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MOVEMENTS IN ARCHITECTURE

03 | 2013

Office of timber and glass

by Shigeru Ban Architects

Interview with Prof. Dörte Gatermann

Unequal towers – the Federation
Tower complex in Moscow

Rooms for the knowledge worker

ABB



Architects Till Schneider and Michael Schumacher are based in Frankfurt, but also have offices in Vienna, Austria and Tianjin, China.



Since the 1/2012 issue, Pulse has also been available as a free app version for iPhone, iPad or iPod touch. This time the app offers, amongst other things, additional images of Shigeru Ban's spectacular timber construction for the Zurich publisher Tamedia.

The topic: Complex worlds of work

pulse in conversation with schneider+schumacher

Open-plan or single-cell office – merely a matter of taste? Are there tangible arguments for the one or other variant?

In my opinion, it's no longer a matter of an either/or, but of not only/but also. To do justice of working methods today, what counts is the interaction of various different principles for organizing space.

Does the fact that the world of work is in the midst of change (e.g., through digitalization and mobility), invariably alter office architecture, too?

Yes, most definitely. The media we use at work, the increase in complexity, and the resulting need to work together all create new spatial requirements.

The issue of communications seems central to office architecture today. What role can the architect play here?

Good working areas offer each individual an opportunity to either withdraw to concentrate quietly or zones where there can be plenty of communication. Today, it's less a matter of meeting rooms where things tend to happen behind closed doors, and more of complex spaces that are exceptionally discerning in architectural terms.

In 2008, photos from the inner world of the Google head office caused a real furor. Are play and recreation zones in office buildings merely modish or a clear trend?

The division between work and leisure time is definitely in flux. We essentially are always at work, and yet are not. This is reflected in trends such as those at Google. In part I find it affected and short-lived.

What does an office worker need most today?

A credible, nice, friendly working ambience, a good cup of coffee and work that is meaningful as a whole.

What role do status symbols play in the corporate view? Are many firms still hell-bent on building as far into the sky as possible or are new things becoming the main focus, as with the planned Apple and Facebook headquarters in Silicon Valley?

In my opinion, companies seek an image that fits them best and concurs with their identity. Of course, the kind of building strongly depends on the location. The headquarters just mentioned in the States are not designed for dense urban spaces. My view is that companies have overall become more aware of the fact that their building needs to make a statement – to clients and to staff. The emphasis is on communication and the related objectives.

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The adidas Laces forms the creative heart of the World of Sports Campus in Herzogenaurach. In the atrium filigree footbridges crisscross, allowing for movement between departments without having to cross one another and, at the same time, promote contact between employees (left).

Making room for the modern knowledge worker

In our knowledge society work seems to be becoming more and more immaterial. Communication is becoming both the medium and currency of office work. What kind of buildings does such work demand? Office spaces should promote communication between employees and stimulate their creativity while simultaneously satisfying the economic criteria of flexibility and efficiency.

By **Angelika Fitz**

“In our society there are few questions that remain so absurd and mysterious as that of what we do when we are working,” says sociologist Dirk Baecker. This applies all the more to office work, which is basically an immaterial and largely invisible form of work. There is no escaping the fact that most people spend a large percentage of their waking hours working, and therefore at their workplaces. In our knowledge society, it is increasingly the case that these are no longer workshops and production halls, but offices. What are the requirements of these workplaces and in what ways can architecture meet them?

Rational and flexible

For a long time, building offices was thought to be prosaic architectural work. In classical modern architecture offices became, alongside factories, the archetypal rational job. The economic considerations used in factory work were also adopted for the organization of the new types of office building. In a 1922 study, Ludwig Mies van der Rohe worked on a solution aimed at guaranteeing the greatest possible effectiveness combined with the fewest possible resources. For him, the most appropriate division of workstations resulted in a room length of 16 meters. For purposes of better organization, the shelving was placed on the outer walls, meaning that the ribbon windows only started at a height of two meters.

In the 1950s, the rationality of commercial office blocks became the trademark of US architecture. Finely modulated grids underscored the flexibility of these buildings, from the façade to the interior. For the Inland Steel Building in Chicago (1958) Skidmore Owings and Merrill (SOM) located the service core on the outside so as to allow for entire stories of open offices. The development of an unprecedentedly narrow steel girder width by Inland Steel was a breakthrough which both allowed space to be maximized and earned the company a name. For many years, flexibility was to become the prime objective of office architecture.

However, reducing office buildings to function parameters does not take all requirements into consideration. At an early stage, developers and architects realized that office buildings have the capacity to contribute a great deal to the identity of both companies and employees. During the economic boom of the 1960s office blocks became new landmarks, impossible to overlook by virtue of their iconic shapes and dimensions – buildings such as the Dreischeibenhaus in Düsseldorf and the Pan Am Building in New York. The latter bolstered its star status by featuring in movies and computer games. Even after a change in tenants the name stuck.

At the same time, inside office buildings the search for the most efficient use of space continued, leading to the tri-



Trilux GmbH / Christoph Meinschäfer

umph of the open-plan office. Even today, this solution is more popular with many controllers than it is with employees. Not only everyday working life but also a number of movies have shaped the office worker's dream of his own office as the ultimate step on the career ladder. Many employees still find the move from a cellular office to an open-plan situation as a form of demotion: "I have never worked in an open-plan office before. It is something new and not exactly easy in many respects. The fact that you are aware of what's going on around you is a pro of course but in some situations you are simply too aware of things," reported a staffer at Patrizia AG in Augsburg. Open workplaces demonstrably promote communication within a company. However, in order to allow staff to experience this positive effect intelligent architectural measures are necessary – from acoustics to individual niches to which people can retreat. At Patrizia AG this function is performed by enclosed porches placed in front of every open-plan office by architects, kadawittfeldarchitektur.

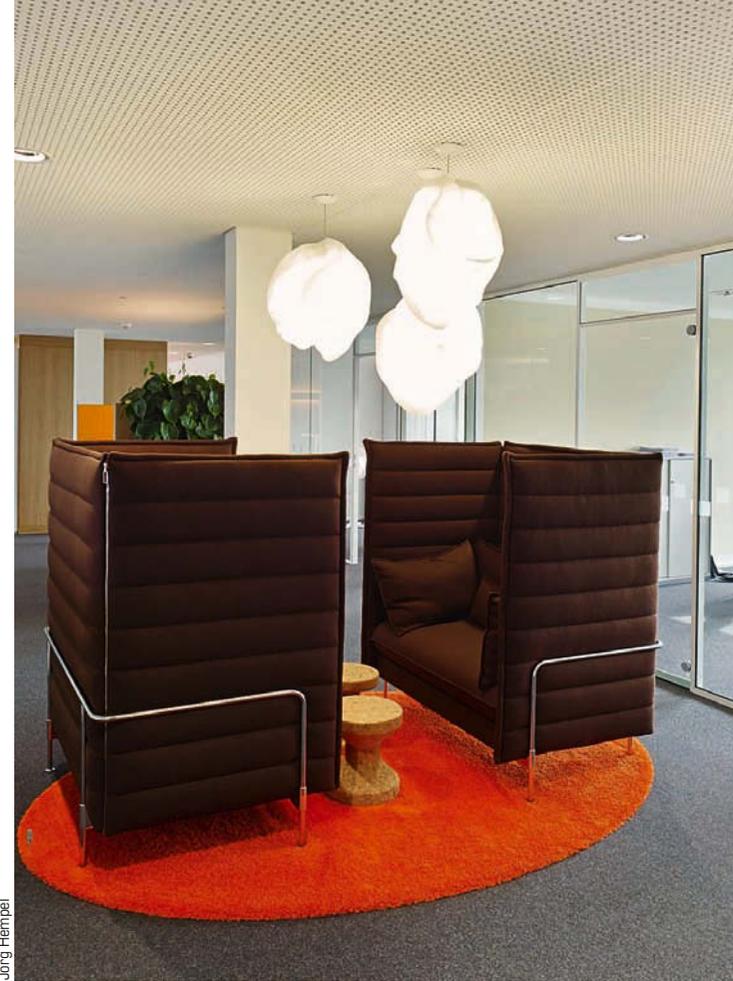
Back in the 1960s the Quickborn Team aimed at better adapting open-plan offices to the requirements of the people in them with its concept of the "office landscape". A highly varied use of space had the goal of boosting the opportunities of networking and avoiding monotony. Taking a similar approach for an administrative building, Centraal Beheer in Apeldoorn, the Netherlands (1972), Herman

Hertzberger combined standardized modules to create a varied landscape with the interior becoming an urban situation in which employees could keep their own personal favorite items. The company wanted its staff, its greatest assets, to feel at home. While in many companies it remains a matter of debate as to whether personal effects are compatible with working life or not and if so, to what extent, staff at Centraal Beheer are being invited to make themselves feel at home on "their" premises.

Work nomads

Another question that had long since sprung up beside that of how homelike an office should be is: To what extent does office work permeate all areas of our lives? The intertwining of work and life has become everyday reality for modern office workers. Smartphones and laptops have transformed cafés, hotels and living rooms into workplaces. So does that mean that office buildings will soon be superfluous? The fact is that desks often stand empty because the employees in question are floating about somewhere in the building or are out of the office. The concept of desk-sharing cuts the number of workstations required. As well as optimizing space the idea is also aimed at more efficient and more flexible working by preventing the very phenomenon of a homelike office environment. But even the new digital bohemia, with its improvised home and coffeehouse offices,

Tomorrow's working worlds: At the new Fraunhofer Institute for Work Research in Stuttgart designed by UNStudio, expansive lounge areas encourage the informal exchange of information (top). schneider+schumacher envisaged zones reserved solely for communication for Hamburg office building Plan B, which was commissioned in 2013 (right).



Jörg Hempel

is becoming unsatisfactory in the long run, and so is organizing itself into co-working areas. And it is not uncommon for these spaces with their mixture of living-room atmosphere and professional infrastructure, to become a platform for new ideas. Particularly innovative companies in the digital world have recognized that mobility and a flexible approach function better when the spatial quality and importance of docking stations at headquarters are improved. The more mobile working and desk-sharing come to replace fixed workstations and the more precarious permanent contracts become, the more importance will be placed on jointly used spaces. With this in mind, the meeting zones and places of retreat in Google's global branches are now becoming atmospherically charged. In 2008, architecture firm Camenzind Evolution, created playfully themed landscapes for Google, reminiscent of an amusement park. These have now taken over what used to be private spaces, and are intended to keep thought processes flexible. Nowadays, even banks are following this trend. ANZ Bank's new headquarters in Melbourne (2010) were designed by architecture studio Hassell as a giant play area.

