend. With research and development it's paramount for me to facilitate an infrastructure to meet product needs.

**Has a specially designed switch already attracted your attention?**

Oh yes, I have used numerous one way, two way and three way gangs, plus multi functional isolation plates in my specifications. But when I saw the switch Busch-priOn it just made me realize how much progress has been made since I entered the industry and it demonstrates the need to continually be aware of market trends, product launches and innovations.

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All-purpose room with multi-functional furniture: For the cultural and library center in Vennesla, Norway, Helen & Hard designed rib-shaped timber structures, which double up as seating and a book case (on the left).

# Hybrid – the art of a wild mix

Being flexible and multi-functional are both characteristics any modern-day building needs to meet. As a result there is an increasing number of fans of hybrid structures that combine several building forms, spatially or temporarily. So the time is ripe for the term to be defined, and for an in-depth look at projects that merge several individual sections to form a new whole.

By **Jochen Stöckmann**

“The building looks like a mountain, not because it is meant to symbolize a mountain, but because it works like a mountain.” The head of BIG, Bjarne Ingelsen, enjoys presenting the hybrid character, as well as the dual and multi-functions of his designs, in a striking, verbose way. As with The Mountain, for example, an apartment complex in Copenhagen which, featuring garden terraces in front, towers up above a multi-storey car parking garage. It is not only in the natural sciences that a hybrid, the cross-breeding of two often very different plants, is regarded as particularly adaptable and resistant. But what just grows together without trace in the wild cannot in architecture be simply screwed on or flanged mechanically. So if a hybrid building is intended to integrate a number of ecological, social, and not least of all economic requirements in a single structure, it presupposes a planning and construction-based train of thought.

Until a few years ago there was little talk of this in what tended to be artistically-oriented post-modernist manifestos. Robert Venturi, for example, is quoted as saying: “I like elements which are hybrid rather than ‘pure’, compromising rather than ‘clean’, distorted rather than ‘straight-forward’, ambiguous instead of ‘clearly articulated’ ... I prefer a vital muddle to superficial uniformity.”

## The strengths of ‘both this and that’ architecture

As a technique, making a collage is not to be recommended unless, that is, material-conscious experts such as NL Architects are on the job. In 1998 the, at the time still young Dutch planners triumphed with their initial WSO8 project, a heat transfer station near Utrecht, which from the outside looks like a beautiful abstract sculpture. A polyurethane skin, with which the architects defied all too rigid definitions, was the deciding factor. After all, when designing a hybrid, clear demarcation between separate elements such as roof, wall, and floor is only obstructive. And an early decision in favor of tiles for the roof, plaster for the facade, and concrete for the walls and ceilings seldom produces the desired result.

That said, with their “wrapping” for the heat transfer station NL Architects had more in mind than merely combining technical infrastructure and art in a public space. From the outset it was to be expected that given the rapid expansion of the neighboring suburb, the location of WSO8 behind an idyllic farmyard would change within a few years. In order to prevent vandalism by suburban gangs, the architects fitted handles to the outer skin, thereby creating a veritable climbing garden and without further ado were able to add a basketball basket. In the end, nesting boxes for swifts were also attached.



Tim Hursley

This multi-purpose use was made possible by 'both this and that' architecture, suitable both for technical purposes as well as sport; an objet d'art that at the same time serves as a catalyst in terms of urban design. This development was, and indeed still is, driven by theoretical imagination. Practical experiments have, however, also moved the evolution of hybrids forward: In his search for appropriate technologies, in Africa in particular the architect and environmental activist Joseph F. Kennedy came across prime examples in the form of a mixture of materials including loam, straw and palm leaves, as well as concrete, bricks, and polyethylene foil.

By way of contrast, in Europe and the USA advanced computer-generated technology is used – taking innovative test tube materials into consideration. As long ago as 1999 Peter Zellner ("Hybrid Space") summarized the buildings, which actually scarcely make it beyond the rendering stage, this digital architecture could produce. Manfred Wolff-Plottegg, Professor of Building Theory in Vienna, is restrained in his judgment "that superficially at least the development of computers with their new geometry ... got rid of a lot of outdated architecture. Freed from their duty to make pictures, architects were able to concentrate on their key area, though working by the new rules of computer architecture."

### The hybrid as an adaptation artist

As early as the 1920s there were signs of a caesura in urban planning: As opposed to Le Corbusier's division of cities into functional zones and a hierarchical building system that started with standard-setting monuments in city centers, across the board Ludwig Hilberseimer's urban utopias envisaged all forms of use in one and the same type of building. Be it a high-rise slab or a flat wing, there should be equal room in buildings for work and commerce, residential and leisure time facilities, business and pleasure.

In the Netherlands several buildings by Wiel Arets can currently be admired: On Hoogvliet Campus near Rotterdam, for example, six slightly varied versions of one and the same type of building serve as a sports center, art studio, and office and residential building. As hybrid buildings these edifices are equipped for almost any function and for which, determined by the state of the economy, there is currently the greatest need. On the other hand, with regard to the development of the Forum Würth in Rorschach, Switzerland, Gigon / Guyer did not count on there being an imminent change in user structure: Its connection with the firm's own highly regarded art collection turns an administration center into a new corporate culture calling card. For the VINEX housing construction program launched in 1993 in the Netherlands, plans are made over lengthy periods of

21c Museum Hotels is the name given to the combinations of hotel and 24-hour museum designed by Deborah Berke. Following the edifices in Louisville and Cincinnati, in 2013 a museum hotel was opened in Betonville (Arkansas) (above and right).



time: In order to cater for the demographic change, hybrid building types are designed with a change in function in mind, and can therefore be used without major alterations as a school or residential building. With regard to the size of the windows and the height of the ceilings, attention must be paid to the fact that no particular function is outdone, nor that an “average” compromise only entails disadvantages, both for schoolchildren and tenants. For the most part a decision is made from an economic point of view: in favor of the residential function, which ultimately generates the greatest return. An experimental living project by the firm Architektur Contor Müller Schlüter in Wuppertal attempts to avoid this dilemma: On the inside the three students’ houses are to a large extent structured by non-load-bearing walls, while the facade is made of movable timber panel modules. This way the individual apartments can be extended at any time to make them larger.

#### **A hotel that doubles up as a museum**

Hybrid design has long since been aware of the problem with the one-sided definition of priorities. If great store is set by a good printer, the multi-function device is at best tolerable as a scanner – and of little use as a fax machine. All the more remarkable is an, in every respect, balanced module that Helen & Hard designed for the interior fittings in a cultural and library center in Vennesla, Norway. The rib-

shaped wooden structures divide up the all-purpose space, look like acoustic sails, serve as ventilation and electrical fittings shafts, while at the same time being seating or a book shelf. With individual solutions that are specific to the location and surroundings, hybrid architecture is increasingly asserting itself. For example in the shape of the monolith, which behind its uniform facade conceals the entire range of big-city living. That said it is the commercial interest alone in accommodating as many uses as possible in as big a structure as possible that is decisive. Indeed, in 1969 in the John Hancock Center in Chicago, shops, parking spaces, restaurants, apartments and a TV studio were layered on top of each one another. The concept of the one 100-storey building envisaged factories, markets, offices, a theater, apartments, hotels, and an amusement park in a single building.

In the case of the 21c Museum Hotel, urban design considerations recently also played a role alongside economic factors. In 2006 in downtown Louisville (Kentucky), Deborah Berke transformed a listed block of five vacant warehouses into a combination of hotel and 24-hour museum for the works owned by the art collectors Steve Wilson and Laura Lee Brown. The concept appears to have been a success: In 2009 and last year the architect built two more 21c Museum Hotels, in Cincinnati and Bentonville (Arkansas) respective-



Iwan Baan

ly. The main task was not to make individual spaces usable for both facilities, but to have museum rooms and hotel rooms “become part of a whole”. In this case too the Swiss architect Piet Eckert fails to see a genuine hybrid building, which he differentiates from a multifunctional building. For him, there is too great a focus on a one-sided calculation: The museum is a source of money for the hotel. In his view there is too little experimentation with the interplay between multiple uses, resource savings, urban design charisma and innovative design. Even in the near future a hybrid complex is conceivable in which exhaust air from restaurants or a small factory is used for living areas. For the Heinrich Böll Foundation, Eckert and his Zurich studio e2a designed a glass cube that is as simple as it is ingenious, and which combines the befitting foyer and auditorium with a low-cost office and administrative wing. Construction costs of just under EUR 10 million produced a surface area of 7,500 square meters. Primarily, though, with this design the architect was able to gain the experience so important to him, that “a hybrid building is something different from a multifunctional building: It is about the development from one type of building and the use of another, of a new, third kind, which can suddenly become ambiguous. And in terms of typology, that can lead to a new discovery.”

At the moment there is no other terrain more suited to discoveries of this nature than Berlin. Near ‘Ostbahnhof’ station, where to date the ‘Mediaspree’ project has spawned only commercial corporate headquarters and event centers, a cooperative that emerged from the club and creative scene is in turn running the utopian-looking Holzmarkt project. It encompasses five residential timber and glass high-rises, linked to one another by a “mountain path”, in the center a stylized “village” and “Mörchenpark” for urban gardening, not to mention the hotel with a wide range of rooms, from rustic sleeping berth to magnificent suite and an “Eckwerk”, a technology center for start-ups, with student accommodation and “professional agriculture” on the roof. Two totally contrasting offices are intended to bring together the flamboyant plans in the form of convincing architecture – the architects at Kleihues+Kleihues with their rather functional and rationalistically calculating approach, and the “young wild things” at Graft. An interesting starting point for what is perhaps the next hybrid in Germany.

**Jochen Stöckmann** works as a radio journalist and author in Berlin. Until 2000 he was a journalist for Hannoversche Allgemeine Zeitung, since when he has been a freelance journalist for FAZ, DeutschlandRadio, deutsche bauzeitung and stylepark.com, among others. Since 1997 he has been an associate member of the Lower Saxony branch of the Association of German Architects (BDA).



Graft / Kleihues+Kleihues

Like on a mountain slope, on the front of a Copenhagen apartment complex BIG stacked garden terraces above a multi-storey car parking garage. He called the project “The Mountain” (right).

The Heydar Aliyev Center in Baku, the capital of Azerbaijan, combines a whole host of facilities. For many this is Zaha Hadid’s “most flowing building” and best symbolizes her post-modern approach. Alongside a conference hall, the culture “blob” boasts a museum, a library, and a café, as well as other facilities (center and above). The Berlin studio Kleihues + Kleihues as well as Graft are currently working on the complex ‘Holzmarkt’ project, which among other things includes five residential buildings and a stylized village (below).



