

pulse

MOVEMENTS IN ARCHITECTURE

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Office & administration

Modern office building in Hamburg

By Jan Störmer Partner

Office time is living time

Enhancing functionality through building automation

A new look for Stadtwerke Essen

Corporate architecture – a visit to Landau + Kindelbacher

ABB



Stefan Camenzind has received numerous awards. In Zurich he designed the Google Development Center and the "Cocoon" office building.

To the point: The future of the office

pulse in conversation with Stefan Camenzind, Camenzind Evolution

Is there a general trend discernible in contemporary office construction? What role does flexibility play?

During the planning phase it is frequently not yet clear who is actually going to be using the building in the future, as was the case with our "Cocoon" project, for example. Nevertheless, we carefully defined the specific needs that are relevant to the building beforehand, which automatically gave rise to potential user groups. More and more developers are coming to realize that it makes more sense to create products which are ideal for a particular user group than to deliver average products. If you make use of intelligent planning practices, you can also easily guarantee flexibility of use in the longer term.

Nowadays, office buildings are simultaneously business cards. What is your experience with reflecting corporate identity in architecture?

Google, for example, gave us no CI specifications whatever. The company placed importance on the working environment not becoming a showroom, but rather somewhere the staff can identify with. Only identification with a company that is actually experienced can be a sound basis for a constructed CI.

What is the office culture of the future going to be like? And what does this mean for architecture?

One of the key factors decisive in a firm's success is the level of its innovative power. In order to be innovative you need a corporate culture that consciously promotes this, and a working environment that makes it possible. Google is an example of this, although this does not mean that every company needs slides and egg-shaped conference rooms. Rather, what we need is the application of project procedures that offer corporate cultures optimal solutions.

What influences and changes is the working environment going to be facing in the near future?

We are clearly observing an individualization of our society and as such of the working world as well. Scientific research has revealed that a working environment which is designed accordingly can have a positive impact on innovation, cooperation and concentration. So in the future we will be offering employees all different kinds of offices which they can use as a team or individually.

Given the difficult economic situation, how would you rate the chances of innovative office buildings actually being built?

Economically difficult times are actually an ideal stimulus for innovation and change. In this sort of environment new office buildings only make economic sense if they are trailblazing and offer the tenant value added.

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The office as event space and source of identity: there is room for 60 staff members in the conference room König + Vearncombe Architekts designed as a floating spaceship for the Hamburg multimedia agency fluxx.com.

Office time is living time

Office construction today can mean anything from the production of no-profile speculative objects to the design of attractive, befitting offices that promise significance for companies, from the provision of cost-effective, norm-adhering spaces to comfortable office landscapes with a feel-good factor. Our author describes what influences are currently impacting on the scene and provides an outlook.

By **Falk Jaeger**

Architecture is once again something you can boast about, architecture contributes to corporate identity, signature architecture is an important factor in company marketing – or so popular architecture magazines currently claim. The consensus among architecture critics is surprising and attests to a perception which focuses on the highlights of architectural production. What has been produced recently in the way of characterless office architecture up and down the country speaks a different language, namely that of anonymous profit-making, as the majority of office space is not commissioned by the users-to-be, who have a genuine interest in the quality and appearance of the architecture, but is built and marketed by investors. Several buildings have already changed owner once, even several times by the time they are completed. Many are planned and built without a future user even having been defined. There are two serious disadvantages arising from this practice. On the one hand the quality of the architecture essentially suffers because an investor is not interested in perfecting details and inspiring spatial effects and innovative lighting effects, nor is he concerned with the building's sustainability and long-term operating costs. On the other hand a property for rent or purchase

will never match the needs of the user in terms of layout and spatial design, nor will it be suitable as a befitting head office that is a source of identity.

Striving for corporate identity

As such the confusion displayed by the Deutsche Bahn, for example, which initially planned its headquarters in the main station in Berlin, then moved to the Trias triple tower on Holzmarktstrasse, and subsequently to the Sony Center at Potsdamer Platz, is incomprehensible. On account of high rental costs a new building was planned next to the train station and then abandoned, but the new Management Board now wants to move into the buildings above the train station after all. However, identifying too strongly with a building can be a disadvantage in times when even major companies with long-standing traditions are going bankrupt or being sold, for example when on a high-rise in Düsseldorf, which for decades sported the Group name Mannesmann, the name suddenly had to be changed to Vodafone. Nevertheless, not only the distant past, reaching way back into the 19th century, but also and the most recent decade have shown that the most spectacular, innovative and qualitative office buildings for a company's



ESA Architects, London / Simon Atkinson, Splitterwerk / © Nikolaos Zachariadis (r.)

own use have been commissioned either directly from renowned architects or through competitions. Striving for an appropriate self-image, corporate identity and distinctiveness is the predominant driving force behind this trend.

Space is currently the most valuable office commodity

Administrative centers such as the *dvg* in Hanover, built in 2000 by Hascher + Jehle, the Swiss Re in Munich, built in 2001 by Bothe Richter Teherani, and the Lufthansa Aviation Center in Frankfurt, built in 2007, are still not outdated nor have they been superseded. These are companies that have thought beyond their corporate identity and wish to bind their highly-qualified employees to the company by offering a pleasant working environment. The provisions they offer consist mainly of the most valuable commodity one could possibly indulge staff with and of which these projects have more to offer than others: Space. Enough space to spread out and be able to choose how close you would like to be to your colleague, space for communication, movement and relaxation. All those office buildings which we admire and whose users we envy feature this freedom of space, which goes beyond the standardized cell office and narrow corridors. The others, in particular if we are talking about typical investment objects, are determined by the flexibility called for. Landlords

order spaces which can be as diverse as possible. The possibility of dividing the buildings and floors into separately rentable areas is also a common demand. Once these parameters are combined, the most obvious result is a 14-15 meter wide footprint which can be organized as single, group or combination offices. Sets of triple offices, usually with an artificially lit inner zone, and whose 15-18-meter footprints are more economical, are built less frequently. The size of the 400 square meter units stems from the maximum possible size of the fire area. Larger areas have to feature more complex fire prevention measures, resulting in increased costs, and as such are not generally an option.

Flexibility is demanded of architects

Just how the surface area is to be divided up is often not decided until the planning stage, or even when construction is already under way. Architects are also required to demonstrate flexibility here. Companies usually ask corporate developers such as the Quickborn team, P.O.T., Congena or others to advise them about the design of the working environment; these developers attempt to decide on an individual basis which type of office offers the highest efficiency for the client. They typically do this during the construction phase – and may on occasion, without

Gray monotony does not look like this: In Leeds ESA Architects ensures a lively form of spatial division. In the "Frog Queen" building in Graz, Splitterwerk makes demands on the observer through the interplay of inside and outside.



any qualms whatever, change their opinion during the process when it seems opportune. In an environment such as this architects have a difficult time developing good concepts and getting through the rounds of cost reductions which generally prove to be necessary without sacrificing quality.