Communications routes

"You walk and walk and walk," is how one of the employees describes her day-to-day work at the adidas Laces, the latest addition to the adidas "World of Sports" campus in Herzoge-

naurach. The thinking behind this setting is by no means limited to enhancing fitness; it is primarily meant as a way of promoting informal communication. For the adidas Laces (2011), kadawittfeldarchitektur bridged a giant central atrium with a network of footbridges that could have been designed by Piranesi. This form of access allows for free movement between departments while stimulating visual contact between the teams and creating a large number of different communal zones at the docking stations. The fact that the atrium's climate feeds off the residual warmth and coolness from the offices provides further justification for such a luxurious spatial extension.

Caramel Architekten has also created an atrium as a communicative center, this time at the Science Park (2012) in Linz, Upper Austria. The objective in building the Science Park in the direct vicinity of the Johannes Kepler University campus was to bring business and research closer together and to attract research capacities to Linz. Accordingly, in order to foster a contemporary scientific working environment, particular attention was paid to creating open areas that promote the exchange of information. The generously glazed atria connect the different stories, allow light to penetrate right down to the lower levels and create communicative spaces.

kadawittfeldarchitektur has concentrated communications even more radically at the Aachen Münchener insurance



Peter Wümmli

company's new headquarters (2010). A wide boulevard has replaced connecting corridors on each level between the four sections of the building. Taking the form of a central internal "street", it significantly increases the probability of a chance meeting between staff members from different departments. In its niches and on its squares it offers all kinds of "we spaces", from club-style lounges to meeting rooms, their transparency located right in the thick of things. This central access road has become its own town and living room: "I emerge from the parking garage in the mornings, glance at the cafeteria and am amazed at how many people just do not breakfast at home. There is a running joke that if there were showers people would even shower here," reports one employee.

Introducing the campus concept to the bank: ANZ Bank's new headquarters in Melbourne designed by the architects at Hassell take the form of a highly varied, colorful office landscape which reinterprets the open-space concept (right).



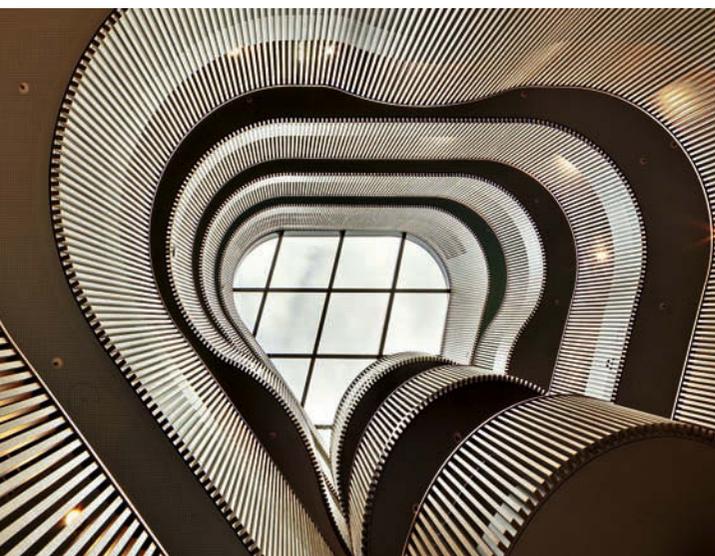
Jan Bitzer

The city at the office

At Aachen Münchener it is not only the internal communications spaces that have an urban feel to them; the city itself is expected to interact with the building. By spreading themselves out over several buildings, the insurance company headquarters are maintaining contact with the city. The result: all kinds of different interlinking and crossover effects and points of visual contact. The architecture of the Rothschild Bank's new headquarters in London (2011) also offers something to passers by. The relevant concept by OMA opens up a view of an architectural jewel by Christopher Wren which has been hidden away since the 18th century.

It is impossible to ignore the fact that the flexibility of our working worlds is accompanied by new requirements as regards the shaping of identity. It is less than ever the case that the office can be reduced to purely functional parameters. If, in the knowledge society, creativity and self-management are replacing purely hierarchical chains of command, if we want trust to replace control, the spaces we use need to radiate a new familiarity. If the boundaries between leisure activities and work become blurred, everyday life in the office must embrace this reconcilability. If work processes change more quickly places of work must keep pace with these dynamics and, at the same time, offer support. We need to react to these requirements for flexibility not only in management and in the way our offices are fitted out but also by using architectural strategies. However these examples also make it clear that architecture is not only responding to the transformation in the office, but also making its own contributions to these changes.

The standards set by the playfully themed landscapes dreamt up in 2008 for Google Zurich by Camenzind are still valid today (above). The new building for the Hamburg authorities for urban planning and the environment was completed just in time for the 2013 IBA in Hamburg. Here too, the architects, Sauerbruch Hutton, came up with an unusual color concept that facilitates the identification of the individual building components while at the same time providing orientation for users.



Jan Bitzer

Angelika Fitz works in Vienna as a curator and author. In 2012 she collaborated with kadawittfeldarchitektur to produce a publication, "Arbeitende Orte. Bürobauten mit Wert und Mehrwert" (Working places. Office buildings with value and added value), Springer, Vienna & New York. Among other things, the users of office buildings have a chance to speak at length.



A temporary home for modern business nomads

Michael O. Schmutzer came up with the concept of the Design Office as a means of offering modern, mobile workers a temporary office as well as attractive meeting rooms for offices. The flexible office spaces can currently be found in three of the largest German cities, and next year three new locations are set to open. In *pulse*, Schmutzer describes his approach and highlights how design can inspire company success.

Text **Michael O. Schmutzer** Photos **Design Offices**

Smartphone, tablet, notebook. An office wherever you are. Whenever we are online, we are working. Our working day is a constant flow of emails, telephone calls and telephone conferences, which we negotiate with a take-away coffee in one hand and a high-tech communication device in the other as we drift through airports and railway stations.

In 2008, sometime in the morning on a flight from Nuremberg to Berlin or Frankfurt to Zurich, I asked myself whether, in spite of all the advantages of flexible working, there might be an argument for building one, or even better several, workspaces, as a sort of temporary home for business nomads such as myself. While I was still on the flight, an initial idea was forming of a place that would be as real as it was flexible, that would meet the needs of mobile, flexible working whilst offering a premium address for a newly defined office concept.

Tailormade, flexible work environments

“More pleasant working and better meetings” was the guiding principle of an architectural and communicative concept. In essence, the vision was very simple: offering locations where people could once again meet in person

in a carefully considered work environment. Always driven by the ambition that an office environment for discerning mobile workers naturally had to boast sophisticated design.

As a real estate and marketing specialist, my own experience had taught me what business colleagues actually needed: tailor-made work environments with flexible office infrastructure, ideally available for renting on a temporary hourly, daily, weekly or monthly basis. On the one hand, perfect offices for the modern working day, on the other, intelligent meeting and workshop spaces for productive teamwork, and inspiring environments for events and conferences. Added to this, service on demand as well, of course, as a booking procedure which could be completed via smartphone, tablet or notebook.

The idea of combining modern offices with sophisticated design inspired the name of the company “Design Offices”, which is responsible for scheduling the individual locations of the new office and meeting environments. After all, as much as we may rejoice in the flexibility of the brave new world of work, it does have its down-

A location that is designed to be real and flexible in equal measure – the “Meet and Move” office solution from Design Offices in Munich’s “Arnulfpark” (right).



DESIGN OFFICES



sides, of which every mobile worker is no doubt well aware. The demands placed on modern work today require flexibility and adaptability from the individual and from the company. Working with changing locations and hours, and remaining permanently contactable this new style of work has raised concern amongst academics and work psychologists. Commuting and numerous business trips, or moving the office to the customer's location for the duration of a project have negative effects that take their toll on the worker, both mentally and physically. Only with improved efficiency in all areas, from communication to workspace design, can such demands be met.

Better results through design

Right from the beginning, Design Offices was about design, the individual office environments with the maximum interior-architectural, structural and communicative elements to promote performance and wellbeing. Light, air, acoustics – the best manufacturers of office fittings have become long-term partners. Whether it's acoustic panels, sound-absorbing carpets, a lighting system based on the available daylight or air conditioning tailored to the season, an elaborate system can be put in

place to ensure the environment is conducive to wellbeing. Communal areas and roof terraces, open meeting areas, kitchens or retreat rooms for undisturbed telephone calls or confidential conversations are part and parcel of a carefully considered work-life balance. Regardless of whether it's over a shared meal in the kitchen or at an after-work event, Design Offices represent lively networking hubs.

Here functionality is clearly at the forefront. Thanks to their furnishing with leading design brands, sophisticated acoustic and lighting concepts and cutting-edge IT infrastructure, the Design Offices are made to increase both productivity and enjoyment at work, using the mantra "carefully formulated functioning for better results".

Here, the concept of work environments can basically be divided into two different areas: work and meetings. The area of "work" covers the two "products" Daily Desk/Coworkingspace and Flexible Office. Here companies from industry and the SME segment, freelancers and service providers have the chance to flexibly rent a work-

Furnished with leading designer brands, smart acoustic and lighting concepts: "Living Kitchen" (above) and the "Fireside Lounge" (right).



space or office – if required complete with designer furniture and set up in line with the most up-to-date findings for the work environment of the future. This area also covers the Virtual Office. With this service, even just a business address can be rented. The “meetings” range includes the products Fireside Lounge, Meet and Move, Project Space, Training Room, Board Meeting and Living Kitchen, creating the perfect framework for productive meetings, workshops, training sessions and business events.

The office as an emotional focal point

What will the work environments of the future look like? How will we work together? By their very nature, the pioneering Design Offices should offer answers to questions like this. This applies not only as an end in itself, but as a precept it should naturally also provide optimum economic benefits. Companies and employees can concentrate on their core competencies, and Design Offices offer the necessary infrastructure to bring about new workplace concepts and workspace formats, as well as the corresponding networking to encourage creativity and innovations.