# An office with a pulley

In just a few simple steps the advertising agency Helder groen's office loft in the Dutch town of Haarlem can be transformed into an event room that can be used for various purposes. The architects responsible talk of dual use, which in big cities could well catch on. The developer is delighted with the gain in terms of image, and is banking on an improved work-life balance and a pleasant working climate.

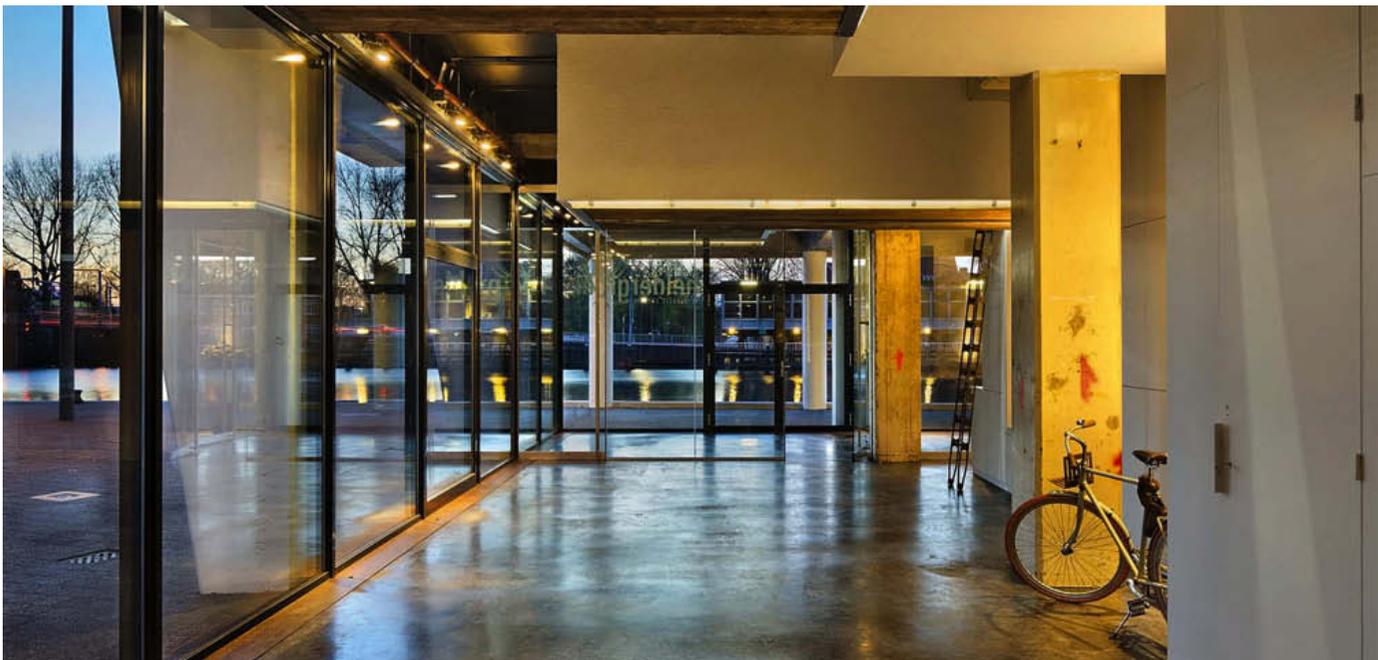
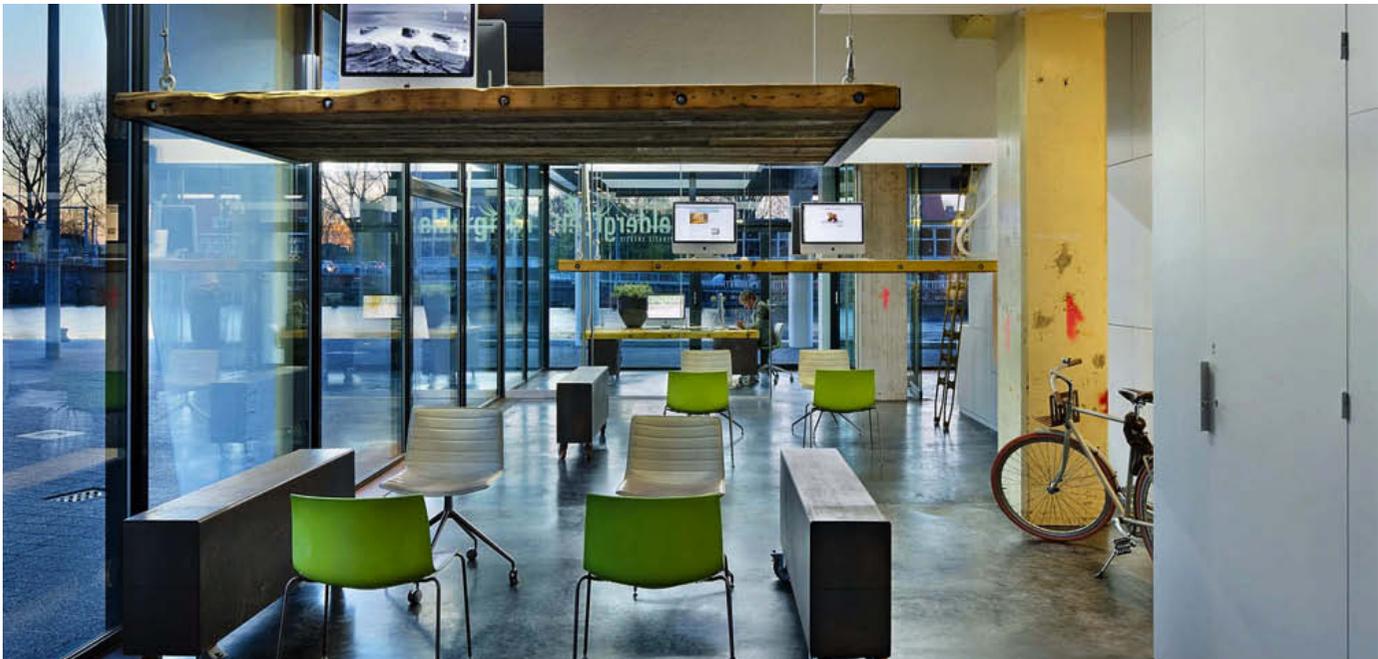
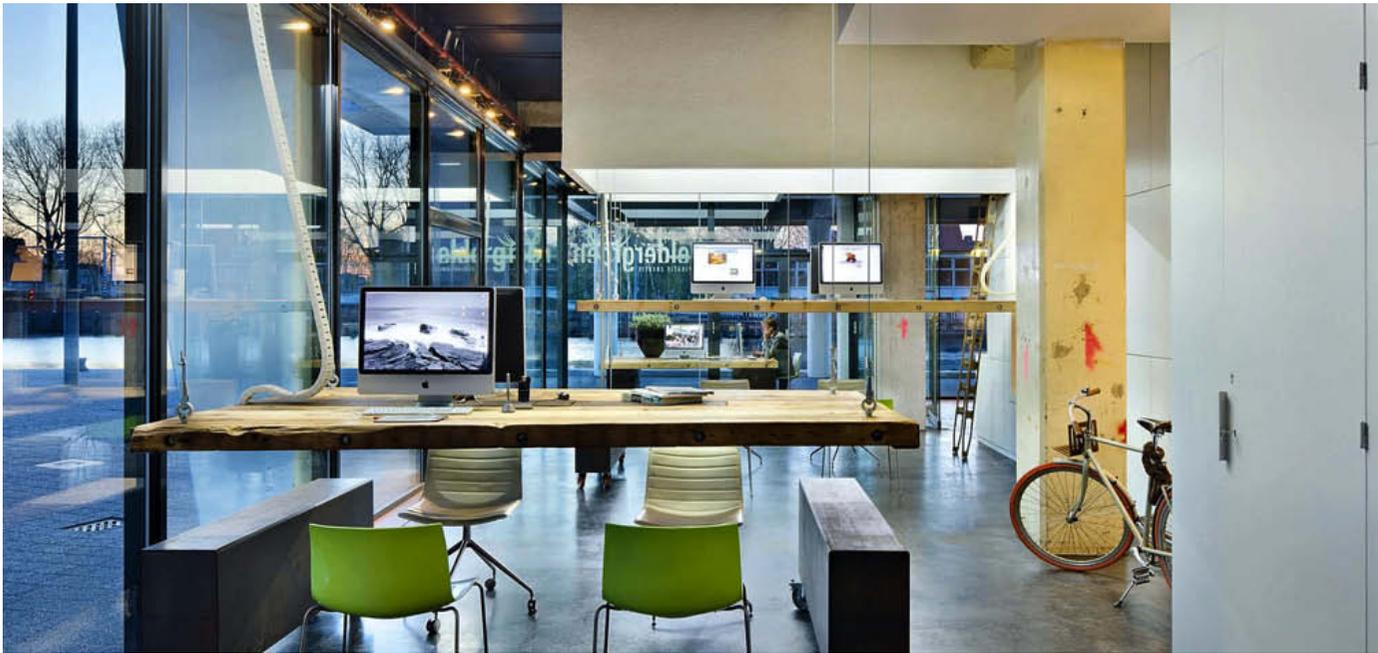
Text **Lasse Ole Hempel** Photos **Jaroslav**

The concept for the interior of the advertising agency Studio Helder groen in Haarlem is literally like a balancing act. In the morning, when the first employees enter the building, the solid wood desks are slowly lowered from the ceiling. They are suspended from wire cables, and the cabinets are on wheels. At lunchtime the desks are mostly returned to the ceiling, and the team sits around a large dining table and has lunch together. In the evening the three desks and the computers on them disappear into the ceiling again, and the cabinets are pushed to one side. The office, which is around 200 square meters, turns into an event location, which can also be used by members of the public, for parties, yoga courses, art workshops, fashion shows, and dinners. The concept for this unusual office comes from a multi-disciplinary team assembled by the architecture studio Zecc in Utrecht, the advertising agency Helder groen and the furniture designer Teun Vrolijk. Referring to the project, the Zecc architects talk of a "dual use". For them the offices in Haarlem can serve as prime example of how the same premises can be put to innovative multiple use, a response to rising rents and a shortage of space in big cities.