Intelligent energy management

What has become the favorite of organizers in recent years is the combination office, in which individual cells and meeting rooms can be created. Given that the partitions are generally glass, staff members can remain in contact, although individual screens are also possible. In other words, a large room with flexible spatial division – the room-in-room concept, which offers openness and transparency and a high degree of flexibility in terms of the way the building is used. The 1960s-style open-plan office is no longer in demand, as work organization units have become smaller. Disturbances and limitations for staff with regard to noise, ventilation and air conditioning problems proved to be unavoidable. Nowadays, large offices, now referred to as open-space, only function with innovative furniture and targeted noise-reducing measures. In any case, advances in office construction are predominantly technical these days. Intelligent energy man-

agement, individual lighting and ventilation and other technical achievements are being developed. A good example of intelligent spatial division in a flexible office footprint is the Paul Wunderlich House in Eberswalde. Built by GAP Architects in Berlin and officially opened in 2007, the district office is not only considered a prototype of an ecological office center with exemplary energy efficiency, the oblique irregular footprint of the four linked buildings manages to conceal the necessary serial simplification and produce highly individual-looking rooms. Facing the middle zone, cells and smaller office sections are made entirely of glass, although the brightly painted lintel provides a feeling of spatial separation. The spatial diversity of the storeys literally inspires masterful treatment of the areas. The three inner courtyards boast different climates and as such different plant life. At the Lufthansa Cargo Center at Frankfurt Airport the atriums are more intensively integrated in the spatial program and ventilation system. They effectively serve as a substitute for the outer world, as given its location the building has to be extremely well protected from noise. The glass recesses in the comb-shaped building feature gardens boasting different climate zones. The middle spine of the building is a multifunctional access area with a mall in the basement, curved stairway, areas for taking breaks,



Hans-Georg Escri/Lufthansa

Nature welcomed in: The Lufthansa Cargo Center in Frankfurt/Main (above) boasts gardens from a wide range of climate zones in its middle, while the dvg building in Hanover* (middle) is reminiscent of a terrace in a greenhouse. Below: An information station designed by 4A Architekten in the BCB Business Center in Plzen.

*Hascher + Jehle / Heinle, Wischer und Partner, Planungsgemeinschaft dvg, Berlin



Svenja Bockhop, Berlin



4a Architekt/Ales Jungmann

and a view from all sides into the gardens and office levels. More communication and awareness of architecture during work time is hardly possible – or is it after all? Beneath a giant glass wave the dvg building on the periphery of the Hanover trade fair grounds resembles a terrace construction in a greenhouse. Numerous workspaces are positioned on these terraces, outside as it were, with a view of the garden. It is one of the few administration buildings to be thoroughly conceived as a nomadic office. Most of the staff fetch their cabinet-on-wheels in the morning, choose the most appealing work space and just plug in their laptop and telephone (early-birds have a distinct advantage here). There are few companies which are structured in such a way that they can work with this sort of system – in which a good 20 percent of built working space can be saved due to vacancies caused by fluctuation, sickness and work off the company's premises.

Fostering the emotional factor

Whereas office organization has changed little over the past 15 years, high-end office buildings reveal as their characteristic special fittings that include communal areas, zones for taking breaks, espresso lounges, cafeterias, canteens etc, as well as green areas. When, for example, Swiss Re moved from Munich to Unterföhring in 2001, BRT Architekten wanted to take the English Garden as well. The individual edifices were erected over laid-out gardens and surrounded by a pergola with rampant green foliage, which blocks out the unattractive business park. The committed architects' objective was to foster the emotional factor, to regard working hours as living hours, which ought to be made pleasant, and to champion employees' identity with the company. Striving for this goal was easier when the economy was booming. In the current financial crisis architects fear English or American conditions, in which project managers with just figures in mind win out to the detriment of quality. An investor such as Dieter Becken in Hamburg, for whom BRT Architekten has designed such remarkable projects as the Doppel-XX, the Berliner Bogen, and the Deichtor office building, is a notable exception. Becken trusts the architects and in return gets high-class architecture, which to date he has always been able to sell at a profit. Everybody else really ought to do the same.

Prof. Falk Jaeger studied Architecture and History of Art in Braunschweig, Stuttgart and Tübingen and has been a freelance architecture critic since 1983. Following teaching appointments in Berlin, Braunschweig and Dresden, since 2000 he has been Professor of Architecture Criticism and Architecture Theory at the Technical University in Dresden.

A lot of space and a working environment, which, thanks to a light installation by the artist Steven Scott, constantly changes its appearance. 3XN designed the entire Deloitte HQ in Copenhagen in line with the open office concept.





Optimum solutions can be achieved through an automation technology integrating all the various trades as a homogeneous system. Hypolux Bank in Luxembourg (top), Reederei Rickmers office building.

Enhancing functionality through building automation

The quality of modern office buildings is largely determined by their functionality and by a convincing overall concept that integrates building services. In this context, flexibility represents an important aspect – in order to do justice to the requirements of any company that is subject to change. Well-planned building automation can achieve this and here the best solution is to have it tailored to the relevant architectural concept by an "integration planner".

By **Prof. Achim Heidemann**

Primarily, what makes a good modern office and administrative building, alongside good and lasting architecture, is functionality. Functions currently under discussion in this respect include high flexibility in terms of changes of usage, bolstering the productivity of staff members and making improvements to the security of a company – as well as low maintenance costs and low energy consumption. These functions are largely fulfilled by the mechanical, electrical and plumbing (MEP) facilities, whose contribution to overall production costs have soared in the past years – and this trend looks set to continue. Nowadays, the percentage of overall production costs accounted for in high-function buildings by the mechanical, electrical and plumbing is in excess of 50 percent.

More functionality through building automation

The basis of functioning systems and equipment in the various trades dealing with mechanical, electrical and plumbing (MEP) is automation technology – or, as it is known in the construction industry: building automation – something without which it is difficult to imagine technical facilities today. In the final analysis, building automation determines the functions fulfilled by building

services and thus the functionality of modern office and administrative buildings. Thus, in order to guarantee that the desired building functions are available at an optimum level and that they will operate without faults, particular attention must be paid to building automation. Initially, the layman is confronted with a confusing jumble of specialist terms: building automation, room automation and building system technology are terms that, in principle, refer to the same basic notion, i.e., the automation of MEP systems. These terms came into being in different trades, were brought to market via different sales channels and have been characterized by qualities varying from good to questionable, depending on provider.

Planning overarching concepts

Optimum solutions can be achieved if the automation technology is treated as a homogeneous, integrative system, and considered overarching with regard to all the various trades involved in the MEP systems. However, as a rule, this does not happen because it is still the case in the construction industry, which traditionally thinks in terms of individual trades, that the different systems are planned and implemented by the various technical trades. In other



words: given the way that automation technology is planned and implemented in most cases today, it cannot work correctly. Accordingly, in order to be able to exploit the full potential of modern automation technology with its serial Bus technology as a medium for exchange of information, an architect must ensure that the specialist planners involved come up with an overarching concept for the building automation. He will find this easier if he consults a coordinator, for example, a specialist in integration planning.