The young company is already represented with its own facilities in Düsseldorf (“Kaiserteich” office block), Munich (“Arnulfpark” and “Highlight Towers”) and Nuremberg (“Am Schoppershof”). Design Offices is currently connected through a platinum partnership with Xing Week: digitally networked via Xing – meeting up in person at Design Offices. In a world in which modern information and communication technologies make office work independent of place and time, the location of the offices gains a new strategic value: as a home base and as an emotional focal point for modern knowledge workers and companies. Our spaces are more than just standard offices and conference rooms. We want to bring creative heads together and provide for an informative interdisciplinary exchange spanning all business areas, e.g. via networking and after-work events. In this sense the future appears decidedly positive: 2014 will see the opening of sites in Frankfurt, Berlin and Hamburg.

Michael O. Schmutzer is the founder, majority shareholder and managing director of Design Offices GmbH. At the same time he is an executive partner at Centacon Markenimmobilien GmbH, a nationally operating service provider to the real estate industry.



The attractive interplay between glass surfaces and the wooden support and load-bearing elements also helps to shape the vertical opening up of the free spaces between the outer and inner façades (left).

An open construction

Spruce wood and glass are the dominant materials in Zurich's new Tamedia publishing House designed by Shigeru Ban. This is his first project in Switzerland, and the Japanese architect has relied on a load-bearing wooden structure that gives the rooms their unmistakable character. Located quite centrally, the publishing house presents itself with self-confidence, and thanks to the large glass frontage opens out to the city.

Text **Lasse Ole Hempel** Photos **Boy de la Tour** (3), **Reto Oeschger** and **Shigeru Ban Architects**

Swiss media company Tamedia has been based at the Zurich Werdareal site for over 100 years. As far back as 1902, the editorial offices and the printing workshop of the daily Tages-Anzeiger were based here. The portfolio has since been increased to include many newspapers and magazines, and naturally the publishing house is also extensively involved in digital media. In the 1960s and 1980s and around the turn of the new millennium, renovations were carried out and extensions added, resulting in a media site near the Stauffacherquai where 1,200 people worked before the transformation. At the same time though, not all the employees could be accommodated, so in 2008 Shigeru Ban was commissioned with designing a new building that would offer space for all employees who had previously been scattered around the satellite sites and likewise give the various different buildings a homogenous overall appearance.

Wood as a high-tech material

The seven-story building, which was opened in July 2013, achieves all this – and what's more, it forms an elegant opener to the Werdareal site and now offers 500 publish-

ing employees an inspiring, bright and communicative work environment. Shigeru Ban created the clearly visible, load-bearing wooden structure with the help of wood construction experts Blumer-Lehmann, who are based in eastern Switzerland and had already worked with Ban on building a boldly designed clubhouse for a golf club in South Korea. Ban, who is known to be a big fan of wood as a material, has linked his first project to be realized in Switzerland with the Centre Pompidou he designed for the city of Metz in 2010, the wooden roof structure of which makes the edifice a unique feature of the city. Digital design techniques are opening up undreamed-of possibilities in the area of wood-based construction, since every point of intersection can be precisely calculated, including three-dimensionally. As a one-hundred-percent wooden structure, in which no metal can be found even in the connecting nodes of the beams and pillars, the new Tamedia building is proof that wood can keep pace with steel and concrete when it comes to load bearing, and can be equally high tech. Ban's design was even able to comply with the strict Swiss fire prevention regulations: Well before the start of construction, multiple tests were carried out in



Zurich and appropriate fire protection elements developed. The unconventional choice of materials makes a considerable contribution to the overall sustainability balance, since wood is a renewable raw material.

A view of the inner goings-on made possible

In Zurich, the task facing the architects was to build on an almost 1,000-square-meter plot in a corner location once an existing building had been pulled down. The new building joins up with the block that forms a point to the east. The addition of two stories to the neighbouring building from the 1960s resulted in a linear building formation of almost 50 meters in length. The publishing ensemble is separated from the banks of the Sihl by nothing but a busy, inner-city connecting road. Anyone turning towards the building from nearby Zurich City can see the inner goings-on of the media company through the entirely glass façade. The publishing house thus has an open face to the city and, precisely in these times when the publishing industry is in a global crisis, makes a self-confident statement with its new building, without aiming to draw

attention to itself excessively. The wooden structure is clearly recognizable as a unique feature, but at the same time, in terms of its volume, the building corresponds with the standard perimeter development at regulation height and, with its mansard roof and an elevated ground floor, it respects architectural characteristics of the Aussersihl district of Zurich.

The stimulus behind the structure

The main development of the Tamedia complex is the new building. As soon as you enter it, the structure's powerful wooden beams and joists framing the entrance area come into view. In particular, the connections between beams and supports are impressive in the perfection of their craftsmanship and materiality. Once again the building proves that purely structural elements can most definitely boast an aesthetic allure.

Meeting units as “balconies”

Alongside the editorial teams of the daily Tages-Anzeiger and the free Swiss consumer paper “20 Minuten”, the



The new building has helped to create a homogenous media site on the Stauffacherquai (left). Highlights of the foyer include chairs from Shigeru Ban's own collection and a terrazzo floor with stones from Ticino (above).

online editorial teams of the two popular media have also moved into the building. Due to the up-to-the-minute work that goes on and the production that can sometimes take place under huge time pressure, a decision was made to opt for an open-plan solution. The eastern side of the building, which faces the river, influences the character of a double-façade in the interior, which crucially expands the spatial concept. This is because the extremely generous open spaces between the outer and inner façades not only serve as a thermal buffer as part of the energy concept, but these areas, which are sometimes several stories high, also serve as a vertical connection between the various office levels, and accommodate meeting rooms and lounge areas for informal discussions. A particular incentive is the retractable window fronts, which transform the meeting units into airy “balconies”, inviting users to enjoy the view over the River Sihl.

Terrazzo flooring with Ticino river stone

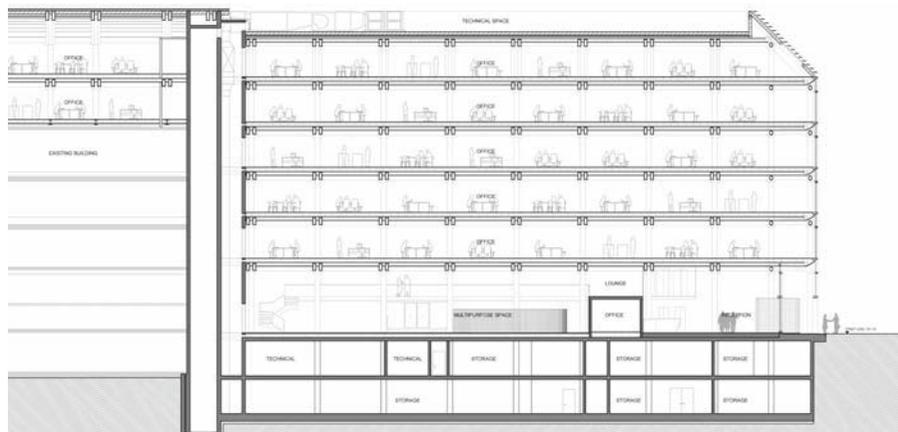
The Shigeru Ban studio was not involved in the interior design. Nevertheless, the architect was able to make his

mark – in the form of small seating ensembles in the building's own cafe and in the reception area. The wooden chairs with seats and backrests covered in cardboard tubes come from Shigeru Ban's own collection. The purist-style chairs not only combine perfectly with the influential wooden joists of the load-bearing structure, but also communicate effectively with the bright terrazzo floor of this area, for which 100,000 Ticino river stones were individually placed. Like the spaces between the façades, the large parts of the public areas on the ground floor are regulated by a heat exchanger, which is fed by the exhaust air of the office areas and the ground water. Thanks to the use of wood as a construction material, emissions were kept low even in the building phase. What's more, the building is carbon-neutral in its operations and meets the latest, extremely strict Swiss energy-saving regulations.

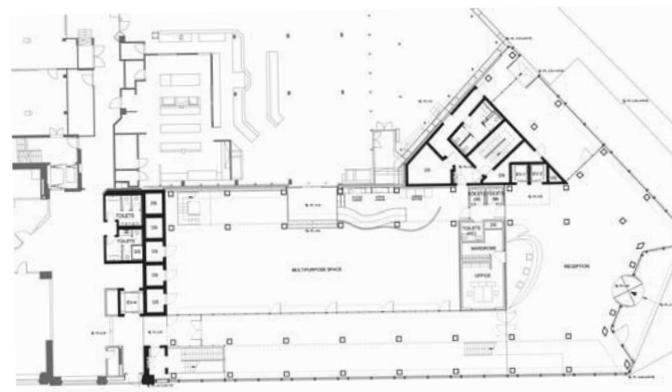
Dangerous glass wall

Shortly after the new rooms were occupied, stories circulated in the Zurich media about injuries caused by an evidently hard-to-see glass wall. The nasty bumps received





Section



Layout ground floor

In the spaces between the façades, the informal meeting areas break up the open-space model and can be transformed into airy "balconies" by lowering the panes of glass (left).

resulted in a case of concussion and a broken nose. In the meantime the glass wall in question has been made clearly visible with the addition of dark circles. "During the planning phase, we talked at length about the fact that the comprehensive use of glass can also lead to risks at times", says Christoph Zimmer who, as head of Tamedia's company communication and project manager, closely followed the development of the new building at every stage. "It is clear, of course, that with a building like this you cannot be aware of all eventualities in advance." Having said that, though, he claims the building successfully passed the 'heat test' of a hot August.

After two months of operation, Zimmer takes a thoroughly upbeat view overall: "Behind the collaboration with Shigeru Ban also lay our desire for a building that appealed not because of particularly expensive materials, but because of the creative use of standard materials. At the end of the day, we are fortunate enough to have a building that offers a creative, bright and friendly work environment and radiates openness towards the city – all qualities ideally suited to a media company."