## **A wall made of recycled car doors**

"For us the idea of lights being switched off everywhere in the evening and offices standing empty until the first employees arrive back the next morning was disconcerting," Sander Veendendaal, the head of the agency, told the online news agency "spiegel-online". But then Studio Helder groen is no ordinary advertising agency. Its very name is evidence of its particular focus: Helder groen means light green in Dutch. The studio primarily devises campaigns for small companies committed to sustainable goals. Its client base includes a green bank and South African Tourism, which offers eco-friendly and socially aware trips. A closer look at the studio interior reveals that it also pays great attention to the topic of recycling. For the offices an entire wall was made of flattened car doors, and the solid tables of old electricity pylons. Aptly, "sustainability can be very attractive", is the studio's message. Fixed to the tables and used for winching these up, the martial-looking electric hoists are reminiscent of the building's industrial past. Overall, through their choice of materials (concrete, wood, and steel), the designers make reference to its original use as a silo for a chocolate factory.

As if by magic the desks disappear into the ceiling and make room for other activities (on the right).





### **White tubes conceal the cables**

Designed by theater technology experts, the pulley is of course the outstanding feature of the concept. The desks disappear into large boxes on the ceiling, in which LEDs and the acoustic system are integrated. The computer cables run in flexible, white tubes that are normally used in medical technology. The polished concrete floor regulates the ambient temperature; hot water flowing through it gives off a pleasant level of heat in winter, while in summer cold water has a cooling effect. Outside air passes through spiral radiators, which raise or lower its temperature accordingly.

Studio Heldergroen is surrounded by glass on three sides; this creates transparency and offers staff a magnificent view of the River Spaarne and downtown Haarlem. The studio is completely opaque on one side, where all the facilities the offices needs such as toilets, cloakroom, kitchen, wall cabinets, and server room are located. The wall in the open-space office is functional in structure, though with its integrated benches, cabinets, and ceiling recesses for the hoisted tables, seems sculptural.

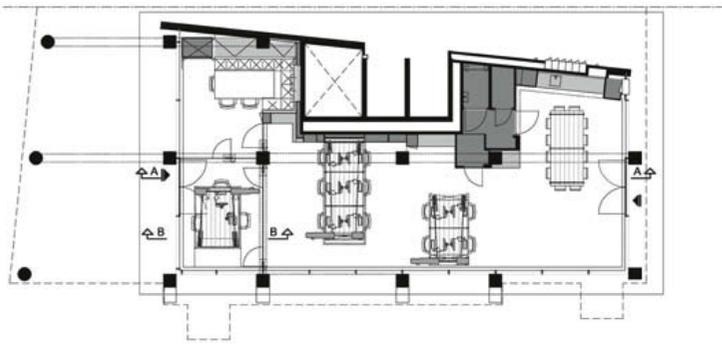
### **Genuine improvement**

Since the new premises were opened four years ago the response to the concept has been positive, and the project has also received tremendous support from those who consider a work-life balance to be indispensable for a company's success. "People have to enjoy coming to work", Veenendaal, who himself often attends the hour-long evening yoga session, stresses. "The work and office balance has to be just right." On top of which its variable use has been a genuine improvement for the office, as it is no longer regarded merely as a working environment. Only by attending the evening events did outsiders become aware of the advertising agency. Additionally, the fact that the desks can be raised is also a security aspect: Burglars with an eye on the computers would face enormous problems.

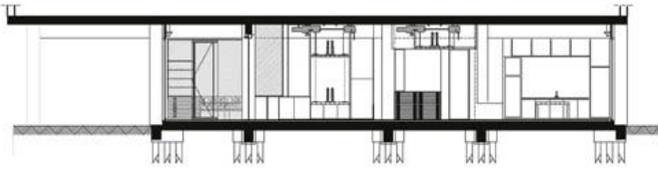
### **To be continued?**

According to Bart Kellerhuis, the managing director of Zecc Architecten, the feedback from the client has so far been very positive. Unfortunately the architects' temporary hybrid concept has not yet been adopted by anyone willing to take on or adapt the ideas put into practice in Haarlem for their own premises. Other dual use concepts would also

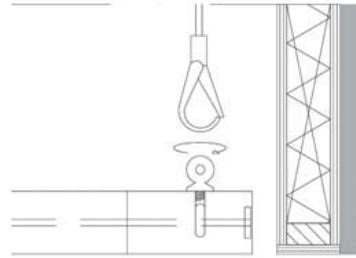
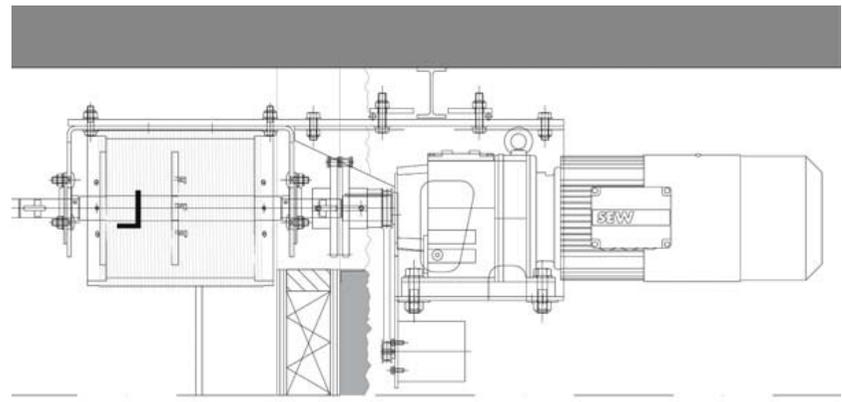
Fair-faced concrete, wood and glass are the dominating materials in the office. The transparent windows afford a superb view of downtown and the River Spaarne (above).



Layout



Section AA



Detail pulley

be conceivable – why not, for example, combine an office and a café in a single place? Bart Kellerhuis could well imagine using the pulley system in a larger multi-functional building. Among other sources, Kellerhuis took his inspiration for the advertising agency Helder groen from the Art and Architecture gallery facade in New York, which Steven Holl designed in the 1990s, with its flexible facade elements that open out the interior to the road and give the building its identity.

## Project partners

### Developer

Studio Helder groen, Haarlem

### Architects

Zecc Architecten

(in a team with Studio Helöder groen and the furniture designer Teun Vrolijk)