Saving usage costs

It goes without saying that automation also incurs costs. Accordingly, it is recommended to begin by establishing how much the desired functions are actually going to cost before embarking on planning. Here, both the production costs (building costs) and the subsequent usage costs (operating costs) should be taken into account since high investments are often balanced out by savings in usage costs. In this context, it is a good idea to create a priority matrix which allows an individual, personal requirement profile to be drawn up, together with the investor or users. Today, the building automation function is, almost with-

out exception, devised using software. This has given the building trade a new dimension because the creation of software differs considerably from the usual methods of proceeding "on site". Software engineering methods need to be used in order to avoid the kind of fiascos that a number of architects have had to experience painfully.

Basic functions for optimizing energy

Furthermore, it is important to start the planning with the space aspect. The sum of the number of application functions in the individual rooms then forms the requirements for the building services facilities, for example, when providing media. Here, choosing the individual application functions wanted for the room in question using the above-mentioned priority matrix is recommended. Basic functions include handling the air in the room (heating, cooling, ventilation), the light in the room (lighting, anti-glare protection, light direction) security (intrusion, fire, access), operation (switches, displays, touch screens, PCs), media technology (video, audio). On top of this, something known as function macros can be established, for example, the interplay between different basic functions for optimizing energy. In this example the automation would

Intelligent building control enhances the functionality of modern buildings: Bellevue Jurmala, Riga (left), office floor, Braun + Voigt, Frankfurt (center), Arken-Museum of Modern Art, Copenhagen



Klaus Frahm/antur, Ralph Richter (M.), Dirk Robbers/antur (r)

involve collecting various parameters and influencing energy consumption using an algorithm. These parameters could be: the presence of a person in the room or the company, a predetermined room temperature, outside brightness, the altitude and intensity of the sun, the positioning of windows and the time. It was possible to demonstrate by means of a study on a real object, the Hohenwart Forum near Pforzheim, that energy savings of over 50 per cent are possible.

Flexibility in changes of usage

In addition to this, the use of Bus systems in combination with appropriate hardware and software allows flexibility with regard to changes of usage to be increased considerably. In cases of conventional execution where changes of use would mean that equipment would have to be replaced or converted, cables laid and subsequent building work would be necessary, as a rule, with modern building automation all that is necessary is a simple change to the software. The advantage for the user: considerably lower conversion costs, less impingement on the day-to-day business processes and a considerably shorter conversion time. However, one current shortcoming is that there is still no

generally accepted method of clearly specifying room automation functions in the planning and thus for creating clear guidelines for calculating and implementing room automation solutions. For some years now, a guideline commission set up by the Association of German Engineers has been looking into this topic and has come up with a series of guidelines that will close this loophole. VDI 3813-2 looks set to be published in summer 2009.

The guidelines contain the following comments: *"Coordinating building automation including room automation with the classic building services trades (MEP) and, increasingly, technology oriented building trades (e.g., windows/facades/sun protection, locking systems ...), requires a special qualification in premises planning (in accordance with the fee structure for architects and engineers) or the use of an integration planner."*

Prof. Achim Heidemann is CEO of Heidemann & Schmidt GmbH (www.integrationsplanung.de). He is also Professor of Energy and Building Automation at the University of Albstadt-Sigmaringen's Facility Management Faculty.

Clear view of the city

Hohe Bleichen – that is in itself a good address in Hamburg. Here the architects at Jan Störmer Partner have created a striking office building, which reveals its true strengths on the inside.

By **Heinrich Wähning**

The continued growth of Hafencity is currently attracting public attention, yet there has long been a lot of building activity in downtown Hamburg as well. A number of new buildings have already sprung up west of the Hanseviertel district, entire streets have been redesigned and as such now have a new profile, elevated on average by two storeys. The office building Jan Störmer Partner built for Quantum AG in Hohe Bleichen, the exclusive street of office and commercial buildings, with its eight regular storeys and a penthouse, fits into this context perfectly and, with its block-like appearance, makes for a striking picture. So it did not take long at all for a Hamburg-based shipping company with a long-standing tradition to express interest in occupying the premises, instead of choosing a location on the Alster lake harbor or near the docks.

Lively finish

Our first impression is dominated by the large, stone-framed fields of the façade, featuring strips of windows and aluminum balustrades across all storeys. The architects' decision in favor of a large façade becomes clear when the immediate vicinity is taken into consideration



Reif Buscher





Jan Störmer, Partner; Ralf Buscher (r)

where, for instance, the colossal shape of the former mortgage bank diagonally opposite, a Neo-Renaissance building dating back to 1897 with an intricately structured sandstone façade, sets the tone. The new building, with its structural geometry, also responds to the passages of the directly adjacent Hanseviertel, with their characteristic brickwork. The decision with regard to the type of material was made independently. Now for the real innovation: fiber reinforced concrete. As the fiberglass reinforcement does not require an anti-rust coating, the architects were able to reduce the thickness of the panels to just 22 millimeters. In this way, they were able to apply large panels, and produce L-shaped corner cladding. The weatherproof coating thus remains light, and the lively effect of the concrete finish is preserved. Despite the relatively small surface area it can nonetheless spread out sufficiently, yet it is the indents in the structure occasioned by the context that

prevent an impression of arbitrariness emerging. The new building has been constructed on top of the previous building's two-storey underground car park, with space for 60 cars, as in the case of a completely new building only 30 would have been allowed. This explains the position of the pillars on the ground floor, which take into consideration an existing elevation in the floor and the solid supports of the existing structure, whose expansive cladding in the foyer and lounge sensibly separates the foyer and lounge. Boasting an inviting design, the canteen is also located on this level and opens out onto the courtyard with a terrace. Deep beams between the ground floor and first floor create an optimum structural connection with the new office storeys.

Atrium ensures bright workstations

The footprint is a successful synthesis of the typological demands of an office building and the given features of

The glass inner courtyard enables observers to see the entire depth of the storeys, thus creating transparency. Large, stone-framed fields shape the façade.



the location – all the offices have natural light and moreover, whenever possible, have floor-to-ceiling windows on the corridor side. The structure evolves from a cube on the street-side to a white plastered wing in the courtyard with several strips of windows. Although it is clear that a large proportion of the budget was reserved for the visible side facing the street, the rear does not appear to have been neglected. The residents of neighboring buildings had requested that they not be confronted with a dull mass. To this end the architects took a simple measure with a two-fold effect: They added balconies to the front of the wing, surrounded by the continued strips of balustrades on the longitudinal side. This added a dynamic element to the slightly acute-angled diagonal view and also lent the interior a spatial quality all of its own. While outside the structural bodies contrast, the interior rooms follow each other in unbroken continuity; curving walls mediate between

the different directions. And the architects knew how to translate the conflict between them into the design's greatest success: in the center of the building an atrium opens up, whose closed surfaces are clad with orange aluminum panels. It rises up over the conference room in the center of the first floor, which was deliberately left window-less, and supplies all the office levels plus the meeting rooms directly adjacent with daylight. Moreover, the special, shimmering coating on the panels further intensifies the alternating moods of the natural light. The form and color largely dispel the atrium's resemblance to a chute. In wet weather, the dark, black stone floor creates interesting mirror effects.

Views of the entire depth of the building

It is primarily on the horizontal plane, however, that the entire building benefits from the light, which serves to





Layout in 3D



Ralf Buscher

The top managers' level opens out onto a spacious roof terrace affording a breathtaking view of the city of Hamburg.



