

lightlife

N° 08

Architectural «Twister»

BIG – Bjarke Ingels on the
successful interplay of seemingly
contradictory requirements

Smart Working

Innovative lighting solutions through
co-design with Credit Suisse

Creative Cooperation

Impulses for a new cooperation







Innovations with genuine added value for the customer are without a doubt the basis for business success. On the one hand, one of the most important sources of innovation can be found within the company itself – the ideas and the knowledge of the employees. In an increasingly complex environment, on the other hand, an open perspective and interdisciplinary cooperation with different partners are also important strategic factors for success.

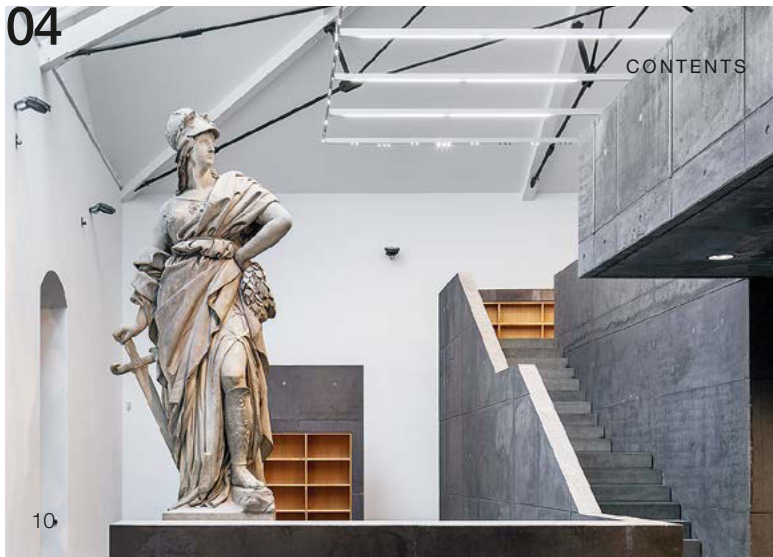
In the current *lightlife* issue with the title “Creative Cooperation” we shed light on the different aspects of communication. In the new Uetlihof 2 in Zurich, Credit Suisse put its vision of the workplace of the future into reality. This project shows the high relevance of new office concepts for greater employee satisfaction and improved communication and cooperation within an organisation. At the same time the project is an example of a cooperative design process, which led to the development of the innovative SFERA and SWARMCONTROL technology. The LED hall luminaire GRAFT is also based on such interdisciplinary teamwork. Cooperation with the renowned engineering firm Arup resulted in a luminaire that sets new standards in industrial lighting.

But not only the manufacturer and technology leader Zumtobel sees a change with respect to cross-sector cooperation; the role of the architect also seems to be taking on new

facets. Bjarke Ingels represents a new generation of architects. In an interview he explains why his architecture studio BIG does not believe in exciting design as the result of a unique idea. To create a good, sustainable design, he and his team instead employ a constructive development process. The studio’s distinguishing concept is that it pursues the goal of fulfilling the expectations of everyone involved without stopping at the lowest common denominator.

The design of innovative living and working spaces for the future in a changing world requires integrative understanding. For long-term success one must be aware of all dimensions of a project, trust the knowledge of specialised partners and have the courage to break the mould. “Creative Cooperation” should give impulses for a new spirit of cooperation, in which light and architecture can meet these new challenges.

Dr. Harald Sommerer, CEO Zumtobel Group



06 INTRO Spectrum

Retrospect and outlook: Zumtobel products convince juries of the most important design awards, TECTON writes 10-year success story, commitment to humanity and environment at focus of the Zumtobel Group Award.

10 FOCUS Powerful dialogue

The former pumping station on Hallesches Ufer in Berlin offers a dignified backdrop for the publishing house and agency of the art collector and entrepreneur Christian Boros.

16 INTERVIEW Architectural «Twister»

Responsible design does not have to be boring.
Bjarke Ingels INTERVIEWED BY Nikolaus Johannson

20 PORTRAIT Common foundation – individual buildings

China's megacities are an experiment field of superlative dimensions. Young Chinese architects are seeking the intersection between avant-garde and traditional architecture – and finding international recognition for their efforts.

BY Bernhard Bartsch

26 PROJECTS Credit Suisse in Zurich

The innovative workplace luminaire SFERA with SWARMCONTROL technology is the successful result of a co-design process oriented toward user needs.

BY Eva Maria Herrmann

34 PROJECTS Kunstammer in Vienna

After a long interval Vienna's Kunstammer is again open to the public and thanks to STARBRICK shines in new splendour. Olafur Eliasson gives an interview on the background.