### Gross floor area

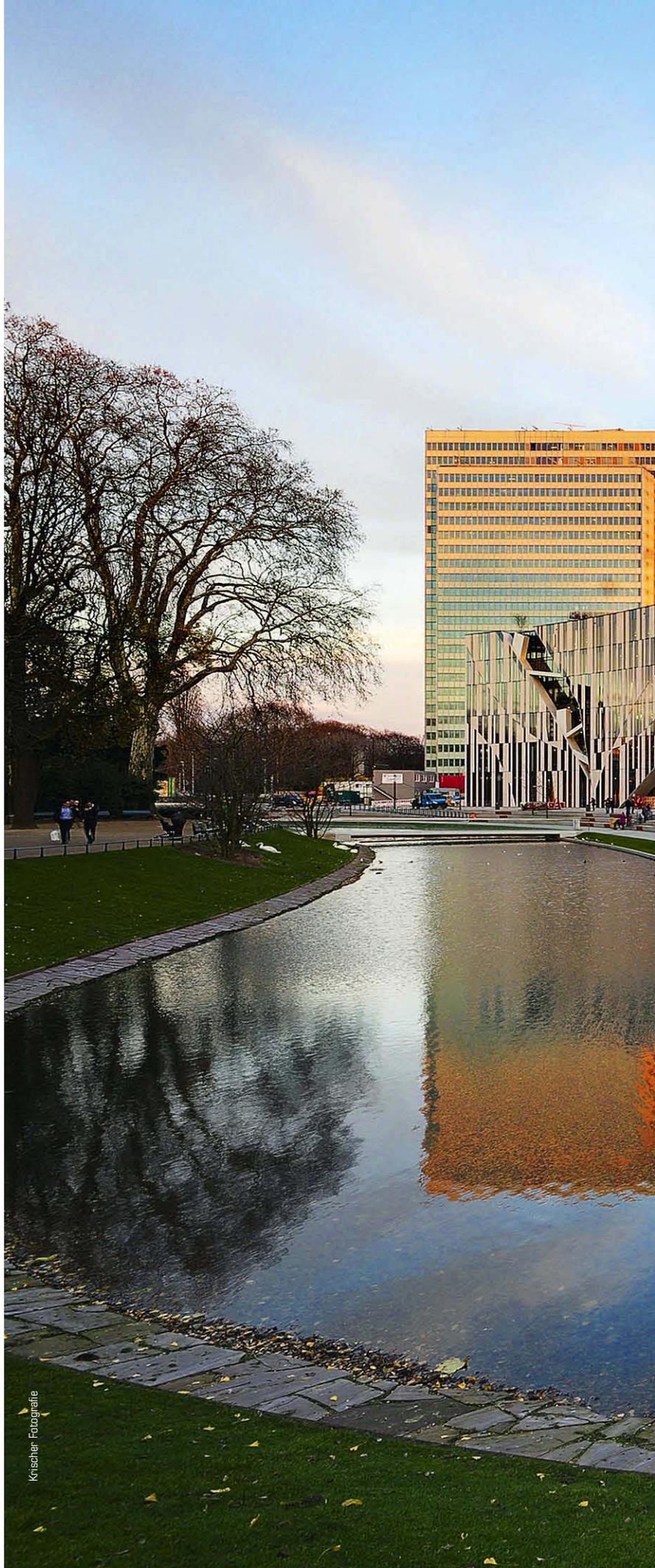
Approx. 200 square meters

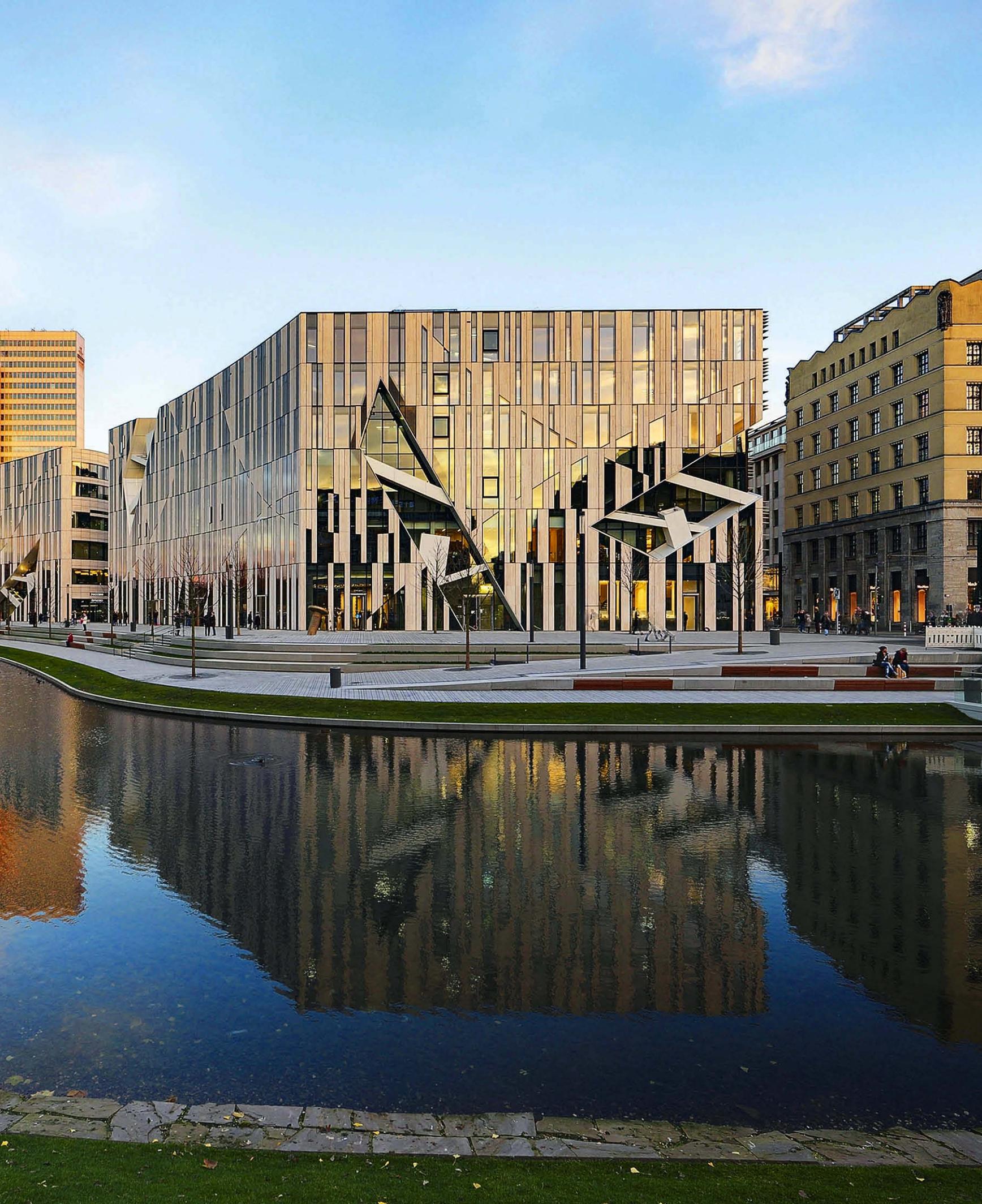
# On Königsallee

With the “Kö-Bogen” development Daniel Libeskind has reformed the historical link between “Königsallee” and the “Hofgarten” park. Where previously streetcars ended their journey and turned around, an attractive office and luxury shopping complex has arisen.

Text: **Uta Winterhager**

In March this year the “Kö-Bogen” development designed by Daniel Libeskind received the MIPIM Best Urban Regeneration Project award. That might well have come as a surprise to many, because until the very last the city of Düsseldorf’s major urban fabric repair project had been a controversial matter. It was the construction of a new subway line passing beneath the downtown area that triggered the deliberations about large-scale restructuring of what was formally Jan Wellem Platz in terms of urban design and traffic. As a major local transport hub, Jan Wellem Platz no longer boasted the qualities associated with a plaza, representing a seemingly insurmountable barrier between “Königsallee” and the “Hofgarten” park. With the construction of the subway, the city seized the opportunity to also have both moving and stationary traffic disappear underground. The demolition of what was known as the “Tausendfüßler” caused huge controversy; this elevated road built in 1962 by Friedrich Tramms was a stretch of a north-south link through downtown and was part of his vision for a car-friendly city. The disappearance of traffic below ground level freed up a plot of land with perfect infrastructure links in a prime downtown location,







Krischer Fotografie

providing an opportunity to bring its use and the buildings up to present-day speed. The project also offered an opportunity to recreate the historical link between Königsallee and the “Hofgarten” park, which had disappeared in the post-War city. Even as planning got under way there was talk of it being the “project of the century”. In the international tendering process, Düsseldorf (as a debt-free major city a rarity in the state of North Rhine-Westphalia) was able to peg purchase of the land to a series of tough standards. Of the ten teams that took part, the tandem of “die developer” (Düsseldorf) and Studio Daniel Libeskind (New York) prevailed.

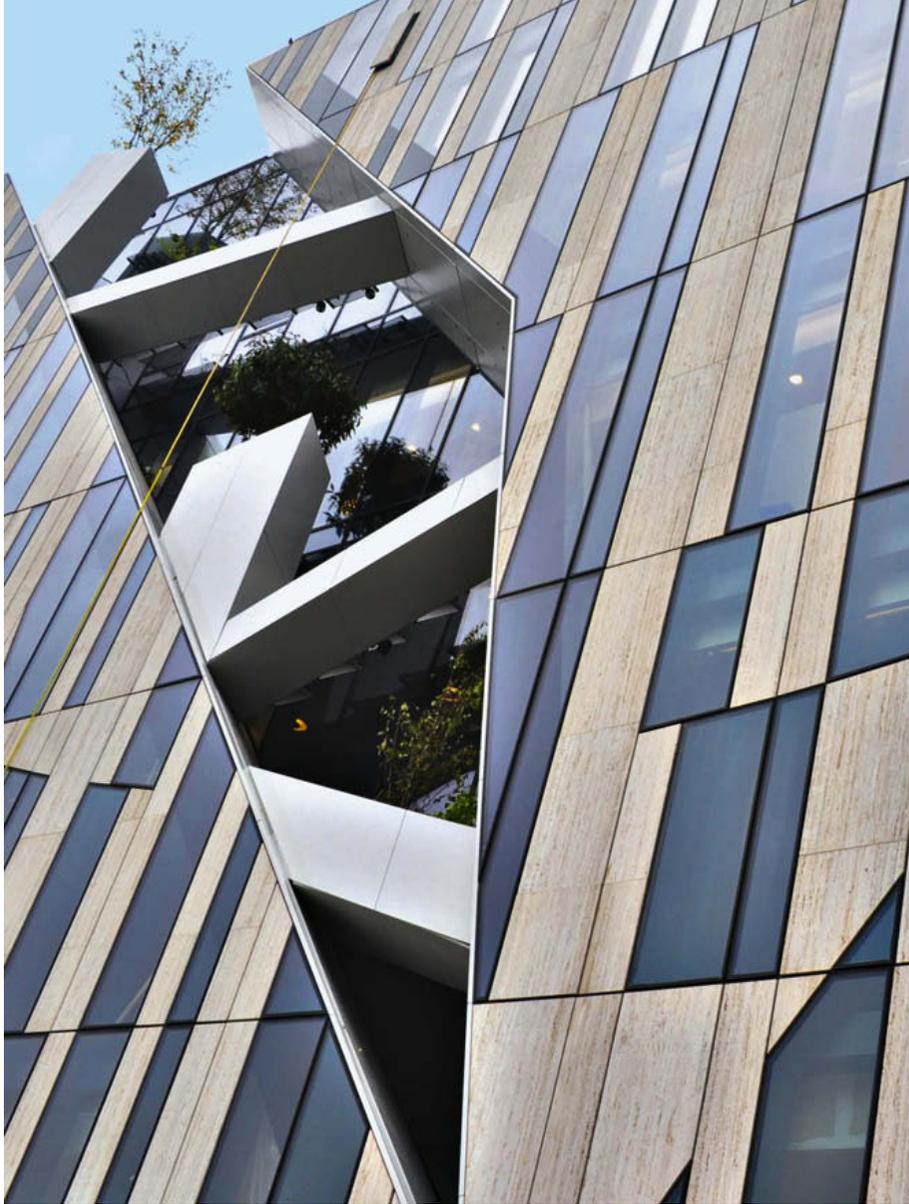
**The façade is reminiscent of a loosely hanging curtain**

Opened in October 2013 following a construction period of just three years, the office and retail complex fully exploits the 9,000-square-meter footprint, creating a gross surface area of 39,000 square meters over ground and 36,000

square meters underground. Thanks to a vibrant architectural solution, Libeskind nonetheless succeeds in responding to the individual qualities of the surroundings. Adjoining in the east, the ensemble comprising the “Dreischeibenhaus” and the “Schauspielhaus”, for example, was freed from isolation and reintegrated in an urban context. With the two six-story structures “Haus Königsallee” and “Haus Hofgarten”, which share the address Königsallee 2, Libeskind reiterates the dense block structure downtown. On the west of the site he continues the line of the buildings on Königsallee, while on the northern side facing “Hofgarten” park he follows the gentle curve of the “Landskrone” pond. The extension of the latter as part of the urban redesign enabled Maximilian Friedrich Weyhe’s historical design for “Hofgarten” park to be reestablished.

On this side, which faces away from the city, Libeskind designed a spacious promenade with tiered seating over-

With “Haus Königsallee” and “Haus Hofgarten” Libeskind reflects the dense block structure downtown. In the direction of “Hofgarten” park the architect included a spacious promenade fronted by tiered seating (above).



Studio Daniel Libeskind; Murphy Facade Studio



Iconography a welcome feature: The alternation between differently designed façades and the cuts that have yet to be greened provides momentum, and turns the office and shopping complex into a typical Libeskind structure.

looking the water. On the eastern side facing the “Schauspielhaus”, and in the south looking out onto the city, the stringent alignment of the building’s contours, which are determined by the surroundings, dissolves and takes on the shape of a wave. Like the façade of Bernhard Pfau’s neighboring ‘Schauspielhaus’ the result is reminiscent of a loosely hanging curtain. Depending on the angle from which they are viewed, the two structures are separated or linked by the, likewise curved, “Hofgartenpassage”. Coming from Schadowplatz, this arcade leads directly to a new pedestrian bridge which takes one across the pond to the “Hofgarten” park, which affords a view from the city of the surrounding greenery, and from the park of the city. The idiosyncratic shape of the footprint is projected upwards as high as the eaves, such that from the road the two structures are unobtrusive despite the eccentric shape, which would otherwise only be to the detriment of the so carefully repaired city fabric.

### **Green “cuts” and a façade resembling a barcode**

What really catches the eye, however, are the building’s façades, and indeed the wish for an architectural icon here had been expressed early on. To this end Daniel Libeskind designed no less than three different types, all of which clearly bear his signature. To the west and north (the sides overlooking “Hofgarten” park), the façades are divided up into comparatively small sections, the vertical structure reminiscent of a barcode. The alternating light Roman travertine and dark tinted glass produce a graphic that appears to be multi-layered, and which provides only an idea of the originally modular configuration of the façade elements and the individual stories. The surface is perfectly flat, like a screen, with only individual travertine elements penetrating the smooth shell of the building when they are pushed outwards for ventilation purposes.