Cross-section



View from the west

The atrium, clad with orange aluminum panels and with its curved glass sheets, ensures the office corridors receive plenty of light. The colorful panel coating intensifies the alternating moods of daylight.

provide a through view. As soon as the shutters in the meeting rooms are opened they afford a view of the whole depth of the building, from the courtyard to the street. Yet the decisive gain from the layout, which is certainly economical, is the fact that the atrium repeatedly gives observers interesting perspectives. The key to controlling the artificial light sources, shutters and other electronic devices is hidden in a simple closet. BUS technology controls the electronic conference elements and air conditioning. Thus the artificial illumination of the corridors, outside area and façades is linked to the amount of sunlight entering. Executives meet on the spacious attic level. The interior fittings are pleasantly subtle, and the blue carpet creates a feeling of cool elegance. Space is the true luxury the office building on Hohe Bleichen offers, and those who enjoy the breathtaking view from the rooftop terrace have no need for do not need a harbor in the immediate vicinity.

Project partners

Client

Quantum AG, Hamburg

Architects

Jan Störmer Partner, Hamburg

Building technology

Ing. Gesellschaft Ridder und Meyn mbH, Hamburg
 Integrated products by ABB/Busch-Jaeger:
 KNX System, Control panel

Building volume

11,300 square meters

A new skin of light, glass and wood

The architects from Koschany + Zimmer have developed a conversion plan for the Stadtwerke Essen building that is a sensitive and imaginative symbiosis of the old and the new. Confronted with the existing structure, they combined it with materials such as wood and glass, and thus gave the spaces an undreamed-of touch of elegance, charm and transparency.

By **Lasse Ole Hempel** Photos **Daniel Sumesgutner**

“We sought to combine the old and the new by treating them as layers,” Petra Kuhlmann, an architect from Koschany + Zimmer, commented. In 2003, Stadtwerke Essen AG held a competition for the realization of the conversion of its head office at Rüttenscheider Strasse – and Petra Kuhlmann and her colleagues won. Their concept was to preserve the historical fabric of the building and keep it visible while combining it with new elements such as to give everything a light and simultaneously official ambiance. The project was completed in 2006, after in part complicated intervention in the existing building. In addition to the entrance hall and the customer information center (KIZ) on the ground floor, the architects also infused the lobby, the hall and conference areas on the executive level with new splendor – likewise incorporating two new covered porch areas.

Openness and upbeat feel

The Stadtwerke expected the conversion to give the complex a modern and, above all, transparent exterior tangible even from the street and chose the KZA proposal, as the opinion was that it best conveyed a citizen-friendly and

open image. The architects’ concept hinged on the interaction of glass and wood with light to visually upgrade the already existing layer and give the interiors a customer-friendly character. Thanks to the projecting canopies, which set the overall tone as if they were light-filled sculptures, and a strip of light that runs horizontally along the length of the main façade, the new feel is manifest even on the street side. The architectural combination of different layers spawns a sensitive and yet clearly visible process of transformation. The visitor encounters a familiar and yet altered picture. Specific materials are used as recurrent elements and thus visually link the different spaces and floors with each other.

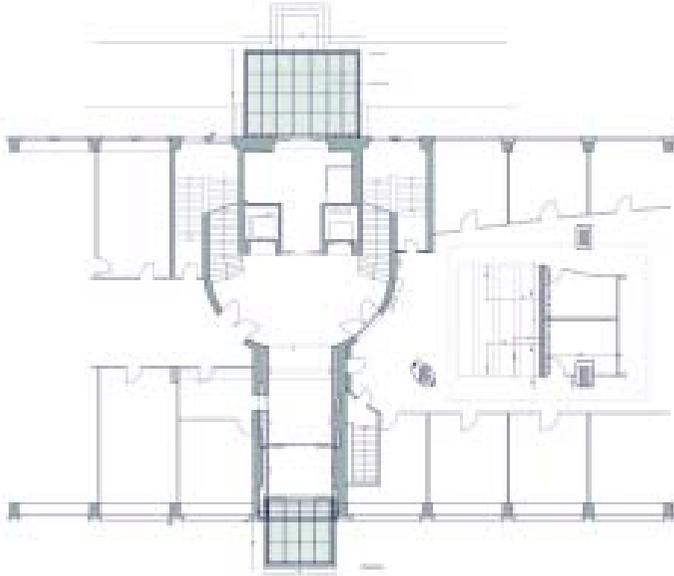
Layers of light and information

The new “skin” that shrouds the extant edifice mostly consists of dramatically back-lit glass. Petra Kuhlmann refers to it as a “layer of light” to which a “layer of information” has been added. Words and images have been printed on the surfaces that quite literally highlight the Stadtwerke’s core competencies in an exemplary way. In addition, the architects drew on the client’s signal logo colors – and

In the entrance area, light elements set the creative tone, back-lit inscriptions list the Stadtwerke’s core competencies.







Layout of ground floor

Through the use of recurrent materials, rooms and floors are linked with each other. Also the visitor and conference areas have been given a modern and customer-friendly look.

move from shades of blue and green to yellow for the design of the outer and upper floors.

Reception area doubles up as control center

On entering the Stadtwerke building, the reception desk with its modern Swiss pearwood design is the first port of call for every visitor. As a central communications island it is of particular importance, a fact that is also expressed visually. Hence, the reception desk was likewise given a superimposed, partially lit skin of glass which adheres to the principle of the “second layer” and gives the area an open and elegant touch. The reception also houses a central control system that regulates the light and temperature in the entire building. The ABB/Busch-Jaeger control panel also plays a vital role in the meeting area, delivering a light, indoor climate and controlling the complex conference technology – these functions come together at an interface from where they can be easily regulated. A high-end stereo system by Bang & Olufsen as well as a large 47" and a 69" screen are connected to the control unit.



As a central communications island, the reception desk plays a special role within the concept. It is also home to a central, electronic control unit to regulate the lighting and climate in all rooms.

Project partners

Client

Stadtwerke Essen AG

Architect

Koschany + Zimmer Architekten KZA, Essen

Specialist planners for technical automated services

Ingenieurbüro Dohrmann, Essen

Building technology

Integrated products by ABB/Busch-Jaeger: KNX system, control and operating elements from the Carat and future linear series, B&O Bang & Olufsen color control panel

At the new harbor

Cologne's Rheinau Harbor is transforming itself into an attractive location that companies are flocking to. It is also an appropriate environment for new office building Pier 15. Both the building's shape and the materials it uses are reminiscent of the history of this former cargo-handling center. Completed in 2008, the building neatly expresses the aesthetics of the römer partner studio: clear lines, a light facade, no unnecessary embellishments and a fine feeling for the basics.