Project partners

Developer

Tamedia AG, Zurich

Architects

Shigeru Ban Architects

Building technology

3-Plan Haustechnik Violka + Raimann AG
Kreuzlingen Thurgau, Switzerland

Integrated products from ABB

KNX regulator including constant light regulation
Low voltage main distribution boards

Unequal towers

The Russian answer to the New York skyline can be found in the heart of Moscow and was designed by German architecture studios ASP Schweger Assoziierte and nps tchoban voss. The imposing Federation Complex will be opened in 2014, and is set to become Europe's tallest building.

Text **Christian Breusing**

Photos **Alexey Naroditsky** and **Patricia Parinejad**

Highrises have always given rise to spectacular architecture, as well as headlines. The dream of the skyscraper inspires developers, architects and engineers alike. And it is not least residents who are raving about the imposing landmarks in their city. Highrises give birth to myths. For instance, the Empire State Building in New York stands for a timeless highrise cult immortalized by King Kong. In recent decades spectacular towers like the Burj al Arab (Dubai, 1999), the twin Petronas Towers (Kuala Lumpur, 1999), the CCTV Building (Beijing, 2009) and the world's tallest building, the Burj Khalifa (Dubai, 2010), have become talking points. The story of their construction also always sounds as exciting as the ascent of an eight-thousander in the Himalayas. Technical challenges, architectural vision, organizational skills, captivating aesthetics and signs of human hubris are just some of the properties certain to make skyscrapers into media stars.

“Our developer wanted to construct a building of superlatives, in terms of both size and quality,” explains architect Sergei Tchoban, in charge of planning the Federation Complex. “Even the design stage entailed all kinds of require-







ments to satisfy, beginning with the height and the associated demands on construction logistics, safety and maintenance, via the various usage options, the use of high-end materials and sustainable technologies, to the actual number of people who are to reach, enter and use the complex. We had to bring all of this into harmony with an aesthetic that is virtually unparalleled under these conditions.”

A new urban quarter on the banks of the Moskva

The foundation stone for the twin towers of the Federation Tower Complex, which are of differing heights, was laid in 2005 not far from the Moskva River in the Moscow-City business center. Moscow-City is one of the largest and most ambitious projects in the Russian capital. Four kilometers from the Kremlin, 15 skyscrapers are being built on an area measuring 100 hectares. A total of 60 hectares are earmarked for development, with more than 2.5 million square meters of office, residential, hotel, commercial and

recreational space scheduled to be created in the coming years in the new district on the banks of the Moskva. The highrises are grouped around a central shopping mall. A new subway line has hooked the business center up to the Moscow Metro network since 2006, and the overland lines of a new high-speed railway will link Moscow-City to two international airports. In contrast to numerous other building projects in the capital, Moscow-City will be largely free from historical stylizing and traditionalism and instead showcase modern Western architecture. Indeed, many contracts are consistently being awarded to international planners – in 2007, seven projects had already been realized, four of them from the drawing boards of foreign architects.

The plans for the Federation Tower Complex are the joint work of architects Professor Peter Schweger (ASP Schweger Assoziierte Gesamtplanung GmbH, Hamburg) and Sergei Tchoban (nps tchoban voss, architect [BDA], Berlin) who



Manhattan on the Moskva: The two towers of the Federation Complex cut an impressive figure in the Moscow skyline and offer space for offices, luxury apartments and retailing. Glass domes in the six-story base section afford a view of the towers (right).

won first prize in the international architecture competition for the project. Their design hinges on the Russian principle of placing two elements almost identical in shape but of different sizes alongside each other – like the onion domes of Orthodox churches, for instance. The Federation Tower Complex rises up like a lighthouse out of a cluster of 15 other skyscrapers grouped around a central axis. For unlike the buildings in the immediate surroundings, which drip historical and traditionalist allusions, the two towers of the Federation Complex are characterized by their slim, unpretentious modern aesthetics.

Knife-like silhouette

The towers, both the shorter Tower West/B, with 63 above-ground stories, and the taller Tower East/A, with 95 above-ground stories, became new landmarks in the Moscow skyline even as building shells. Both towers have similar-sized floor plans with slightly convex sides, which

taper gently upwards, creating a gently curved façade. With their silhouette, slightly reminiscent of an upright knife, the towers make a striking impression from different perspectives. This is a structure that self-confidently underlines Moscow's claim to be one of the key megacities. A perimeter development consisting of an above-ground six-story base with several incisions serves the twin highrises as a podium. The caesura between the base and towers is emphasized by a four-story “waist”, on which the two tower structures stand in the form of two spherical, equilateral triangles, tapering towards the top. In terms of layout the stories above the podium form a lens rotated by 45° and recede under the higher levels of the two towers.

Take the panoramic elevator to the observation deck

The dynamic composition of the two towers, measuring 242 meters and 373.5 meters in height, will be anchored by



a spire positioned in-between that will house panoramic elevators and an antenna soaring up 448 meters and forming the central axis. The solid base, clad with printed and spherically curved glass, ensures the ensemble is optically balanced. The panoramic elevators begin their journey through a glass tube in the 14-story atrium in the base of the structure. The uppermost connecting bridge (floor +89) affords access to the public observation deck at the top of Tower East /A. The connecting bridges also feature glazed ceilings and floors, thus offering visitors a 360° panoramic view. Sergei Tchoban purpose-created various elements especially for the Federation Complex, such as door handles and luminaires, based on the geometry of the building. In this way even the smallest details attest to the special significance of the architecture.

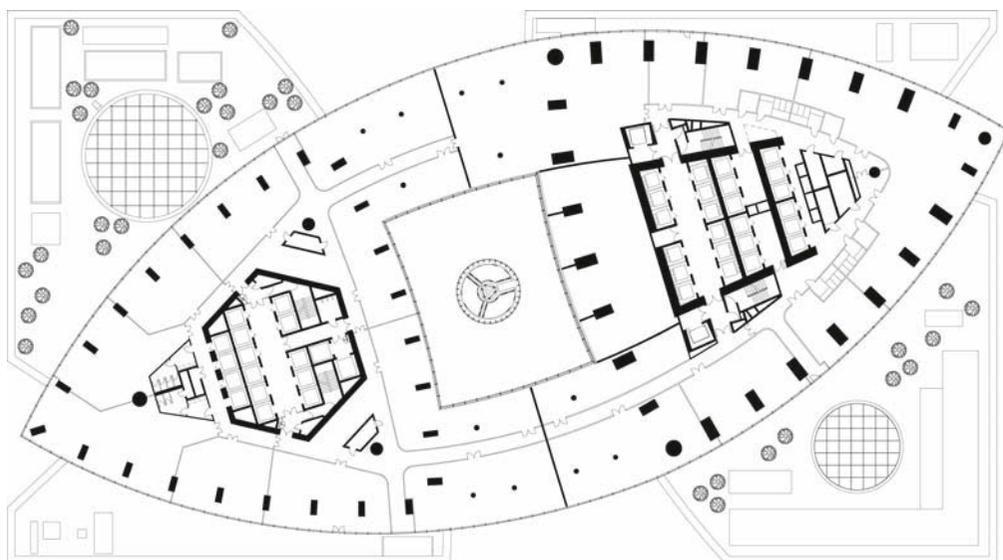
Unique design possibilities

With the exception of the lamella elements on the service

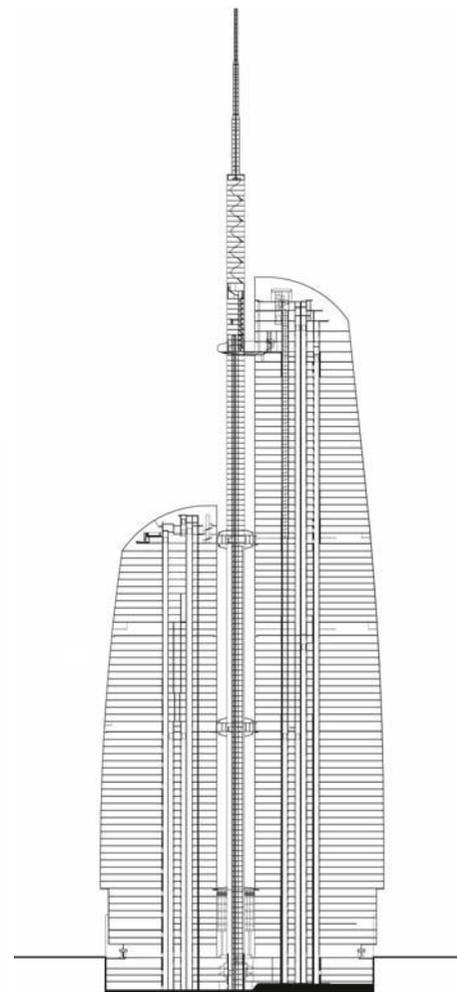
floors, the towers are fully glazed. The floor-to-ceiling components of the curtain façade are affixed to the outer edges of the steel and concrete ceilings behind panels printed with cloud patterns. Given that the service floors were not positioned at the ends of the towers, these sections provide unique design possibilities. As such, in the taller of the two towers visitors can first take the express elevator to the “Skylobby” bar and restaurant directly under the glass dome on the 92nd and 93rd floors. Those who wish can then cross over to the west tower, which boasts a swimming pool and spa area under the glass pinnacle. Luxury apartments and office levels can be found in the immediate proximity.

The entire podium section and both towers are defined by mixed functions and usage. The podium features a conference center across four levels as well as entertainment and shopping opportunities and a wide selection of

Sergei Tchoban's Moscow branch was responsible for the interiors of the 35 stories occupied by VTB Bank (above). The striking form of the towers also influenced details such as the door handles (right).



Layout 6th floor



Section

restaurants. Each individual story can be accessed separately from a joint elevator lobby.

KNX control of working climate and lighting

Sergei Tchoban's Moscow office SPEECH Tchoban & Kuznetsov was responsible for the interior fittings on the 35 stories reserved for VTB Bank. A KNX system controls the climate, lighting and window shutters in almost all sections of the bank, combining comfort with extremely high energy efficiency. This system won the KNX Award 2010, which is further clear proof that the Federation Complex boasts superlatives on both the large and the small scale. Alongside cutting-edge, energy-saving technology, the developer also wanted flexible structures, in order to be able to optimally adapt the Federation Complex to the changing individual wishes of tenants and users in the future.