Matthias Kunde

In Düsseldorf Libeskind once again resorts to a design element that has become his trademark, deep cuts. Yet whereas in the Jewish Museum in Berlin narrow slits allow light to penetrate the solid structure, here luxuriant greenery will soon serve as a further link to “Hofgarten” park. To enable the plants to thrive in this unusual position, the troughs installed on a slant in the cuts’ steel structure were fitted with a specially designed heating, irrigation, and illumination system so as to be able to adapt the climatic conditions to the plants’ needs as well as possible. On the inside (be it from the offices or hospitality and retail outlets) the green cuts development can be experienced in the façade through clear rear glass – Daniel Libeskind designed them together with the Düsseldorf landscape planner Sebastian Fürst specially for the “Kö-Bogen”.

#### **The interplay between different façades**

Although right around the development all the ground floors are used for retail or hospitality outlets, on none of the sides do prominent lettering, signs, or banners disturb the careful design of the building’s sheath. For the retailers this took some getting used to, as the display windows do not offer an enormous amount of space either, though the experience of the past few months would indicate that the brand architecture is itself an ample signal to attract potential customers.

On the downtown side, the “Kö-Bogen” development presents a completely different picture. On the corner of Königsallee, the all-glass curtain wall with stiff vertical aluminum lamellas that serve as sun protection abuts on the travertine and glass façade. This harsh interruption is a provocation of the way we view things, as it is difficult

The “Kö-Bogen” development extended the Königsallee axis as far as “Hofgarten” park. The neighboring “Dreischeibenhäuser” is now closer to the center (above).



POCCINO

ESPRESSO

Kö-Bogen

P  
Pöytäpaikka

SANDHOLM

TEFFGARAGE





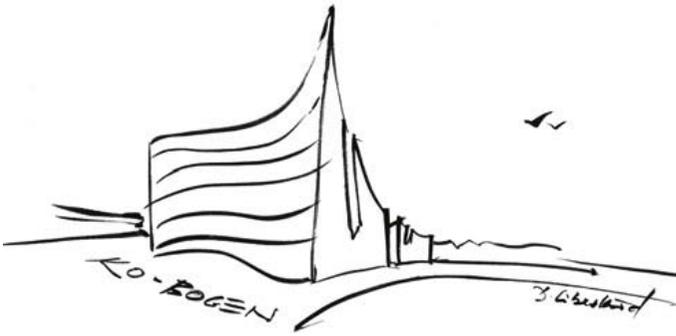
E. Breuninger GmbH

to believe that this is a single building. In this structure, not only the depth and length of the lamellas varies, but also the rhythmically staggered, and towards the top the increasingly tapered way they are configured. After a slanting cut, however, there is another interruption, as if a curtain were being pushed aside. Only a few meters further west Libeskind uses glass and travertine again, though here though structured horizontally. The urban interpretation of the side overlooking “Hofgarten” park makes the six-stories legible, though individual displaced elements disrupt the orderliness, preventing it from becoming all too classical. The system behind these façades means the ground-floor stores’ display windows can be large and open and follow the façade, which curves back and forward several times, as far as the “Hofgartenpassage”, where a two-story bridge links the two buildings at a height of 16 meters. At the adjoining corner of “Haus Hofgarten”, where the entrance to the four-story luxury

department store is located, the interplay between the two different façades is repeated, although here the travertine and glass ribbons extend as far as the promenade. Without it being apparent on the outside, on the upper stories used as offices there is a double façade with integrated sun protection, while in the lower section in front of the retail and hospitality outlets a single façade sufficed. The dynamic shape of the building is also present in the up to 18.5-meter deep footprints of the offices on the upper stories, which can be purpose-configured to suit individual usages.

In both buildings the offices surround a three-story deep greened interior courtyard, which is not only a source of natural daylight but also of further greenery in the middle of the building. The stores were fitted out in coordination with the relevant tenants, which without exception fit in with the “Kö”’s reputation as a high-end retail strip. The

The Breuninger department store moved into new premises in the “Kö-Bogen” shopping complex in late 2013.



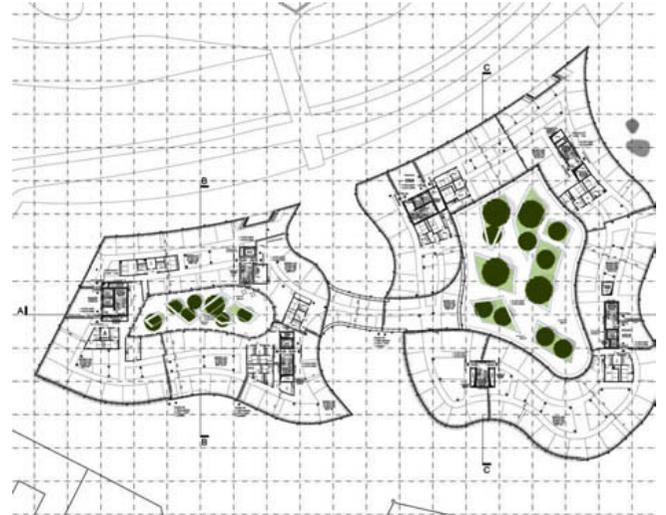
Sketch Studio Daniel Libeskind



View Gustav-Gründgens-Platz



Layout ground floor



Layout 3rd floor

store a California IT firm fitted out is particularly noticeable; it takes the form of a travertine-clad, two-story-high, almost sacred hall across almost the entire depth of “Haus Königsallee”, at the front of which there is a view of “Hofgarten” park.

It may well come as a surprise, but this highly complex urban component is a green building that is striving for LEED Platinum status, the highest certification possible in the American system. It is not only the planted cuts and the green roof that make the “Kö-Bogen” development a green building, but in particular the sustainability of its entire life cycle, from resource-saving construction, the use of renewable energies, flexibility with regard to usage, and local public transport connections, to recyclable building materials. The “Kö-Bogen” development’s major achievement, however, is that it marks a courageous step in moving the city forward.

## Project partners

### Developer

die developer

### Architects

Studio Daniel Libeskind

### Gross floor area

40.165 square meters

### Integrated products by ABB/Busch-Jaeger

future linear 84 touch sensor; UP motion detector (pure stainless steel) and 6131 presence detector



An impressive corona of glittering towers: The Etihad Towers create a hybrid of residential, office, hotel, and conference facilities, and also boast wellness, restaurant, and shopping areas (on the left).

## Glittering corona

If only in terms of its sheer size and the complexity of the different facilities, the Etihad Towers are one of the world's unique buildings. Designed by the Australian firm DBI, the high-rise ensemble in Abu Dhabi is a combination of residential zones, hotels, as well as office, restaurant, conference, and shopping areas. The KNX building automation technology integrated into it successfully meets the developer's high standards with regard to architecture and comfort.

Text **Christian Breusing** Photos **DBI Design**

Sprouting up like palm trees out of the desert sand, there is any number of this type of high-rise tower in the economically prospering countries in the Middle East. They are frequently singular structures that hardly relate to the urban design of their surroundings. Consequently it is difficult to talk of "cities" in the European sense; instead, these are aggregations of structures, which like a constellation of stars, conglomerate to form clusters. From afar they make for an impressive skyline or panorama. Comprising a total of five high-rises, Etihad Towers in Abu Dhabi form one such high-rise cluster. In an international competition in 2005 the architects at DBI Design held their own against a phalanx of firms of worldwide standing and subsequently landed their first major international contract, which also embraced the interior design and landscaping: "In terms of design the Etihad Towers high-rise ensemble is extremely sculptural," says Warren Coyle, the firm's managing director. "The investor wanted an iconic style and a landmark with corresponding urban design significance for Abu Dhabi. Our proposals derive closely from that brief."

### **Traditional sabers and mother of pearl**

The total construction bill for the exclusive project near the chic corniche in the elegant district of Al Ras Al Akhdar and opposite the famous Emirates Palace Hotel came to USD 1 billion. 2006 saw the start of work on the construction of this impressive corona of glittering towers with a gross surface area of 500,000 square meters spread over 54 to 75 stories that reach a height of up to 300 meters. This puts the towers in a prestigious "super-tall tower project" category. They form a structural and functional hybrid of residential, hotel, office, conference, wellness, restaurant and shopping facilities. The shape of the curved towers is derived from the billowing sails of Arabian dhows and the curve of the blade of the traditional Arabian saber. The slender reflecting facades are also reminiscent of the mother of pearl from the Persian Gulf.

In order for the high-rise ensemble to present a uniform picture, covering a total area of 135,000 square meters the double facades alternate in color between blue and silver glass. Combined with the individual high-rises, which in terms of their footprint are each positioned at an angle to



one another, the vertical elegance achieved this way creates a sparkling, if not even “dancing” cluster. Each of the towers boasts an unhindered view of the sea. On the side overlooking the sea the Etihad Towers also boast a closed, five-story podium that links three of the towers with one another. Four basement car parking garage levels provide 3,200 parking spaces, with above them, among other things, the hotel lobby, conference center and the 6,500 square meter shopping arcade.

#### **Classically opulent luxury**

Three of the towers are reserved exclusively for residential purposes. They have a total of 884 apartments and luxury penthouses with up to five bedrooms. A further tower is dedicated for office use. Spread over more than 48 stories there are 46,000 square meters of leasable office space which can be fitted out individually. Rounding out the architectural design, the 581-room hotel tower offers optimum comfort. The five-star hotel has 382 rooms and 199 serviced apartments and is operated by the Jumeirah Group, which also runs the world-famous Burj Al Arab

Hotel. The lobby, with 15-meter-high ceilings and a prime view of the Gulf, the conference centers and the ballroom which can accommodate 2,200 guests, stand out both for their timelessly functional design as well as their “classically opulent” luxury, which comes into its own in the wide range of materials, finishes, and design objects. By way of example, the interior designers chose hand-picked large natural stone tiles for the walls and floors. Elaborate hand-woven carpets add an exotic touch. These custom-produced objects boast finishes made up of abstract patterns combined with decorative traditional elements of the country. The elegant, timeless furnishings by renowned Italian designers fit in with the luxurious surroundings. Architecture, light, and materials form a symbiotic relationship here that aims to produce special effects. In terms of interior design, the sequences of rooms feature different themes. The spacious, high entrance hall provides access to a number of very different and, in comparison with the classic elegance of the lobby, totally “dramatic” pre-function spaces, which in turn lead to the actual conference halls and event rooms. The range of materi-

A sequence of pre-function spaces with very different themes dominates the interior of the Etihad Towers. Classically opulent luxury is combined with KNX technology, which provides comfort and energy efficiency.



als and forms is also highlighted by means of carefully coordinated lighting, which creating by day a warm welcoming, and in the evening and at night a glittering atmosphere.