By **Ralf Johnen** Photos **Jens Willebrand**

“We start with the simple things,” is how Bernd Römer defines the philosophy of his Cologne-based studio. “And we then see them through to their conclusion. In this context our focus is always on finding a location-specific solution.” At the recently gentrified Rheinau Harbor this philosophy was applied to an office building which goes by the name of Pier 15. At first glance, the building appears sober and elegant, but upon closer inspection it does reveal playful elements. One challenge was complying with the urban planning requirement of leaving open a generous thoroughfare on the site. This meant that the building needed to be split into two separate wings, accessed via an outside staircase. Both building corpuses manifest a trapezoid footprint and are connected by a common base that offers protection from flooding. Also striking is the fact that the south wing of the ground floor tapers in slightly, which means that the storeys above it jut out.

A playground for creative architecture

However, Stephan Kögeler sees these design elements as a minor point. In his opinion, what is really special about Pier 15 is without doubt the location. The 37-year-old archi-

tect has been Römer's partner for two years now and you can see his point. The east-facing side of this property comprising some 6,000 square meters of utilizable space opens out onto the quay walls of what used to be a busy cargo-handling center and where now yachts bob up and down. Indeed, the whole district has developed into a playground for creative architecture – the immediate vicinity is simply overflowing with extravagant premises, one next to the other: Hadi Teherani and Alfons Linster's Kranhäuser (“crane houses”) and the RheinauArtOffice where Microsoft resides. As well as the gutted warehouses that go by the name of “Siebengebirge” and have now become the premium address for loft apartments.

Portuguese stone and functional flexibility

In this environment every architectural statement is intended to be well-considered. Römer und Partner see the choice of material for the facade as a reference to the district's time-honored industrial buildings but with a new splendor: what they use is a comparatively coarse, light Portuguese limestone with a natural finish that has been made so pliant with press joints that there are no ugly

The light Portuguese limestone contributes to reminding people of the industrial buildings in the former freight port. At the same time, Pier 15 fits in with the surrounding neighborhood of glass office buildings.





transitions. Otherwise, the design for the six storeys focuses very much on the facade where open and closed elements alternate in narrow rectangles. And it is only where the demands of the interior design require it that Römer interrupts this rhythm, allowing in large expanses of glass. The interior is largely dominated by the notion of functional flexibility. “Today, everybody wants open-plan,” comments Kögeler. However, as he points out, nobody can predict whether even in the near future, companies will again start preferring two-man offices. Accordingly, the entire building is equipped with a center-to-center grid which means that partitions can be put up 1.35 meters apart. The building also conforms with prevalent hierarchies and the heights of its storeys stand at 17.50 meters: on the ground floor there are reception rooms with a small canteen and on the storeys above this ordinary offices with the senior management level under the roof. Pier 15 was developed by Günter Fischer Gesellschaft für Baubetreuung in Cologne; one company, ifb, established in 1989

by Cologne-based entrepreneur Horst Will and with a payroll of 370 staff members, is the sole tenant. The company specializes in business consultancy coupled with IT know-how. As Kögeler explains, it is of primary importance that the server works. One aspect of flood protection is thus that all the important technical facilities are located on the first floor. The building boasts a KNX system which allows the lighting and the electric blinds to be programmed and controlled specifically. There are presence detectors throughout the building to ensure that brightness levels are correct when people are working, this also contributes to energy-saving.

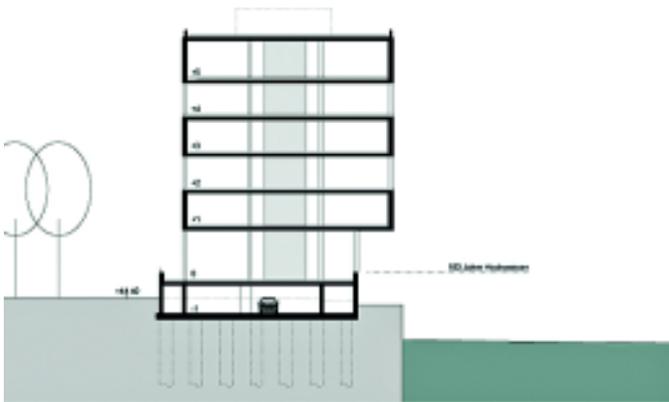
Taking his inspiration from Bauhaus

Pier 15 is the second striking building with which Bernd Römer has immortalized himself at Rheinau Harbor. In 2005, the “Wohnwerft” was completed, a combination of residential and business property directly on the riverbank. This building has permanently changed the face of

The urban planning requirement of leaving a thoroughfare open meant that the building had to be split in two. However, there is an outdoor staircase connecting the two separate, uniformly designed wings.



Layout



Cross-section



the cityscape on the other side of the Rhine. And here it is clear why Römer is not ashamed to admit that his work is inspired by Bauhaus – “even if this might sound a little hackneyed.”

Urban planning still to be optimized

For the architect Bernd Römer, who himself resides in an office building right by Cologne Cathedral, Rheinau Harbor is currently the only major site in this cathedral city where architectural standards are being set – standards, for which Cologne is even garnering national approval. But this does not mean that there is no collective interest in continuing to optimize the situation when it comes to urban planning. At the moment, a railway line and Rheinuferstrasse, a busy thoroughfare, still separate Rheinau Harbor from downtown Cologne and the south city. In order to complete the project what is needed is exactly that kind of urban planning remedy that the master plan recently developed for the city by Albert Speer is promising.

Project partners

Client

Günter Fischer Gestaltung für Baubetreuung, Cologne

Architect

römer partner architektur, Cologne*

Building technology

bähr ingenieure gmbh, Cologne
 Integrated products by ABB/Busch-Jaeger:
 KNX system , presence detectors,
 weather and touch sensors.

*until June 30, 2007: Oxen + Römer und Partner



Zaha Hadid Architects

Working in the office of the future

Even in periods of economic difficulty, innovative working environments can be created that follow completely different architectural approaches. Be it gargantuan proportions or sensible efficiency, it seems that the sky is the limit for these ideas. In fact, we can say for sure that architecture is in for an exciting ride.

Zaha Hadid Architects: Port House, Antwerp

It may well be due to the iconic character of her design for Antwerp's new Port House that the Iraqi-born star architect once again came first in a prestigious international competition. The Antwerp Port Authority needed a new headquarters and wanted to bring all its staff, currently distributed across several buildings, together under a single roof. Zaha Hadid's concept proposed a 46-meter-high and 111-meter-long structure as an on-top addition to the listed HansaHaus that would provide space for 500 employees. Resting only on three concrete piles that are sculptural in character, the new section almost seems to hover and is fast becoming the Belgian port city's new landmark. The edifice faces south, thus acting as a "window to the city" and clearly denoting the point where the port begins. The building is accessed via three elevators and stairwells concealed within the concrete piles. The building's entire outer appearance references Antwerp's diamond industry. The outer shell consists of glass triangles which are either transparent or designed to be reflective. They do not form a flat surface, but rather are positioned at an angle to each other, leading to alternating light effects.