Project partners

Developer

ZAO Bashnja Federazija, Moscow

Architects

Prof. Peter Schweger, ASP Schweger Assoziierte Gesamtplanung GmbH, Hamburg and Sergei Tchoban, architect (BDA), nps tchoban voss GmbH & Co KG, Berlin

Integrated products by ABB/Busch-Jaeger

KNX system controlling climate, lighting and window shutters
Busch-priOn and Busch Triton



New landmark in Duisburg's Inner harbor: O&O Baukunst has created a new central archive tower (left) and meandering office wing for the North Rhine-Westphalia State Archive.

Warehoused

In October 2013 the North Rhine-Westphalia State Archive commenced relocation to its new home in Duisburg's Inner harbor. The architects at O&O Baukunst have impressively expanded an old warehouse building, adding a new central archive tower with a textured feel and a meandering office block that docks onto the old edifice. It's a new landmark for the city of Duisburg, and has already caused a real stir before even opening.

Text **Ralf Johnen** Photos **O&O Baukunst**

It's now some six years since the state government resolved to transform an abandoned grain warehouse in Duisburg's port into the memory of North Rhine-Westphalia. Hitherto located in Düsseldorf, the State Archive will now also house the documents from the satellite office in Brühl, nr.

Cologne. At the end of October 2013 the first members of the total staff of some 100 moved into their new offices.

The most attention is grabbed by the converted and expanded old warehouse building itself, a new landmark for the otherwise sorely hit city of Duisburg, where high unemployment and an ever contracting population give rise to many a negative headline.

O&O Baukunst, owned by Manfred and Laurids Ortner, were commissioned to design the building. The Austrian brothers first started work in Düsseldorf in 1987 and have offices in Vienna, Berlin and Cologne, too. In their proposal, the existing warehouse dating from the 1930s was supplemented by a central archive tower, which had a fine textured façade to set it off from the clinker structure of the old warehouse. The five-story annex, "The Wave", which meanders along the Duisburg water-side and emulates the theme of the water and the red color of the brick silo, houses the foyer, the reading room for archive users, and the

staff's offices. An edge has been added on the plaza at Schwanentor to set it off from the roadside. Together with the cargo cranes positioned along the water's edge, the complex exudes a touch of nostalgia for the Industrial age. The project should definitely be seen alongside other extensive modernized old buildings, such as the Zollverein colliery in Essen and the "Dortmunder U" cultural center.

Over 100 kilometers of archive shelving

The archived materials will be spread across the 13 stories of the new silo. In order to banish light as a potential threat to the documents, the architects have had all the windows in the old building bricked up. Only in that part of the façade that transitions into the new building are there openings – in the form of bull's eyes. And the storerooms in the warehouse boast over 100 kilometers of shelving.

The State Archive is leasing the complex on a permanent basis from the state's Bau- und Liegenschaftsbetrieb des Landes (BLB), and expressed essentially conventional wishes as regards the office interiors. Most staff members will work in functionally designed cell offices. What is unconventional is the layout of the office rooms, which



results from the wave-like footprint. Windows end only just above the ground, meaning the offices are suffused with daylight. Equally spacious is the water-side entrance portal, through which visitors access the building: It runs the entire height of the new edifice. Here, the bull's eyes offer glances inside the storerooms, where until the official ribbon-cutting on May 5, 2014 among other things documents from the state and its predecessor territories, such as materials from monasteries, official ledgers from early Modern times, and all the files from the state government and all local authorities will be kept.

Visitors are not able to freely access the storerooms – any archive materials requested are transported to the spacious reading room via an ingenious system. A real challenge here was handling transfer of the loads posed by the castor-based shelves, especially in the old warehouse building. The latter was built to absorb highly distributed loads from bulk goods, whereas the 2.23-meter-high castor-based shelves create linear loads. A beam system was needed both here and in the new 13-story and 77-meter-high archive tower to prevent the tracks for the castors bending.

Ensuring the right ambient climate inside the archive rooms was also a tall task: In addition to the rooms for printed materials, which are kept at a constant 16 degrees, in the basement there are rooms for photo and video documents, where everything is kept at 1°C to make certain it is preserved for posterity. The original plan was passive air-conditioning, but this was jettisoned in the further course of planning in favor of an elaborate air-con system. To prevent the ventilation technology from disturbing the overall appearance, it was concealed under the roof skin. A baguette structure based on ceramic elements, aluminum tracks and steel beams disguises the air-con system in the brick building.

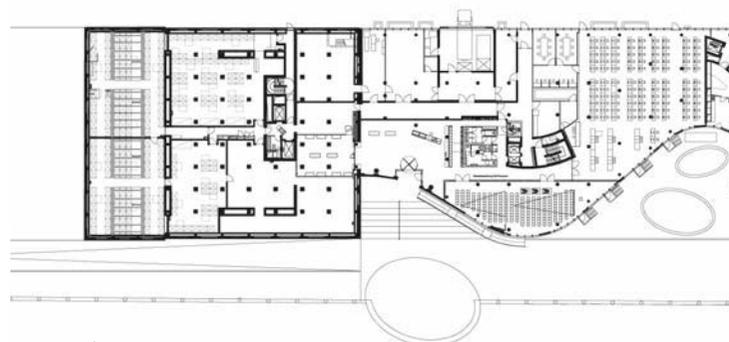
Retrospective changes to the plans

Not only the striking shapes of the storage tower and “The Wave” attracted a great deal of media attention before the state archive had even opened, but it swiftly became clear that the sum of EUR 35 million communicated publicly as the project price tag would definitely not cover all the changes to the plans requested, the increased surface areas, the fee, the general contractor’s



The textured structure of the central tower stands out from the clinker brick of the old building (right). The state's memory is now stored in the 2.23-meter-high archive cupboards. The architects christened the new office wing "The Wave" (left).

honorarium, VAT or the price of the real estate. Many factors played a role, starting with the surface area, which the developer requested be doubled: Not only the archive areas were increased, but alongside the rooms for state archive staff there were to be additional offices that could then be sold or rented out. Christian Heuchel, one of the managing partners at O&O Baukunst, points out that the architects initially devised a concrete structure to increase the tower's height, particularly as the competition terms stated that the warehouse was sound and could bear the requisite loads. The developers then opted for a far more expensive steel structure to cater for the load created by the castor-based shelves. "Everyone realized immediately that it would be an engineering challenge," Heuchel says. "But given the initial setting and the need to handle 137 kilometers of shelving, the length of the high-speed rail track from Cologne to Frankfurt, the archive tower still seems the best possible solution on the site. One should remember that if the shelves were arranged on ground level, we would have needed a greenfield building measuring 600 by 600 meters."



Layout



Layout typical storey warehouse building

Project partners

Developer

Bau- und Liegenschaftsbetrieb NRW

Architects

O&O Baukunst, Vienna

General contractor

Hochtief Solutions AG, Niederlassung NRW

Gross floor area

48,000 square meters

Integrated products by ABB/Busch-Jaeger

KNX sensors

switch range future® linear, white



Neutelings Riedijk Architects

Of Towers and Landscapes

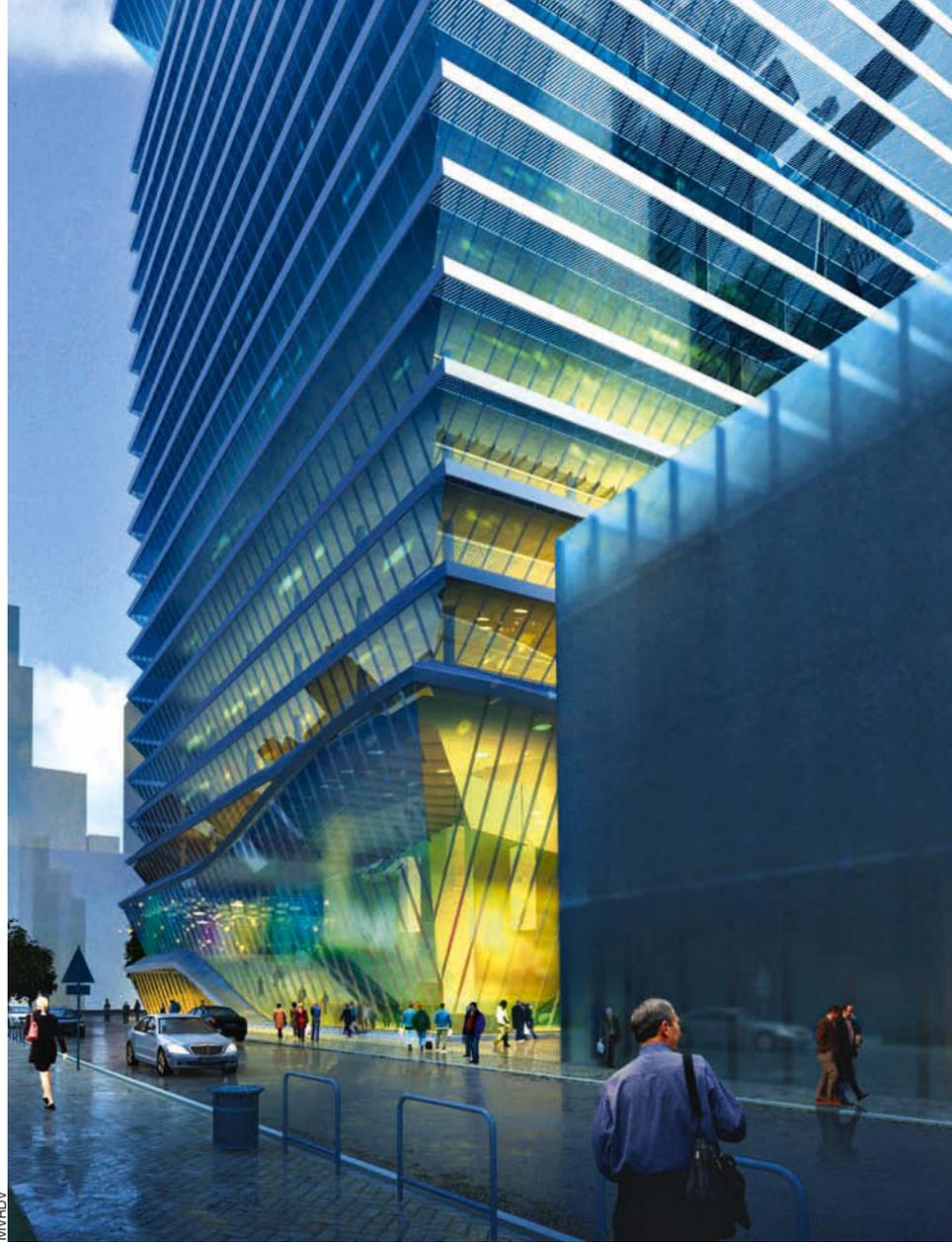
A tall office tower is still capable of helping a company gain attention, especially if it involves an unusual architectural approach. But the plans for new company headquarters in Silicon Valley prove that power and influence need not be expressed by a building's height.