“Be unique” is the DBI Interior Design credo, an approach that applies just as much to the technical fittings, which for guests and hotel staff alike largely rely on user-friendly KNX technology. In every respect the wishes and standards of both the developer and the operator required control of the building services to be economical and straightforward for guests, room service, the workforce, and engineers. Furthermore, this had to be integrated in the property and building management system using an open protocol. So as to achieve the greatest possible energy efficiency, instead of a keycard switch a sensor detects the guest’s presence in the hotel room. Depending on the room occupancy, the KNX system switches between energy-saving and comfort mode. Corridors, cellars, storerooms, elevators and parking spaces are controlled by means of a lighting system with an easy-to-operate user interface. The

KNX system provides information at all times about the energy consumed for every load output, and calculates the bulbs’ burning time.

#### **High cost effectiveness**

The KNX solution was used because the client demanded cutting-edge technical fittings that could be adapted to the architectural and functional concept in a way that was as elegant as it was effective. The system also offers intuitive access to all room functions in connection with a basis for future advances that is independent of the manufacturer. Ultramodern technologies unconditionally fulfill low-energy, i.e., sustainable standards, and as such with all construction projects energy saving and cost effectiveness are of the utmost priority. In comparison with traditional guest room management systems (GRMS), using KNX technology can achieve savings of up to 30 percent. These can be achieved, for example, by regulating the ambient temperature, controlling the lighting, and shading. The switching on and off and the dimming of different light scenarios, presence control, shutter and blind





Like scenes from A Thousand and One Nights: The size of the Etihad Towers and their highly exclusive facilities make the towers a unique construction project worldwide.

control, electrical circuit monitoring, complex logic links, time controlling and visualization via PC are some of the comforts of a KNX system. As soon as a guest checks in at Reception his room is set to comfort mode, which results in the temperature set point and the fan speed of the air conditioning devices being adapted.

The size of Etihad Towers and the complexity of the different facilities, from parking management to the 12 exclusive restaurants throughout the complex, the Talise Spa, and two other fitness centers, make the towers a construction project the likes of which the world has never seen before. It is as if the KNX technology had been made specifically to meet the high architectural and comfort standards.

## Project partners

### Developer

Sheikh Suroor Projects Department (S.S.P.D.)

### Architects

DBI Design

### Surface area / Elements

approx. 46,000 square meters of office space in the office tower

885 apartments, spread over three towers

6,500 square meters of international boutique space

581 apartments in the Jumeirah and Etihad Hotel Tower

### Integrated products from ABB

KNX system



BIG

## All under one roof

Very different solutions for integrating several facilities in a single building sheath: A New York studio goes skyward, in the Chinese city of Taichung a park is an important conceptual element – and the London firm Orproject reinterprets a Buckminster Fuller vision.

### **BIG: Amager Resource Center, Copenhagen, Denmark**

Given its cool climate, the Danish capital Copenhagen would actually be a suitable place for skiing, but instead of mountains there are gentle hills and flat groups of islands. For this reason BIG (Bjarke Ingels Group) is trying its hand at designing an Alpine slope: The 40-year old Amagerforbrænding waste incineration plant was intended to make way for an ultramodern works installation that also doubles up as a skiing area. The island of Amager currently has industrial buildings on the one hand, and residential complexes on the other, which strung together in isolation fail to relate in any way to one another. The new power station and leisure center would be a landmark that would create a coherent whole, thereby making it more attractive for residents and visitors. From the outside the tapering, spiral-shaped carcass, which widens gently towards the ground, would be a landmark. A fine mesh and greenery together structure the two-dimensional elevation of the facade. The way the roof is divided up into dynamically shaped serpentine is particularly charming. Three classic ski runs, which thanks to a special coating can be used in summer as well, lead downhill. One level leads directly to the black run. There is an elevator to the roof. During the descent there is a spectacular view inside the power station. On the inside waste is turned into electricity and district heating. The enormous circumference of the chimney is an indication of the large amount of pollutants that incineration causes; for every ton of CO<sub>2</sub> produced it churns out a 30-meter wide ring of smoke, which hangs in the air like a warning signal, confronting the public with the side effects of growth and consumerism.

**REX: Equator Tower, Kuala Lumpur, Malaysia**

An idea by the New York firm of architects REX envisages a 380-meter high, 80-story edifice being built in Kuala Lumpur, Malaysia. Given the geographical proximity to the equator, at midday the sun is at its highest and the tower is subjected to intense sunshine. The architects responded with an original design solution. They developed sun shields that extend across the entire structure, thus defining its shape. Beneath the sun protection, the straight contour of the tower is only interrupted by slender, projecting girders. From these attractively highlighted levels, the PTFE (polytetrafluoroethylene)-coated shields are positioned at an angle to the stories in the middle of them. This gives the impression of the structure being tied up trussed like a corset. For this reason, from the outside the design is reminiscent of an abstract, purist version of an Asian pagoda. The outer skin of the shields is silver to repel the sun's rays, ensuring a pleasant ambiance on the inside. The sun protection's 85-percent opacity also plays a major role in preventing glare. From the inside one looks out on fiber glass-reinforced fabric panels. From the flexible office space, which is complemented by an auditorium, restaurants and bars, business clubs, and small shops, there is a sensational panoramic view of the cityscape. The 4.20-meter-wide solar protection panels can be regulated individually. At night the veil is completely retracted, revealing the slender, elegant looking tower. In the twilight the silhouette of the transformed structure shines like a jewel in the Kuala Lumpur skyline.





**OMA: Bryghusgrunden, Copenhagen**

In Copenhagen Docks the former Bryghusgrunden brewery site is the last central plot of land by the water. It served the OMA architects as the basis for the design for the “Bryghusprojektet”. Together with OMA’s project partner Ellen van Loon, Rem Koolhaas developed the idea of a hybrid complex that links the historical waterfront with the culturally rich district of Slotsholmen, and thus acts as an intermediary between the different locations. To this end the state-of-the-art building with its consistently orthogonal design and the different-size cuboids form a new hub. The contrast with neighboring historical and listed buildings such as Christiansborg Palace and the old brewery is deliberate. Transparent facades and the random order of the elements makes for a flowing transition between outdoor and indoor areas. Roofs create interim zones to the urban surroundings. A main road leads directly through the structure, which opens out on all sides (in some sections it is greenish, in others neutral in color), thus becoming integrated in city life. In the vein of a typical Rem Koolhaas design, with this project a labyrinthine, collage-like building structure again sets the tone. The development consists of displaced elements, which create complex, urban pathways on tiered levels. The premises of the new architecture center are located in the middle of the structure, which also features surrounding restaurants, shops, and private residential sections. The spacious entrances to the various facilities are aligned in the direction of the Christians Brygge waterfront road. In some places the waterfront runs flush with the facade or features man-made walkways.



Sane architecture

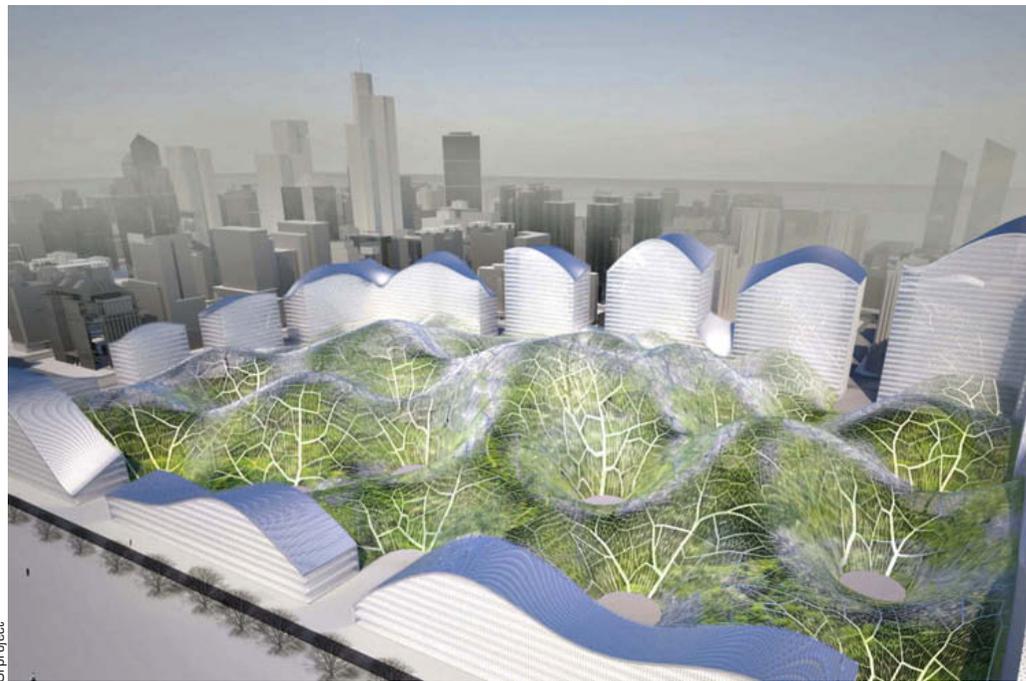
**Sane architecture: Taichung City Cultural Center**

The competition brief called for a complex urban space in the Chinese city of Taichung that would comprise a museum, library, and park in a single building complex, and would in addition take the city’s climatic and cultural circumstances into account. The proposal by the French studio Sane architecture synergistically brings together art, education, and recreation and was nominated for the 2014 MIPIM Award in the Cultural category. The firm came up with the idea for a hybrid structure with beam-shaped, projecting structures. On the ground floor the museum (which is famous throughout China) and the municipal library will be brought together by a large lobby, which is also intended to be used as additional exhibition space. Here the park extends as far as the interior, as in places stretches of lawn are integrated in the floor of the lobby. Greened roofs and a transparent structure form important pillars of the sustainable construction concept. The unconventional wind turbine, which by means of vertical funnels in the facade converts wind into energy, will impact positively on the exemplary energy balance.

### Orproject: Bubbles

Growing mega-cities are increasingly struggling with extreme air pollution in the form of smog. The London firm of architects Orproject has offices in New Delhi and Beijing and as such experiences the ecological problem on its doorstep day in day out. As a solution for the cities under threat, the architects are developing “Bubbles”, large self-sufficient protective sheaths intended to provide an airtight refuge for the inhabitants. A mesh-like transparent roof system would cover the parks at the heart of the city, where flowers from all climatic zones could be planted. In terms of its formal language the roof adapts to the surroundings and is reminiscent of fragile, hovering soap bubbles. The air in them is intended to a large extent be able to be controlled independently of the surrounding big city. A geothermal heat exchanger system regulates the temperature and humidity and is monitored throughout the year. As long ago as the 1960s, Buckminster Fuller pioneered this approach, tabling designs for a dome over New York. His solution, however, was only conceptual and unfeasible. Together with specialist planners and scientists, Orproject, on the other hand, have created a curved lightweight structural system so as to achieve particularly wide spans. The researchers arrived at the structural solution by analyzing veins in leaves and butterfly wings during the development stage. Photovoltaic cells integrated in the roof technology provide the electricity, which is also sufficient for the buildings adjoining on all sides. These are connected to the optimized ventilation system and benefit from the clean air.