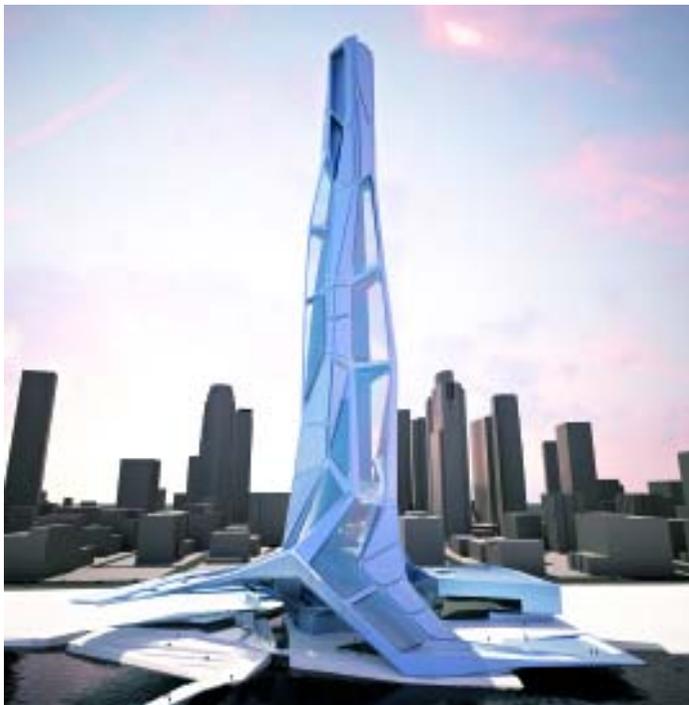
Bernhardt + Partner:**Haus der Astronomie, Heidelberg**

Darmstadt-based architect Manfred Bernhardt has left the good old observatory far behind him. In his design for the new Haus der Astronomie (House of Astronomy) in Heidelberg, he positioned the lecture hall and projection dome at the center of a complex that E.T. would have loved. He used cutting-edge technology to represent phenomena such as black holes, red giants and white dwarfs in the glass and concrete galaxy. "Spiral arms" housing offices, an observation terrace for the stars, and an astronomy school circle the core of the building. Here, at the center of the action, children and young people are introduced to the secrets of science, teachers can attend further training courses and interested members of the public can expand their knowledge in evening seminars. The celestial bodies are even used to cover internal energy requirements. The primary celestial body, the sun, provides energy and planet Earth heat. In close proximity to the Max-Planck-Institut für Astronomie and Landessternwarte (State Observatory), the miniature galaxy will be ready to beam up visitors from 2011.

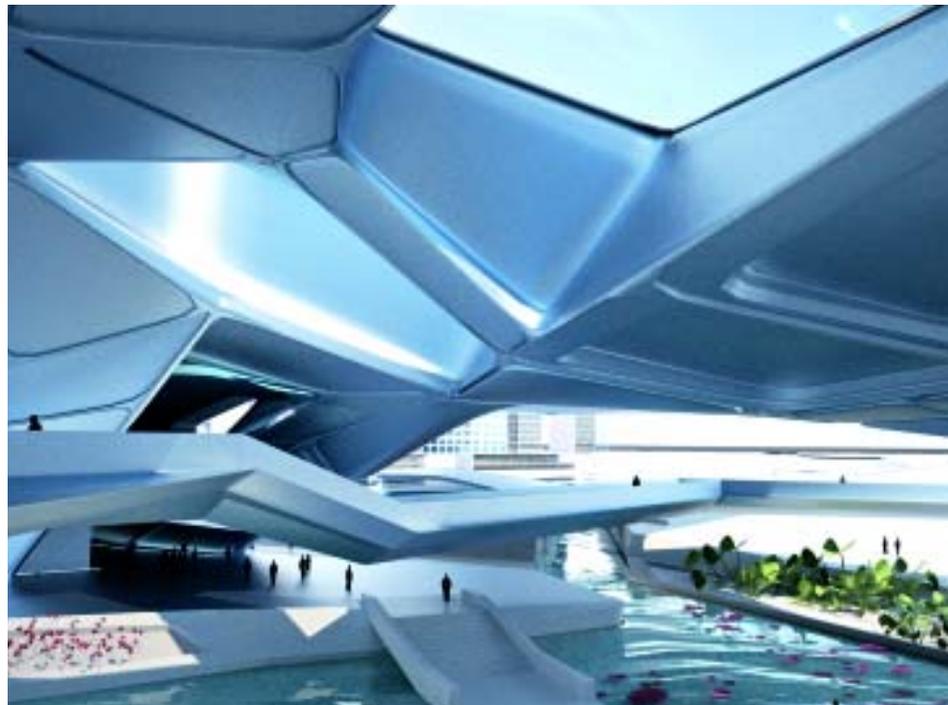
Architekten Bernhardt + Partner

**Emergent Architecture: Cheongna City Tower, Incheon**

"Taller, faster, further". This could be the motto Emergent Architecture, a Los Angeles-based young US studio, took for its design for an office tower for the South Korean port city of Incheon that rises up 400 meters into the sky. The design's special features include the supporting steel structure, which does not brace the building from the inside, as is usually the case, but rather is outside, like that of a shellfish. Three main frame sections bear the load, and the structures are designed to be more delicate or solid depending on the forces actually impacting on the building. The resulting structure thus reflects the thrust of the load-bearing vectors. In terms of the interior, this means great scope in the design configuration for each storey. The plans include winter gardens with a ceiling height of 50 meters and an observatory.



Emergent Architecture





J. Mayer H.

J. Mayer H.: Court of Justice, Hasselt

In Medieval Europe, the administration of justice often took place under the protection of a large tree. So why not design a court of justice with reference to this tradition? The consortium of studios J. Mayer H. Architekten (Berlin), azo Architekten and Lensoass Architekten from Hasselt, which won the competition tendered in two parts by the Belgian city of Hasselt in 2005, not only drew its inspiration from the Middle Ages, but also references the client. After all, a tree also adorns the coat of arms of the city, which is located 30 kilometers west of Maastricht. There are also allusions to Art Nouveau, which forms an important part of the region's cultural heritage. A closer look also identifies allusions to the compact buildings of the steel industry which once set the tone here. The Court of Justice is planned to be inaugurated in February 2011, as part of a completely redesigned area around the main train station. A park and municipal apartment blocks will accompany the new, iconic complex, which consists of three interconnected structures and offers a free interpretation of the "twin tower" concept.



Behnisch Architekten Stuttgart

Behnisch Architekten: Unilever, Hamburg
 Slanted, sharp angles and inclined surfaces – the new Unilever Deutschland headquarters on the banks of the River Elbe in Hamburg seems solid as a rock. This choice of formal idiom not only has an aesthetic, but also a statistical background. For if you have ever taken a walk in Hamburg's Hafencity, you will know how strong the breeze can blow in your face. Instead of confronting the wind head on, the Stuttgart-based architects decided to give it as little exposed surface as possible. The building is conceived for 1,000 employees and is being constructed in a prominent position between the Hamburg Elbe Philharmonic Hall and the shipping terminal. The lowest floor is open to the public and provides shelter for storm-hit amblers.