Neutelings Riedijk Architects: Le Cinq, Paris, France

With their project "Le Cinq" Dutch architects Neutelings Riedijk are pursuing a new form for the office tower, combining the advantages of a high-rise – small plot area, short transport routes, a breath-taking view and a bundled services – with the dimensions of a fairly compact district that is manageable for the workers. "Le Cinq" comprises five autonomous structures with six floors, with each building being arranged around a central green area. Each of these locations develops its own theme, which is expressed through the respective landscaping and artistic elements. The special atmosphere of the high-rise has imbued the building with a sense of soul. The South and North façades with their solid and open sections allow the observer to let his gaze drift either across the front of the building or out to the distance, while the sky is visible in the gaps between the horizontal units. Office tower "Le Cinq" is not a wall to the world. Nor was it conceived as an ambitious individual object: It will not only serve as a connecting link between Paris and its periphery, but also has an architectural connection with the Eiffel Tower. Moreover, the architects wanted to set new standards with regard to sustainability. They have planned to generate the energy needed to run the building via an on-site geothermal system and solar heat pump, and use an outdoor air pre-cooling system and gray water collection system in line with the Paris Climate Plan.

MVRDV: Guosen Tower, Guosen, China

The new headquarters of Guosen Securities Corporation in Suzhou, China is to reflect the dynamic firm that is expanding at meteoric speed. The building owner places equal importance on providing employees with a pleasant working atmosphere and creating an energy-efficient building. Inspired by a Chinese lantern, the Rotterdam architects MVRDV have designed an outer shell, which not only had regional references but also made sense both ecologically and economically. The plan is for a compact, square layout for the 204-meter-high tower. Affording direct views of the bay of Hong Kong, each of the floors covers an area of just 1,849 square meters. This means all workplaces can be positioned at an ideal distance of no more than eleven meters from the façade. Though the best view is to be enjoyed by the management from the lounge in the double-storey top level, the businesses and restaurants housed on the ground floor will profit from light from the large window fronts, which also extend over two storeys. In order to keep the building's energy consumption as low as possible, the outer edges of every story slope out at an angle of 35 to 55 degrees so as to protect the levels below from extremely strong sunlight. On top of this, additional solar cells generate 33 percent of energy consumption for the entire building, and the rainwater caught via the façade is mixed with the service water. The aim is to employ as many energy and resource-saving measures as possible.





A spaceship or the ring of an impregnable fortress: Whichever way we see it, Apple Campus 2 by Foster + Partners is a project of extremes.

Apple, Facebook, Google und Samsung: New office buildings for Silicon Valley?

“Corporate Kindergarten” was the term used by German newspaper Frankfurter Allgemeine Zeitung to describe plans, which became public in summer 2013, for a new Apple Campus in Cupertino, California and a new company headquarters for Facebook in Menlo Park. What is remarkable about the two new designs is that the architects – unlike many of their colleagues, who also draw up plans for huge corporations – are not looking to build as tall as possible. The typical conceptualization which considers height as synonymous with power does not appear to play a role here. Indeed, both Norman Foster’s design for Apple and Frank Gehry’s model for the new Facebook HQ appear to fit neatly into the landscape, almost as if they sought to become invisible. Far from it, indeed one day the single-story office structure that Frank Gehry is working on will house the largest open-plan office in the world, of almost 40,000 square meters. Practically the entire roof is to be planted so as to merge into the landscape. Nature will also play a crucial role in Norman Foster’s design for Apple: His four-story circular building (commissioned by Steve Jobs) is to enclose an artificial jungle at its center. As the building is located in a large park the visionary edifice will barely be noticeable from the street. If you look at a bird’s eye view of the building the shapes will be evocative of the brilliant perfection and coherence of Apple products. Campus 2, as the future headquarters is called internally, will be located a mile east of the current head office. Observers will compare the circular building to a spaceship or a fortress – a description influenced by Apple’s corporate culture of secrecy; on the whole very little is leaked to the public about innovations, and then the presentation of a new product or feature is orchestrated as a ritual attracting worldwide attention. The 12,000 employees who are to work on Campus 2 will not be lacking anything: in addition to a first-class restaurant they will have a corporate fitness center the size of an airplane hangar and a park landscape with exactly 7,034 trees at their disposal. On top of this Apple is planning to recycle its own water and to build its own eco-friendly power station. Over a third of staff will be encouraged to forgo their cars thanks to a

corporate bus service. Apple would like to move into the building in 2016. With an office space of almost 318,000 square meters, it will come close to the Pentagon (344,000 square meters). But the sheer size of the project and the alteration work involved has triggered serious debate in Cupertino. The removal of a road section and the increase in traffic were the cause of several hearings at the local city council. But in mid-October the committee gave the green light for the project – Apple can go ahead and build.

The new Facebook building is to take shape just half an hour’s drive away from the planned Apple Campus 2. Both projects could open up new chapters in office architecture, as though the international corporations from California were staging a competition to see who could build the most attractive and original building. This should make the coming months interesting for Silicon Valley, which is world famous for the companies located here but has not exactly been known to date to be a stronghold of innovative architecture. “The competition for employees and ideas is especially tough in Silicon Valley because the economic cycle there has reached a climax,” said NBBJ architect Scott Wyatt in the German weekly newspaper Die Zeit. The grand architectural plans of the software corporations were not evidence of their megalomania but demonstrated that firms had understood the connection between work performance and working environment. His office is currently busy helping three other big players in the sector to make a huge architectural impression: aside from the new Google headquarters in Mountain View, NBBJ has been working on a new sensational Ama-

zon company building in Seattle and the new American Samsung headquarters. Apple's South Korean arch-rival Samsung is planning a new outstanding company campus for their headquarters in San José, roughly ten miles from the Apple HQ. A lavishly landscaped working environment is to be created on over 100,000 square meters. In the design conception the architects were inspired by Samsung's most successful products, namely semiconductors. As in a circuit, various levels are to be merged in San Jose so as to also enable high-speed communication between employees. The design foresees stacking several two-story building sections on top of each other in such a manner that a spacious interior courtyard with plants and greenery is formed at the center. Between the elements there are also to be slit-like spaces that can be used as terraces, meaning that every Samsung employee in Silicon Valley should, in the future, have easy access to the outdoors from his or her own floor.

The ensemble consists of a ten-story complex, a pavilion and a parking garage. In 2015, around 2,000 employees from Research & Development and Marketing are to move into the building. The San Jose project required a unique solution, one to set Samsung apart from Apple, Google, Nvidia and others, said Jonathan Ward, architect at NBBJ. As he explained to The Korea Herald, a South Korean daily newspaper, "the objective was to make a creative statement and create a working environment for Samsung's future."



Building elements connected as in a circuit so as to promote positive energy between staff were conceived by the architects at NBBJ for the new Samsung headquarters in San Jose, California.



Interaction instead of silos

Since 1984 Cologne-based GATERMANN+SCHOSSIG has designed high-quality office and administration architecture. Using an integral approach hinging on intense dialog between specialist planners and artists, the office develops buildings that are cost-effective to operate and highly aesthetic in appeal. In conversation with pulse Dörte Gatermann uses many examples to illustrate what she considers important when designing modern work settings.

Interview **Katrin Förster** and **Lasse Ole Hempel**

Gatermann+Schossig's building designs hinge on an ethical concept of efficiency, in terms of materials and energy consumption. Since Elmar Schossig died in 2009, Professor Dörte Gatermann has been managing director of the company and has maintained the high aesthetic standards and the emphasis on sustainability. Katrin Förster, International Key Account Manager at Busch-Jaeger, and pulse editor Lasse Ole Hempel interviewed Dörte Gatermann at Cologne's Rheinauhafen.

Here at the Rheinauhafen port GATERMANN+SCHOSSIG currently have four exciting projects in the pipeline: the FrauenMediaTurm tower dating from 1994, the port authority dating from 2000, the Kontor 19 office premises and finally the location of our meeting today, namely the office building on Zollhafen 22.

The FrauenMediaTurm tower was my first project at Rheinauhafen - a medieval defense tower dating from the 12th century. Alice Schwarzer, who took on the role of developer, persuaded me to come on board to reconstruct this building which had been largely destroyed in the War, to prepare it for its new function as an archive. But since I was also responsible for the interior I was allowed to turn the tower completely upside down. The second project soon followed – a modern extension to the 19th-century port authority.

With your projects at Rheinauhafen you have contributed to the transformation of a disused industrial site into a modern residential and office complex...

With Cologne I always think that many people have overlooked the city's incredible location and consequent development potential. And it was partly because I wanted to provide the city with a modern landmark that I fought so hard for the "Köln Triangle" high-rise. This was a project for which I was long criticized, but which has now met with a great deal of approval. In Cologne, the Rheinauhafen has successfully furnished the city with a counterpart to the old town and its medieval past.

The two office buildings you have designed for Rheinauhafen, Kontor 19 and Im Zollhafen 22, only lie around 300 meters from each other as the crow flies. What do they have in common and how do they differ fundamentally in terms of the approaches they take?

Neither building was planned for a specific user. For the building at Kontor 19 we proposed a very compact economical block which immediately stretched the requirements for Rheinauhafen. At the end of the day, our sculptural approach won out. The stacked story was moved; the building looks as though a part of it had been cut away. The

Large glazed atriums, bright red glass panels and a meandering shape typify the seven-story Capricornhaus that constitutes the southern end of Düsseldorf's Medienhafens (right).





Jens Willebrand

building is also very special in terms of its energy concept. We managed to not only install thermal component activation, but also utilize the water from the Rhine by means of heat exchangers. Here, for the project at Zollhafen 22, we consciously opted for access running from top to bottom. The reception and the conference areas are housed in the upper stories – visitors and staff members, for example, start their working day at the top, able to admire the great view over Cologne. This means that each individual employee is not made to feel like a small cog in a wheel but can positively feel at home in the building.