The flexible design enables it to be individually adapted to the relevant circumstances. Integrating playgrounds and schoolyards in the urban bubble would also be conceivable.



# “This is city life: hybrid”

The Dutch architect, theorist and urban planner Wiel Arets explores new building forms in great detail. Many of his designs are correspondingly innovative and unusual. In conversation with pulse, he calls for a plea for hybrid buildings that boast several features at one and the same time and stand out for their adaptability. Arets explains current projects such as the new Allianz HQ in Zurich, a building he compares with a “horizontal and vertical landscape”.

Interview **Lasse Ole Hempel** Photos **Jan Bitter**

Wiel Arets is known for being a gifted speaker, capable of entertaining and captivating audiences all over the world. Together with famous architects such as Rem Koolhaas, the Dutchman, who was born in 1955, is among those responsible for the post-modern renewal in international building culture. Originally founded in Amsterdam, Wiel Arets Architects now also has branch offices in Maastricht and Zurich. The prize-winning studio is currently nominated for the German Design Award for two projects.

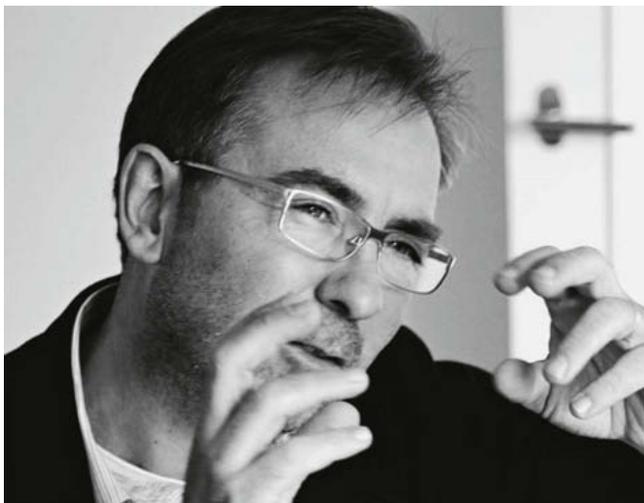
**You are renowned for your hybrid design solutions. Which criterion comes first for you when planning a hybrid building?**

I'm very much interested in the idea that buildings are developed in a hybrid way, and that the programmatic conditions within them can shift over the years. I think you have to overdimension spaces, and not make the ceiling too low, for instance. This allows the possibility of using a building's spaces for different programmatic conditions in its future. I feel every building should be developed in such a way.

**Many do not invariably regard a multifunctional building that simply stacks different usage areas as a hybrid structure. What do you feel is the key quality of a hybrid building?**

The Euroborg Stadium in Groningen, for example, has ten additional programs; a school, cinema, restaurant, parking, apartments, a hotel, a casino, a supermarket, a sports center, a wellness center – there's not a museum there yet, but, why not? I'm really proud that we were able to bring them all in – all these programs are there, and it works. By making the building hybrid in this way, the site is not a place where things happen only every other

In the AvB Tower in The Hague the zone linking individual facilities such as shops, restaurants, offices and libraries extends over five stories (on the right).



Architect, theorist and urban planner Wiel Arets





week, as would be the case with only the stadium. Today there's a 24/7 program happening there. The hotel is occupied during the whole year, for instance. I also think a city should be like that – I think that this is city life: hybrid.

**The Allianz Headquarters recently opened in Zurich. To what extent can we talk here about horizontal and vertical landscapes? How is “interiority” amplified by a hyper-hybrid programming?**

This particular building is fully composed of horizontal and vertical landscapes; the employees of this office are able to traverse the entire building without entering its core. This path of movement – this zig-zag back and forth and up and down; this contributes to interiority, through the spontaneous confrontations that such a circulation path creates.

**One idea that might be called hybrid is the possibility to convert the apartments of B' Tower in Rotterdam into cooperative housing. Which architectural devices did you use to realize this?**

The B' Tower is hybrid due to its programming, and its apartments can be converted to cooperative housing in the future, though this is mainly possible through the generous size of the apartments. They are now being

rented as fully furnished, meaning that the condition they are now in will remain unchanged until such a conversion is undertaken. They are therefore flexible units of living; housing is the type of program that is most easily converted to other programs of space.

**The AvB Tower in The Hague is a hybrid programming of shops, lobby, restaurant, offices, lecture hall and library. How did you link these themes? What advantages can be seen for the students who live and study in this new university type?**

These diverse programmatic components are connected to one another via the immense void that spears through the building's first five floors. The advantage of this combination of programs is that most of the academic needs of these students can be met without their leaving the building—which of course will occur; yet in principle this building is a self-sustaining university environment, for both students and faculty.

**What role can hybrid architecture play in the course of creating ever more dense use of urban spaces?**

I believe that we need to think about the following aspects: how people move, how things are delivered, how

In the near future the apartments in B' Tower can be transformed into communal residential space (above). Networked university: Lecture theater in the AvB Tower in The Hague (on the right).



programs of living, production, leisure, and culture mesh in this hybrid building, and how that same building's section is structured. When these work, then, in my opinion, the building will be a good building. And, so, is it also beautiful? Yes. For me, beauty is a very interesting word to combine with the word hybrid; hybrid is beautiful.

**Is it a coincidence that many hybrid designs have arisen in the Netherlands?**

I am often asked why the Netherlands has so much good architecture. But the question is: Does the Netherlands have so much good architecture. On one hand you could say that the Netherlands has embraced modernity and modernism; in this way, many of the buildings built in the country have a certain hybridness to them.

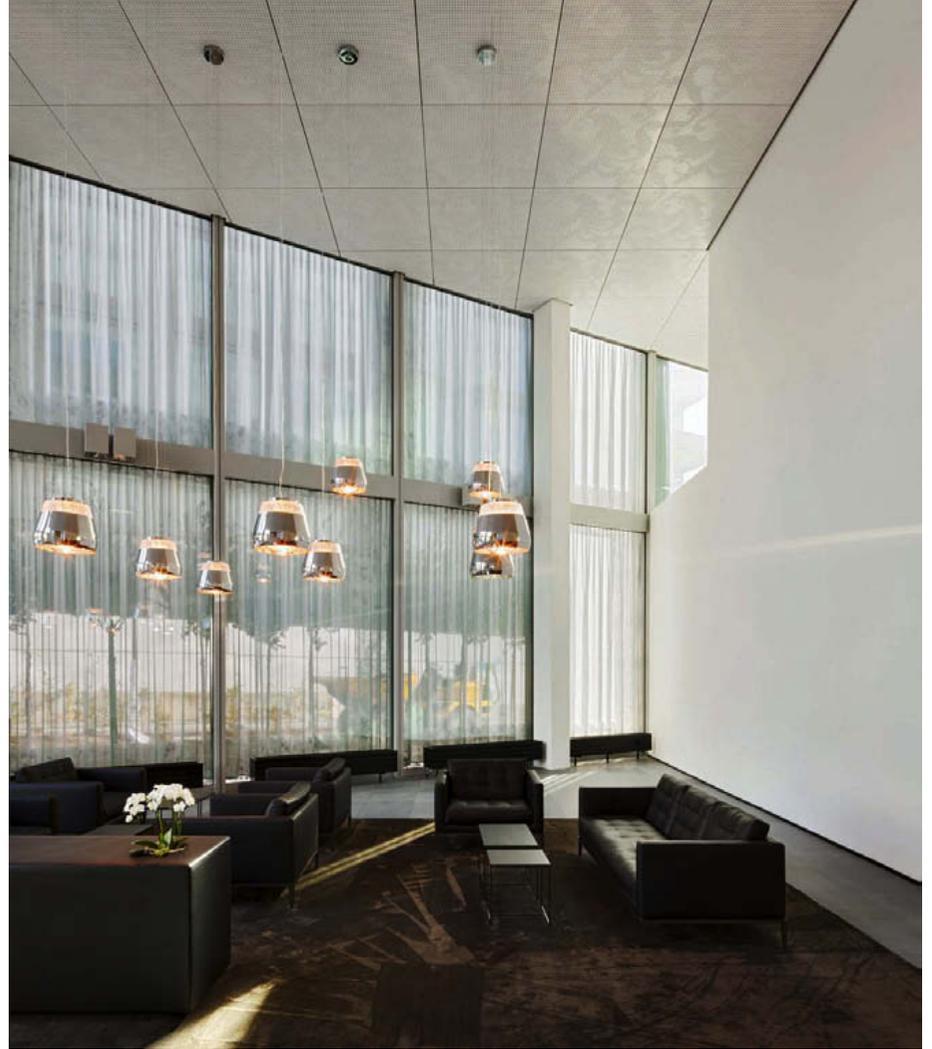
**Usually, the focus is on spatial hybrids. How realistic is it that in the future we may see temporary and flexibly usable premises? If, for example, an office space morphs into a dance studio each evening?**

I never believed in the master plan. It is very old fashioned, and is totally inflexible. When you have an idea one day, the idea changes the next day. In the near future, we will have new buildings and invent new programs. For

example, six years ago someone asked me to go to Tokyo because there was something new – a new building type. You go in the building and show your credit card. It looked like a shop; there was some food, and DVDs, and then there were cabins as well. It is not a hotel, it is not a shop – it was a hybrid condition where you could stay and sleep or rest, watch a movie, or eat. I asked what they called it, and they said it had no name. They had invented a new type, and the worst part for architects was that it had no shape. It had a very clever routing and movement sequence, but no shape. But, as an architect, what interested me was that I felt comfortable there – being in this new type with no shape. These new infrastructural devices are coming, and I believe infrastructure will be the source of many of the new building types.

**How close is the idea of sustainability bound up with the issue of hybrid structures and how realistic is it that we will see a more sparing use of resources in this context?**

Hybrid buildings are sustainable buildings. When a building is forced to morph, undulate, and re-delegate its spaces so that it continually adapts – that's hybrid. And when a building is hybrid, it has already anticipated these fluctuating conditions before it was even built; these con-



ditions are built into its design. When such anticipation occurs, it's inevitable that energy-saving solutions and systems are part of the building's whole.