MAD: Fake Hills, Beihai

The creative minds at MAD from Beijing are considered pioneers of the new, experimental Chinese architecture scene. Their mobile Chinatown star, which they presented at the last Venice Architecture Biennial, is unforgettable. Now, not only do they set out to devise impressive buildings, they also seek to create an entire mountain range. Instead of mobile architecture, they are currently building the “Fake Hills” in Beihai: giant office and residential complexes intended to adorn the coastline as an artificial mountain range. Beihai, a coastal city in the very south of China, is globally considered one of the fastest growing urban regions. The population doubled there between 2001 and 2006. In order to create as many new jobs and sea-view apartments as possible, in Beihai the architects are planning to build up 430,000 square meters of floor space into concrete mountains. The architects at MAD talk of a current advancement of traditional Chinese architecture with a strong reference to nature. It is perhaps the architects' optimistic faith in progress that ensures the “Fake Hills” project currently reminds us more of comic book pictures of a hilly landscape than real Chinese countryside.



“To a certain extent we see ourselves as bespoke tailors”

Munich-based Landau + Kindelbacher Architekten has been successfully designing office and presentation spaces that reflect its clients' corporate philosophy for many years. A clean aesthetic concept, that hinges on transparency and elegance, has become the architects' trademark. *pulse* spoke to Gerhard Landau about his design philosophy.

By **Lasse Ole Hempel**

Corporate architecture – for Gerhard Landau this entails transforming a corporate philosophy into built space. Together with interior designer Ludwig Kindelbacher, he has been running his own studio since 1994, which now has over 30 staff members. In their various multi-award-winning projects, the architects bring a reduced, clear and meticulously planned formal vocabulary to bear.

Corporate architecture is a key focus of your studio. What in your opinion are the challenges in this field?

First and foremost we always seek to understand the history of the company in question and where it wants to go. In reality that means: listen carefully. That said, sometimes it is not all that easy to meet the important decision-makers. After all, especially in large companies, there are many people who determine corporate strategy. And on the various levels of the company hierarchy, profiles are of course also watered down, because some decisions are made according to a political agenda. The colors and images and architecture, that is our handiwork, but understanding the corporate philosophy is a very different kettle of fish and now and again proves to be the true challenge.

Do you therefore first engage in a whole series of intense discussions for this analytical process?

Yes, to a certain extent we see ourselves as bespoke tailors. These discussions are very important for us and are a little like workshops. We interact with the client in very long sessions to produce a strategy to realize his goals. In the end our clients are very grateful for the creativity we invest. We also cast a critical eye on particular things.

You received the German Interior Design Award for the head office you designed for the sports equipment manufacturer KangaROOS in 2008. What was your inspiration for the artificial sky, for example, that overlooks the conference area?

In the case of the KangaROOS head office, we wanted to set the right staged tone in this large conference room (which internally is also known as the “Big show”). It was clear from the very start that what was called for was something other than a plasterboard ceiling. This area used to be the roofless inner courtyard of a shoe factory. When you know that, the idea of transforming it is no longer as off-beat as it might seem, i.e., reviving the former inner courtyard to a degree with an artificial sky.

Landau + Kindelbacher Architekten won the German Interior Design Award in 2008: The sky that appears to hover over the conference area is reminiscent of the old shoe factory, on the site of which the KangaROOS headquarters was built.





Christian Hecker (l.), Michael Voit (r.)

Representation and staff satisfaction. Do you always aim to combine these two major factors?

That depends. For example, KangaROOS is headquartered in Pirmasens, in what is a structurally very weak region. There we were really able to opt for big solutions as regards space, to produce reception areas, for example, measuring 400 to 500 square meters. The employees' workstations are also very spacious, with wide desks and space all around. It is a very different story in major cities, where the price per square meter is higher and efficiency

is the order of the day. In large, international companies I currently discern a stark reduction in work space, and a strong focus on non-territorial work spaces. This concept foresees no permanent workstation for individual employees. Nonetheless, for me as an architect that means creating an atmosphere in which the employee still feels comfortable and doesn't see himself as just a small cog in a vast machine. This is currently a mammoth task that international companies are setting us.

For one international investor, the cross section of a speedboat was the perfect model for an office building. A structure resembling a prow forms the reception roof, and the stern of the imaginary boat houses an apartment.

When we take a look at your previous projects, we notice a preference for white surfaces.

Yes, for the simple reason that white has outstanding properties and harmonizes beautifully with light. Nothing casts as good a shadow as white. Using white, I can create optimum shadows, maximum contrasts and a fascinating spatial effect.

You have also designed your own studio using very light colors.

The new studio ideally frames our ideas. Thanks to the dominance of white, it becomes a setting for the materiality found inside it. Unlike the photos of it, the rooms are generally full of the materials we are currently working



Classic architect meets interior designer: Gerhard Landau (left) and Ludwig Kindelbacher have been successfully running their architecture studio for 15 years now. There is no clear division of duties between the two.



with. We deliberately opted for an open plan, because it is simply extremely communicative. We also thought about having areas with counters, where you can meet and chat informally. I don't think much of sealing people off in their own compartments, because it does not promote free thought.

Special lighting arrangements have a role in many of your projects. The luminaires you use tend to always be tailor-made.

The lighting market offers only very little for high-grade conference areas. Therefore clients ask for customized solutions. They do not want their visitors to come to Maximilianstrasse and see, for example, the same luminaire they sat under in Frankfurt's banking district. Which is why many clients are also willing to provide a budget for individual solutions in this area.

What significance do you attach to intelligent building management in your projects?

Definitely a great deal. Generally there is more to manage than just lighting. Conference rooms such as these are often fully equipped with media technology. Meaning that all the corresponding control systems have to be in place; the light dims automatically, the blinds lower automati-



cally. And these scenarios have to be programmed and controlled. The video and telephone conferencing area is also very technically complex, for example, in terms of the microphone technology. The company's objective here is to limit the number of hours their employees sit on a plane by using advanced media technology. The trend is clearly moving in the direction of increasingly communicating via video conferences instead of sending personnel all over the world, as was previously the case.

Uncluttered work areas waiting for ideas: When designing their own studio, Landau + Kindelbacher chose an open-plan concept and snow-white, puristic spaces.

The genesis of the modern office

It was modern inventions such as steel skeleton frames for high-rises and the elevator that first made it possible for the world of work to move forward from the early 20th century and increasingly take place inside those four walls we generally know as the office. Our author gives an overview of the most significant achievements.

By **Dr. Susanne Liehr**

Rooms dedicated to writing existed even in ancient times, housed either in large halls or as small cubicles lined up in rows. In society today, which is so strongly rooted in the service industry, most of us spend a large part of our lives at a desk in an office building. Ever since the Renaissance, the development of the modern political and economic system has led to a constant need for space that is set aside exclusively for administration. It was from then on that grand government buildings such as the Uffizi in Florence (started by Vasari in 1560 and only later converted into an art gallery) embodied the power of the authorities. New professions emerged with the foundation of private banks and insurance companies and the expansion of industrial, trading and transport companies. New methods of construction became increasingly popular with the dawn of industrialization in the 19th century. The invention of the elevator (1853) and steel skeleton frames (1884) enabled tall buildings to be built. The first skyscrapers were built in Chicago. The telephone, electric light and the typewriter (1900) made office work easier, and work processes became specialized. In America, the configuration of the open-plan office gained sway, with offices for the managers separated by panes of glass, as realized by Frank Lloyd Wright in spec-

tacular form in the Johnson Wax administration building in Buffalo in 1939. In Europe, construction and employee protection legislation regulated the skyscraper boom that commenced in the 20th century. In the place of deep, artificially illuminated and air-conditioned open-plan offices with no privacy at all and high noise levels, the standard tended to be offices cubicles, with adjustable ventilation and lighting. Office buildings were constructed, to be divided up and rented out at will, such as the Chilehaus in Hamburg, built by Fritz Höger in 1923, and grand company headquarters, such as the IG-Farben Building in Frankfurt – in 1930 it was the largest office building in Europe. In post-War modernity, the office high-rise became a symbol of the economic boom of the reconstruction years, for example, the Thyssen Building in Düsseldorf, built between 1957 and 1960 by Hentrich, Petschnigg und Partner, and the striking office towers designed by Egon Eiermann for the Olivetti headquarters in Frankfurt. From the mid-1980s, the digital revolution set new standards and emphatically transformed the structure of offices. For all the different forms of architectural shells and the new flexibility in the workplace (with its electronic networks in the virtual space), in everyday life the office is still the real place of communication.