It is striking how for almost every office building you have also developed a special, specific type of building façade.

At Kontor 19 we opted for an integrated façade – a high-tech solution with night cooling that looks simple from the outside. The system runs through the roof area. We stretched a skin over everything with openings where one really would not expect them. This is a system that has allowed us to forgo sun blinds on the outside.

Another obvious aspect is the materiality of the outside walls...

I wanted the kind of material that matched all our technical requirements and was not so much low maintenance as zero maintenance. We eventually found what we were look-

ing for on the Internet from a New Zealand company – thus acquiring a thin aluminum skin which is also manufactured using a special process. For our purposes we had it “scratched” by an artist. This means that depending on light conditions, the external skin can take on a wide range of different sheens.

No doubt, the Capricornhaus building in Düsseldorf occupies a special place among your office projects, an undertaking where you were also responsible for the interior fittings and even developed special office furniture, together with your team.

The Capricornhaus is a very comprehensive project with many special features, from its integral planning to its completely prefabricated façade and its finish. The floor plan has been developed as a space-efficient shape, allowing international corporation E.ON Energy Trading great flexibility for every kind of workplace. Thus the company was furnished not only, for example, with a combination of individual, group, open-space and non-territorial workstations, but also with generous recreation areas, as well as fitness, conference, cafeteria and restaurant facilities. For all areas, we were able to develop special furniture, luminaires, workstations, communication channels, as well as developing a technically sound and attractive system for the trader workplaces.

Landmark for Cologne: In 2007, Gatermann+Schossig created a striking office high-rise with the Köln Triangle, a modern symbol that enhanced the entire district on the right-hand bank of the River Rhine (above).

An issue that generally appears to be important to us with regard to offices is communication between employees.

What approach do you take in this respect?

We created the the port authority's inner courtyard, for example, which was originally controversial among employees. Some of them were uncomfortable about the fact that people in the inner courtyard could see when somebody left their office. Nowadays they leave the doors open and appreciate the fact that the central courtyard is a space that people can use. There have been exhibitions there and even a performance. For the Triangle high-rise we took this idea one step further. There, we devised a seven-story atrium which can also be used for events. The top floor of this high-rise is a public observation platform. Additionally, there are elevated stories that can be hired, for instance, for the announcement of annual results, wedding receptions and birthday parties. It has always been important to me that we replace a blinkered reality with the exchange of ideas.

You and your husband Elmar Schossig, who died in 2009, are seen as pioneers of sustainable construction... In 1981 the two of you traveled around the USA, spurred on by the architecture of people like Buckminster Fuller. What is your opinion on the now ubiquitous term sustainable?

The subject of sustainability is applicable to a very large number of areas but is today far too often limited to the field of energy. However, it is the entire cycle that matters and this also includes the socio-cultural circumstances. Which is why I think that we should, to a certain extent, give buildings back to society. This does not need to be seen as an altruistic gesture but can also make economic sense. One of the aspects of sustainability is the kind of quality that ensures that a building lasts for a long time.

What are your views on the subject of building automation?

Today, we need highly regulated buildings designed in a meaningful way, buildings that completely meet all our requirements as regards both energy and well-being. Technology needs to be simple and self-explanatory even when what is behind it is extremely complicated. It must also be intelligent enough to respond immediately when man intervenes and disables it. For example, sometimes office workers very much want to air a room themselves even when, from an energy viewpoint, the building technology is better equipped than they are at dealing with ventilation. With this in mind, for the Triangle project I made sure that parts of the windows could be opened manually by 10 cm. This allows the energy system to continue working while also meeting people's needs. I don't know if you know that the façade has been awarded a prize.



Markus Boeker



H.G. Esch

In Düsseldorf's Capricornhaus Gatermann+Schossig also handled the interior design and, among other things, developed communication channels, workstations and the trader workstations, which can be especially flexibly adapted to changing conditions (above). For the interview, Dörte Gatermann invited the pulse editors to the Cologne office building she designed and which opened in 2011, at Zollhafen 22, located on the river bank between the two crane buildings designed by Hadi Teherani (center). In conversation with Busch-Jaeger Key Account Manager Katrin Förster (below, on the l.) Dörte Gatermann looked back on almost 30 years' project work in her own architectural firm.



Oliver Schmauch

Concrete

The development of ultra-high performance concrete (UHPC) opens up new, undreamt-of possibilities for concrete. An impressive recent example of its use is the Museum MUCEM in Marseille.

Answers from **Rudy Ricciotti Architects, Bandol, France**

At the Museum of European and Mediterranean Civilizations, or MUCEM, in Marseille you used ultra-high performance concrete (UHPC), among other things, for the arabesque latticework of the shade-giving façade. What are the advantages of this new construction material?

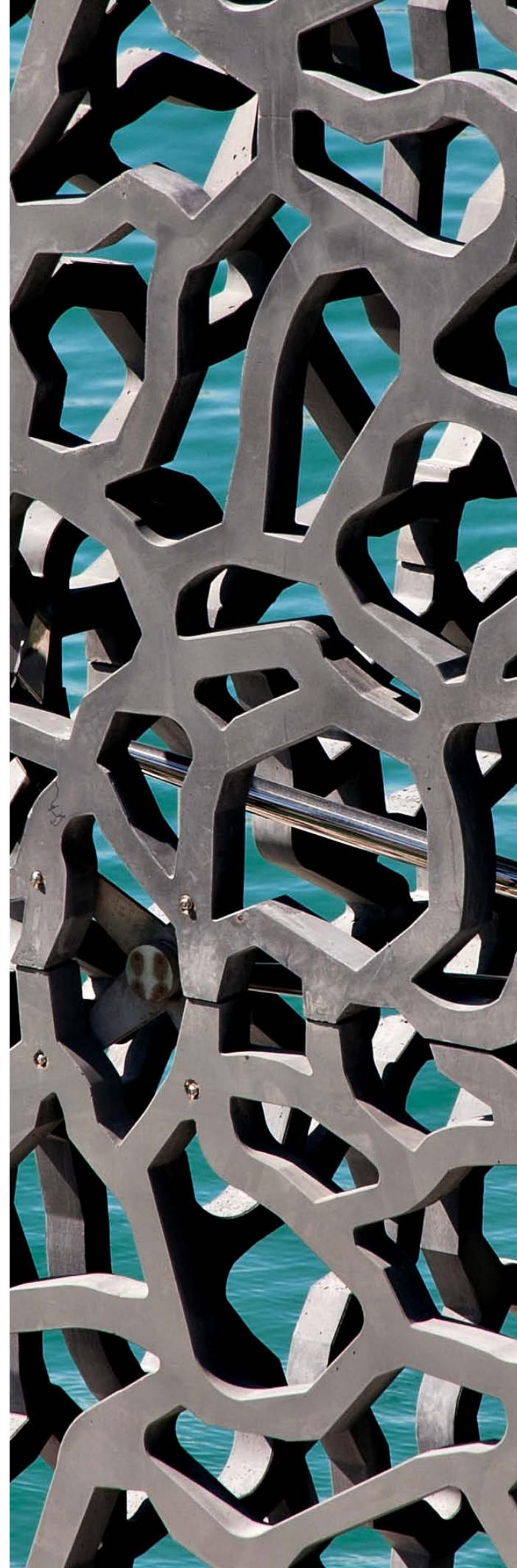
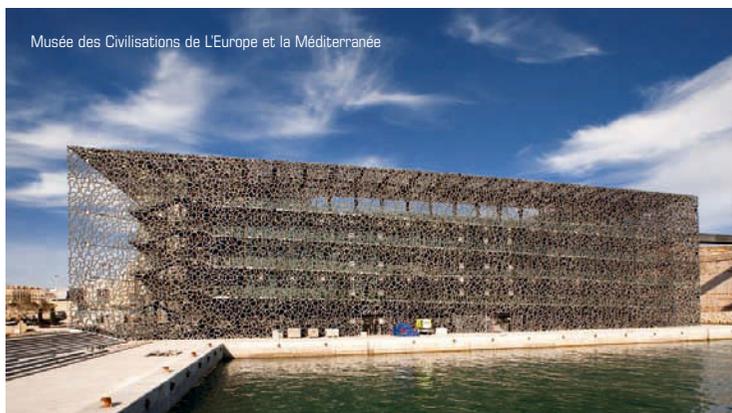
In terms of compression strength and corrosion resistance UHPC is superior to all other construction materials. Its surface feels soft to the touch. And you can create extremely fine sections that have great sensory appeal as structures.