#### What significance does building automation have for hybrid buildings?

As can be seen in Mies van der Rohe's Villa Tugendhat House in Brno, in the Czech Republic, technology – in the sense that we think of it today – was in its infancy in architecture at the start of the 20th century. Yet since that house was completed, in 1930, technology has progressed at a rapid rate. As technology continues to be integrated into architecture, and as buildings continue their march toward a more pervasive state of hybridness, automation will become more prevalent. What will become automated is the ways in which today's technologies – heating, cooling, lighting, waste, etc. – will be controlled by humans within buildings; technology will predict and control environments for us, at our will – we will further enmesh and contextualize with our buildings so that they anticipate us, and not only shelter us.

## Project data

### **B' Tower, Rotterdam**

Typology: Housing, retail  
 Size: 15,000 square meters  
 Date of completion: 2013

### **AvB Tower, The Hague**

Typology: Housing, school  
 Size: 24,000 square meters  
 Date of completion: 2013

### **Allianz Headquarters**

Typology: Office  
 Size: 72,000 square meters  
 Date of completion: 2014

The charm of the natural stone facade of the Allianz HQ in Zurich is enhanced by the interplay with the aluminum-coated curtains.



# Textile

Old and new are impressively combined in the reopened King Fahd National Library in Riyadh: Textile sunshade awnings cloak the façade of the new building.

Answers from **Prof. Eckhard Gerber, Gerber Architekten**

## **What was the thought behind giving the King Fahad National Library a textile façade?**

The new building is meant to exude transparency and for this reason has a wrap-around glass façade. The textile façade serves as permanent sunshade for the building. The textile sails, which are inserted in the steel cable structure in front of the glass façade, prevent the rays of the sun from penetrating the building at an oblique angle. They also enable a continued view inside and out.

## **What impact do the textile awnings have on the interior?**

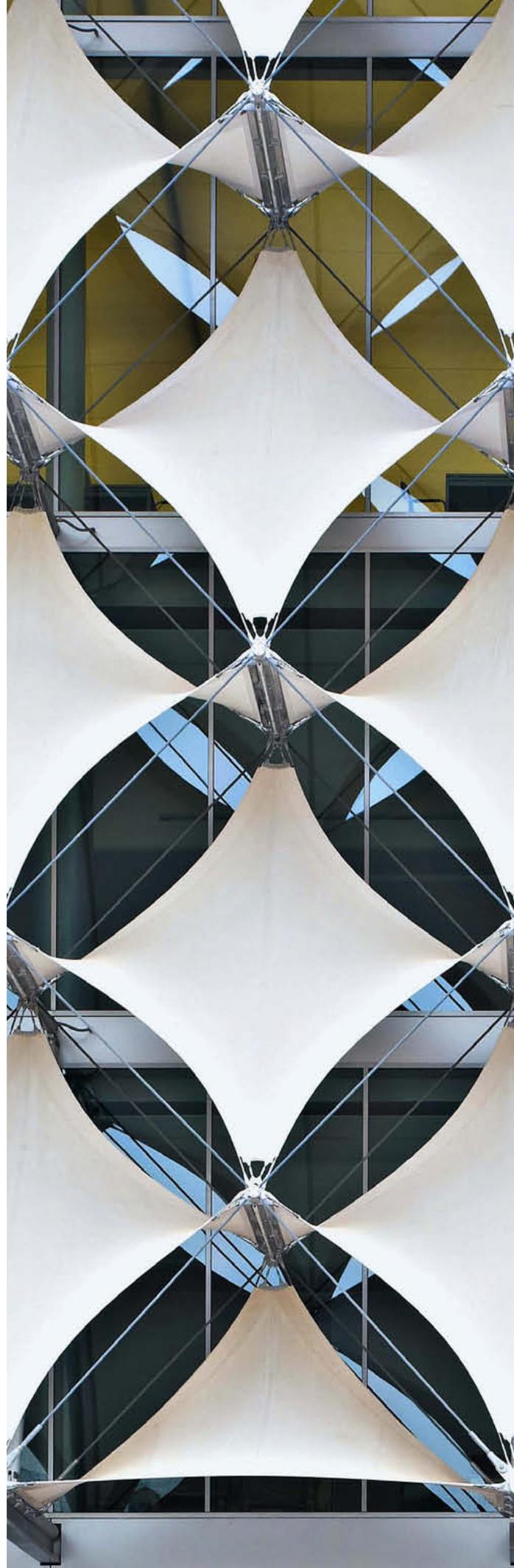
Despite the constant strong sunlight by day the textile awnings provide the interior with glare-free, filtered, slightly subdued natural daylight. Given the high light concentration in Saudi Arabia, this ensures pleasant ambient lighting.

## **What characteristics does a textile for outdoor use need?**

The surface of the textile is coated with Teflon, which means the sails are self-cleaning. Particularly with regard to sand deposits after sand storms this has proved to be necessary and meaningful.

## **Will you be using the material for other projects?**

We use textile materials primarily for indoor and outdoor surfaces pulled taut from ceilings, like for example the Prince Salman Science Oasis and the Olaya Metro Station, both of which are in Riyadh.







## ABB-free@home<sup>®</sup> – uncomplicated access to intelligent living

Our world is becoming more and more digital - computers and smartphones have become an integral part of everyday life. That is also why comfortable home automation is asserting itself more and more in private and office buildings. With a world first, the ABB-free@home<sup>®</sup>, Busch-Jaeger introduced an innovative system at the Light + Building 2014 trade fair in Frankfurt, which enables easy access to the smart home via the use of computer, smartphone or tablet. The special feature: Only minimal costs are involved when compared with conventional electrical installations. Prerequisite for commissioning is the availability of a network or an ad hoc connection via WLAN. Once it is set up, the user can call up the user interface on

the computer, tablet or smartphone and easily change any settings. This functions extremely well with the free ABB-free@home<sup>®</sup> app, which optimizes all data or images for the displays of the mobile devices. Operation is intuitive. Programming of lighting or time programmes for the control of heating or blinds is child's play. And here the innovative home automation can be adapted at all times to the desired use. And, of course, all functions of the ABB-free@home<sup>®</sup> can be accessed via laptop with standard browsers such as Mozilla Firefox or Internet Explorer.

The ABB-free@home<sup>®</sup> control elements are available in models to match the Busch-Jaeger switch ranges future linear<sup>®</sup>,

Comfortable home automation from any location: Once it is set up, the user can call up the user interface of the ABB-free@home® on the computer, tablet or smartphone and easily change any settings. At home the ABB-free@home-Touch serves as the central control unit, making access possible to all functions of the ABB-Welcome door communication system.



The ABB-free@home® control elements – such as the switch rocker and room temperature controller – can be combined with most Busch-Jaeger switch ranges, such as future linear® for example.



Busch-axcent®, carat, solo, Reflex SI and Reflex Duro. This ensures that the quality of the design for the individual styling of one's home is guaranteed. Additional comfort and safety is offered by the ABB-Welcome door communication system, which corresponds ideally with the ABB-free@home®. And the new ABB-free@homeTouch functions as a link between these two systems. It supports the popular comfort features of the ABB-Welcome door communication. All functions can be controlled via the same panel, and ABB-Welcome commands or events can be implemented on the ABB-free@home® bus. And here the setup of a welcome scenario can be especially convenient: The light goes on in the stairwell as soon as the door bell rings. Additionally, pictures of

visitors at the front door can be recorded with the ABB-Welcome outdoor video station. This enables tablet or smartphone with the use of the free app to display who was at the front door while on the road.

With the ABB-free@home® Busch-Jaeger lowers the threshold for access to the world of intelligent living and offers the utmost in comfort, safety and energy efficiency. The result: a new dimension of home automation.

# How many different types of façade did Daniel Libeskind devise for the Köbogen ensemble in Düsseldorf?

*pulse asks a competition question in every new issue. The winners each receive a book. Please email your answer to [info.bje@de.abb.com](mailto:info.bje@de.abb.com)*

# Formidable appearance at the fair Light + Building

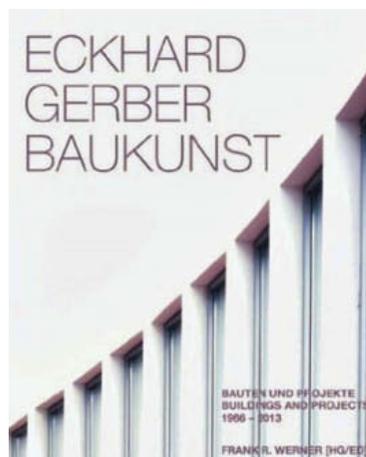
No less than 210,000 visitors flocked to the Light + Building trade fair, which was held between March 30 and April 4, 2014 in Frankfurt/Main.

Busch-Jaeger, a subsidiary of the global ABB corporation, took part, with an exclusive two-storey stand covering a full 1,250 square meters of Hall



8. The ABB-free@home product range attracted great interest: The new generation of smart home and building automation by Busch-Jaeger destined specially for young families and developers who do not want to forgo state-of-the-art comfort at home (see page 40 f.). Another new product: the integrated access control for the elegant stainless steel ABB-Welcome door communication systems. It is available with a pin code keyboard, fingerprint reader, or RFID reader. Now, opening the door will also be possible using any smartphone boasting an NFC chip. In the switch gallery, where the entire range of Busch-Jaeger switch programs were on display, those switches which enable contact-free switching were a real eye-catcher. Busch-Jaeger also presented its new smoke detectors, which feature a restrained, flat design. Friends, clients, and colleagues from all over the world visited the ABB and Busch-Jaeger stand. By way of example, one such enjoyable encounter was meeting up with Frank Krueger again, the successful Creative Director and founding member of the architecture studio logon. He flew in specially from Shanghai in order, like many other creative minds, to familiarize himself with Busch-Jaeger's new products on hand in Frankfurt.

*Katrin Förster, the international contact partner for architects and designers at ABB/Busch-Jaeger, is delighted to receive e-mails: katrin.foerster@de.abb.com*



## The prizes:

All correct answers to the competition question (on the left) will be put into a hat, from which the one lucky winner will receive from

ABB/Busch-Jaeger a copy of the book **Eckhard Gerber. Baukunst** (published by jovis Verlag), the other a copy of the exhibition catalog **Ai Weiwei – Evidence** (Prestel Verlag).

Entry deadline: August 31, 2014.

The winners of the last quiz:

Helmut Keller from 67373 Dudenhofen and Manfred Nierobisch from 46242 Bottrop.

## Preview pulse 2/2014:

### Transformation

pulse issue 2/2014 presents existing buildings that have with great architectural skill been successfully transformed.



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### pulse

Movements in architecture

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