1

2



3



4



5



6



1 | 1939 Office building icon: Johnson Wax Headquarters in Racine, Wisconsin, by Frank Lloyd Wright 2 | 1902 Flatiron Building – built by Daniel Hudson Burnham, it is one of the oldest skyscrapers in New York 3 | 1900 The Klein-Adler 2 was one of the first portable typewriters 4 | 1899 Busch eccentric switch 5 | 1935 Desk lamp by George Carwardine: The angle-poise was the first spring tension lamp 6 | 1948 Deutsche Bundespost W48 telephone

Gold

Materials are the soul of architecture. They lend character to buildings and atmosphere to rooms. But what do architects think of classic materials today? *pulse* sought their opinion.

Answers by **ff-Architekten, Berlin**

Even from a distance, the municipal library in Luckenwalde radiates a majestic splendor. Is it really made of gold?

No, pure gold would have far exceeded our budget. Instead, we used an aluminum/copper alloy, similar to that used in modified form for the European 20 cent coin. Even when exposed to the elements, there is no fundamental change in color, unlike many other materials with a high percentage of copper. Nevertheless, the material will develop a patina in the course of time.

Today we still associate gold with wealth and sustained value. Did this influence your plans?

What we first asked ourselves was which materials were at all suitable to clad such a geometrically complex building as this and underpin its sculptural impact. Naturally we wanted to generate the special attention a gold-colored façade attracts. Our goal was to express the conversion of the railway station into a library by means of a significant symbol in a complex urban design context.

Were you personally a little surprised by the effect the material had in the end?

What surprised us most was that at certain times of day the angled walls reflect direct sunlight onto the square in such a way that it forms gold-colored patterns of light on the ground. This is what lends the building its own aura. Despite using all kinds of models and computer animations, we were not able to achieve this effect until the library was actually built.



Luckenwalde has a new eye-catcher with its 'golden' Municipal Library.

ff-Architekten (1), raumprobe





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One system – numerous possibilities for centrally managing window blinds. The blind switch (left) enables local operation thanks to the separate rockers provided for each direction in which the shutters are to extend. The control element IR (center) provides another control method in addition to direct operation, namely via infrared remote control (below). The Busch-Memory control element (right) offers users both direct operation and the automatic lowering and raising of the shutters at specific times. This action is repeated every day at the set times.



New dimensions with ABB/Busch-Jaeger blind management

Ensuring an appropriate indoor climate is becoming an increasingly important feature in office design. An optimum working environment benefits both employees and employers alike. Motor-driven shutters, blinds and awnings provide the necessary protection from the sun, which can easily overheat rooms, and from glare. ABB/Busch-Jaeger blind management is a centralized management system offering greater comfort, safety and economic efficiency. With ABB/Busch-Jaeger's blind management system, users can operate and program blinds individually or in groups.

Variable and reliable – the Busch-Timer®

The ABB/Busch-Jaeger blind management system includes operating functions enabling manual remote control and time management. Alongside complete reliability, ABB/Busch-Jaeger's timer solutions are easy to use, resting on the principle of intuition, and have corresponding automatic functions. For example, the new Busch-Timer® automatically adjust for daylight saving. An additional brightness sensor lowers and raises shutters depending on the degree of sunlight. Thus users can constantly regulate lighting conditions and temperature. The special glass-break detector identifies a broken window pane and immediately lowers the shutters, thus protecting furniture. Both timer versions have an integrated Astro program and the shutters can thus be programmed to automatically lower and rise according to the sun's path. Users can program the shutters to activate up to four times a day, depending on the timer. Using the new Busch-Timer® has never been easier. The time and date are sufficient for the shutters to be activated, and preprogrammed information

ensures the device is immediately ready for use. Moreover, it is very easy to input individual values. ABB/Busch-Jaeger blind management system flush-mounted elements support the grouping of individual shutters. For example, all the shutters at the front of a building can be bundled into a group and controlled by a single brightness sensor. A second group can comprise the shutters at the front of another building, for example, which are likewise managed according to dazzle. In conference and meeting rooms too, the bundling of the relevant shutters into a group ensures efficiency, for example, when a room needs to be darkened for a film presentation. Naturally, when shutters are controlled in groups, normal local operations are in no way impaired. In addition to group management, users can also program a centralized management to regulate all the shutters in a building. The operating elements of the ABB/Busch-Jaeger blind management system are available in all design lines and colors, in accordance with the clients' individual wishes.



With the wind and sun blind switch insert (left), shutters lower in accordance with wind, rain and sun. The Busch-Timer® system (right) impresses with its ease of use and clear user guidance. Busch-Timers® lay extremely flat against the wall.

What special wood was used to make the new reception desk at Stadtwerke Essen?

pulse asks a competition question in every new issue. The winners each receive a book.



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Email: pulse@de.abb.com

Yes, please. I would like to receive 'pulse' regularly, postage free.

Answer

The new reception desk at Stadtwerke Essen is made of

Name

Office

Street

Postcode/City/Country

Phone

Fax

Email



Daniel Sumesgutner (L.), DOM publishers

The prizes:

All correct answers will be placed in a hat, from which ABB/Busch-Jaeger will draw two winners. Each winner will receive either a copy of **Inspiration Office** (DOM Verlag) or **Frank Lloyd Wright** (Callwey). The deadline for entries is October 15, 2009. The winners will be announced in the next issue of 'pulse'. The winners of the last competition are: Wolfgang Luig, Menden, and Phryni Kumbier, Berlin.

Preview pulse 03-2009:

Water and air

From airport buildings to luxury liners – pulse 03-2009 presents architectural solutions from the world of air and sea travel.



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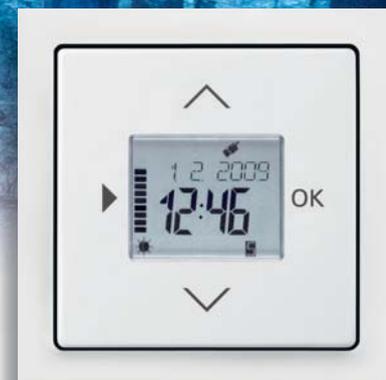
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