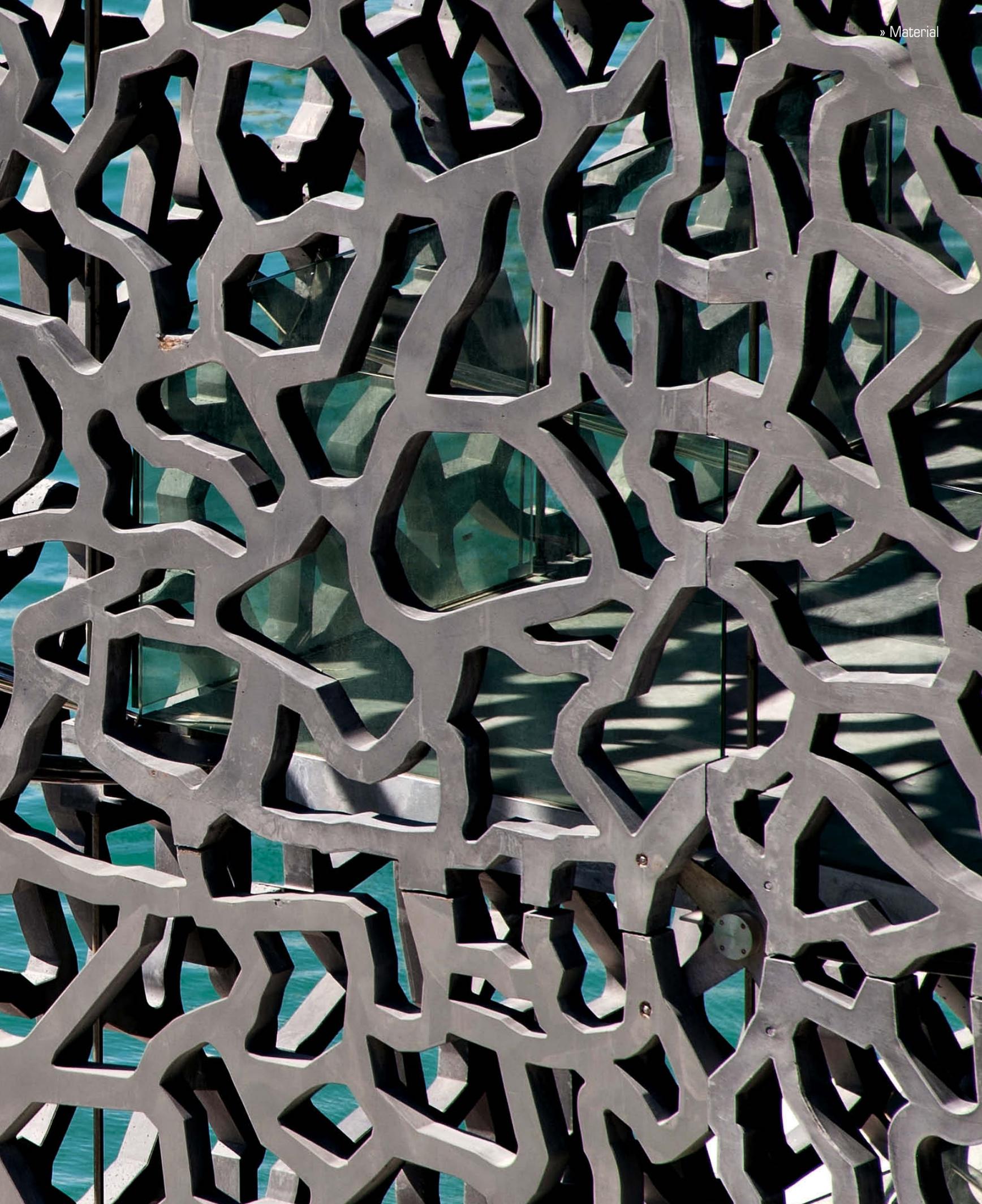
Have you since used the material for other projects?

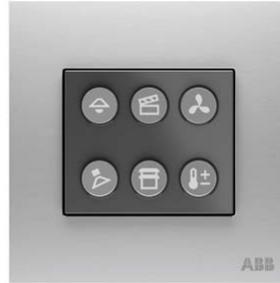
Last year we finished the office building for ITER with an outer shell of UHPC and the Stade Jean Bouin in Paris with a waterproof UHPC roof; in each case it was UHPC that made the projects feasible in the first place. The MUCEM is the first building whose architecture and shell structure were developed entirely in UHPC from design through to completion. Moreover, all three load-bearing structures show that UHPC makes sound economic sense. For example, from planning to completion the MUCEM costs just under 4,000 euros per square meter.

Do you now see concrete in a new light as a construction material?

Concrete was always an interesting material for us. What most impresses us about UHPC is the precise finishing you can achieve with it, the engineering know-how behind it, and the expertise of the workers. It represents the fusing of traditional construction engineering with contemporary materials and techniques. That creates local know-how rather than workplaces that can be located anywhere. We are currently building a highway bridge in Montpellier using white UHPC, which should help advance the material approval procedure a good deal.







Convenience and energy efficiency: With the Millenium switch range, ABB offers the option of organizing rooms in a highly intelligent manner and reducing their energy consumption.

Slim design plus responsibility for the planet – World premiere of the ABB Millenium switch range in Singapore

ABB held the launch and world premiere of the new Millenium switch range on October 4 in Singapore, where the World Architecture Festival was held from October 2 to 4. Some 500 designers, architects and planners came to "The Lantern" club in the Fullerton Bay Hotel and enjoyed the view offered from one of Singapore's most beautiful roof terraces. The new range will be marketed in Great Britain, the Middle East, China, Australia and New Zealand. It is the first switch solution based on a British standard which has been awarded an Ecodesign certificate. "These days it is no longer enough to design according to purely aesthetic standards", said ABB Key Account Manager Katrin Förster during the presentation of the Millenium range. "The manufacturer should take over the respon-

sibility for the environment and also deal with ecological design. At ABB we are convinced that the intelligent use of technology involves dealing sustainably and respectfully with our planet. Our products are never designed merely for the individual, but also for the environment surrounding them."

LED technology meets KNX system

The range includes KNX control elements with two to six controllers, a movement detector with a 180° detection radius, as well as a KNX room control unit. What appeals to the eye is the ultra-slim, strictly square design of the Millenium range. The Convenience and energy efficiency: With the Millenium switch range, ABB offers the option of organizing rooms in a highly

intelligent manner and reducing their energy consumption. The switches are a mere 4 millimetres high and ideally suited for residential areas, hotels and office buildings. The range was designed by Catalonian designer Josep Lluscá, who holds the Spanish design award. The light switches of the Millenium range are made of stainless steel and are available in the colours "Stainless steel", "Silk black", "Antique gold" and "Matt gold" and can be combined with a KNX system, allowing rooms to be controlled conveniently and with minimal energy. The light signals of the switches are based on modern and economical LED technology. Sustainable aspects were the main consideration even during the design process, which involves particularly the service life of the product, starting from design through to production, marketing, operation and recycling. This year the Millenium range has already received the "Interior Innovation Award" and the "red dot design award".

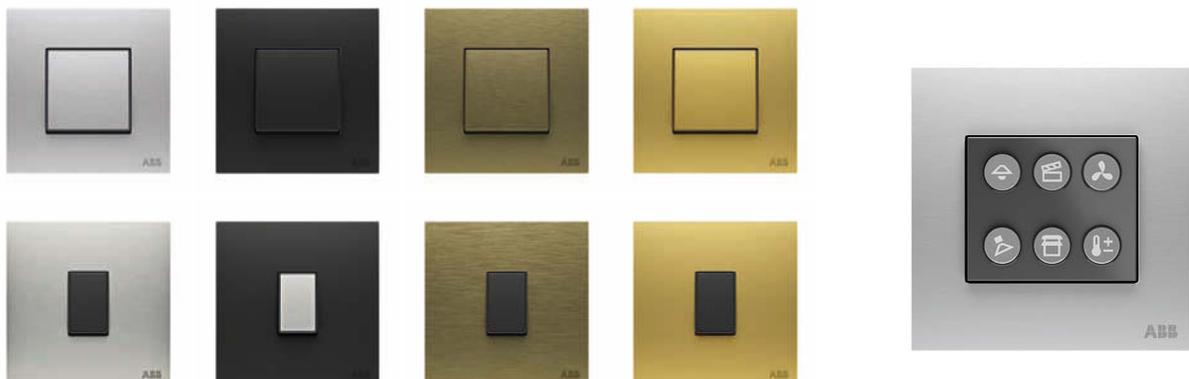
Impressive, elegant design

The professional audience in Singapore praised the design of the new Millenium switch range. "The colour range of the surfaces and the elegant design are ideally suited for hotels, restaurants, apartments and high-quality office buildings", confirmed designer Jean-Luc Fourier.

One's view from the terrace of "The Lantern" is automatically drawn to the inimitable silhouette of the Marina Bay Sands Hotel, designed by Moshe Safdie, in which the World Architecture Festival was held this year. Thousands of professional visitors streamed into the Asian metropolis. With the world premiere of the Millenium range, ABB is proud of its contribution to helping turn Singapore into the capital city of architecture this October.



In Singapore ABB presented its Millenium switch range for the first time, which combines elegant stainless steel design with KNX technology and a wide-ranging sustainable concept. ABB Key Account Manager Katrin Förster (above) spoke the introductory words during the event on October 4 and presented the range together with her ABB colleagues KyiKyi Than and Tommy Andreasson (top photo). The new range also includes the KNX control elements (below). The switch range is available in a wide range of materials and colours (below left).



How many Tecino river stones went into the terrazzo floor in the Tamedia publishing company building?

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



Globetrotting for ABB/Busch-Jaeger

One highlight this fall was without a doubt the international premiere of the new ABB switch range in Singapore, which took place at the same time as the World Architecture Festival (see also p. 40f.). Back in Europe an entertaining event – with a serious underlying message – was held on



November 11, supported by ABB: IG Architektur in Vienna, Austria, held the award ceremony for the “Planlos Award 2013” in the studio space of the Academy of Fine Arts (the Semper Depot.) For the second time, an independent jury awarded the prize for the most “senseless decision in Austrian building design” and let the occasion be an excuse for a whirl of a party. It was not the first time this excellent location has hosted a party, as the studio space was used in previous years for the production and storage of stage sets and scenery for Vienna’s Burgtheater. The central hall is equipped with platforms, columns, and wooden galleries with wrought-iron railings: opulent and festive, yet also rustic and down to earth. The perfect setting, then, to present the eight-kilogram block of fair-faced concrete and highlight irritating outcomes in the construction industry. This year the prize went to the Austrian Standards Institute, a choice, or so the jury argued, that was justified as a response to the way this organization has increasingly been behaving as if it were the legislative, obstructing the work of architects and builders alike by imposing a whole host of constantly amended regulations.

Katrin Förster is our competent international contact person for architects and designers. Please feel free to mail her at katrin.foerster@de.abb.com

The prizes:



All correct answers to the competition question (left) will be put into a hat, from which ABB/Busch-Jaeger will draw two winners. The prizes are a copy of **Work Scape. New Spaces for New Work**, published by Gestalten Verlag, and **Offices**, Braun Publishing. Entry deadline: January 31, 2014. The winners of the last competition are Andreas Drexler, 13088 Berlin and Willi Eder, 65779 Kelkheim.

Preview pulse 1/2014:

Hybrid Buildings

In the 1/2014 issue of pulse we present hybrid buildings that combine various uses such as residential, office or retail.



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Millenium. Functionality is more than comfort.



The Millenium range is designed to create unique environments, and engineered to perform maximum comfort. The only range that keeps design coherence in all its functional solutions, including its wide range of KNX sensors, enabling intelligent management of atmospheres, achieving comfort, safety and energy efficiency.

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