BY Wojciech Czaja, INTERVIEW Sandra Hofmeister

40 PROJECTS Spotlights

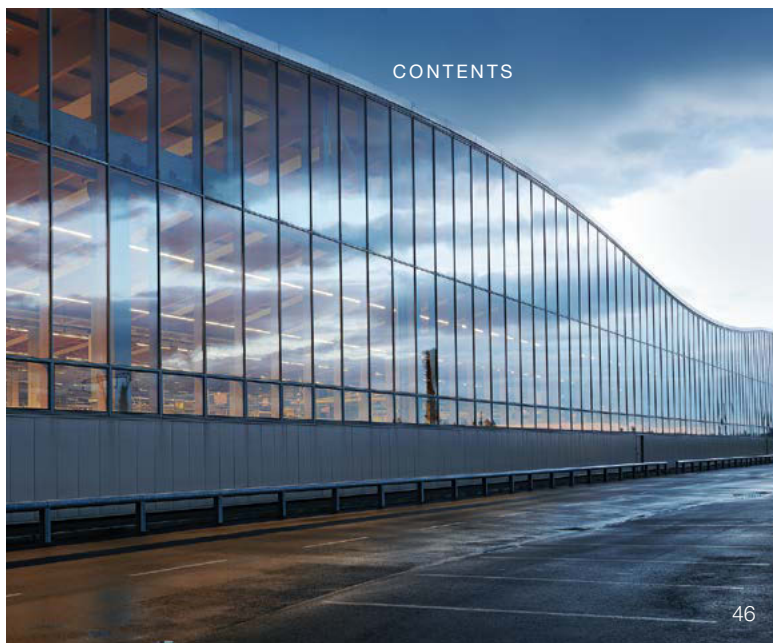
The worldwide references this time include the New Hall for the Basel Exhibition Centre, the LifeCycle Tower ONE in Dornbirn, the CMA CGM Tower in Marseille, the Abu Dhabi Investment Council, the Festival Theatre in Erl, the main office of the DBS Asia Central Bank in Singapore, the City Green Court in Prague, the Vodafone Village in Milan and shop concepts in Dubai, Barcelona, Frankfurt and London.

46 PROJECTS Technogym in Cesena

The focus of the Italian wellness group is on the well-being of not only its customers, but also its employees. Sports, healthy nutrition and optimal lighting provide for outstanding conditions at the workplace. BY Norman Kietzmann



34



CONTENTS

46

50 PROJECTS

Ferrari Classiche in Maranello

Perfection is required in the renovation of Ferrari's historic rarities, as in the case of the industrial hall on the factory grounds in Maranello. BY Norman Kietzmann

54 KNOWLEDGE

LED – the result makes the difference

What role does the luminaire design play in high-quality LED lighting? BY Roland Pawlitschko

58 KNOWLEDGE

The best of both worlds

Zumtobel's first LED hall luminaire GRAFT was developed in cooperation with a multidisciplinary team from the renowned architecture studio Arup. BY Roland Pawlitschko

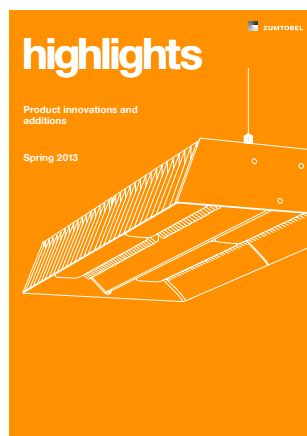
60 COMMENTARY

Individualist or juggler?

BY Wojciech Czaja

61
highlights

New products and supplements for spring 2013

**LIGHTLIFE N° 08**

Lighting Magazine by Zumtobel
14th year of publication, Spring 2013

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Zumtobel Lighting Magazine
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ART.-NR. 04946179 | LIGHTLIFE 8 | 2013 | EN



Spectrum



Zumtobel lighting solutions convince juries

Products from Zumtobel once again impressed the juries of the most important international design awards. The jury of the iF design award 2013 conferred a total of four awards for outstanding product design and efficient light technology. The highest award, the iF gold award, went to the DISCUS Evolution LED spotlight series, which was designed by EOOS. DISCUS Evolution will also receive one of the coveted red dot awards: Product design 2013 to be presented on July 1st at a gala in Essen's Aalto Theater. Two façade lighting products from Zumtobel's in-house product development also scored in the iF design award: the very flat ELEVO LED spotlight and the PAN LED surface-mounted luminaire. The escape sign luminaire ONLITE PURESIGN 150 also convinced the jury, making a total of four winners. Two awards in the category of "Goods and Materials" of the German Design Award 2013 also underline Zumtobel's high design standards: the MICROTOOLS LED light system and the elegant and brilliantly accentuated IYON LED spotlight series by Delugan Meissl Associated Architects.

WWW.IFDESIGN.DE

WWW.RED-DOT.DE

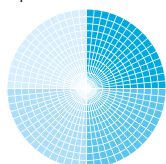
WWW.DESIGNPREIS.DE





1,500

various products



50

countries worldwide



42 %

installation time*



*compared with competitors on ten-length (15 m) continuous row lighting.
Source: refaconsult

6

applications



TECTON still going strong after a decade

How far is it from Vienna to Hong Kong? Exactly the same distance it would take to string together all TECTON trunking sold up until the beginning of the year 2013 – 8,730 km! The success story of this product started a little over ten years ago. In cooperation with Grimshaw Architects, the technological vision of Zumtobel was implemented in a timeless and yet high-quality design. The flexible continuous row lighting is still used today to implement individual solutions that precisely fulfil customer requirements. Moreover, the TECTON portfolio is continuously being expanded, modified and adapted to current developments. This means that the system will remain highly innovative and up-to-date. The modular system consists of four basic component groups – mount, trunking, luminaire and optic – and each product of one group can be combined with any product of another group. TECTON is used in 50 countries around the world.

WWW.ZUMTOBEL.COM/TECTON



Zumtobel Group Award 2012 – Commitment to Humanity and Environment

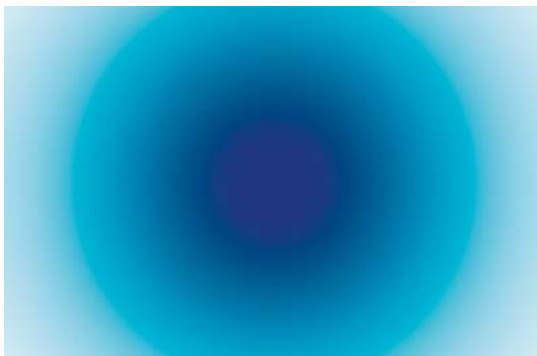
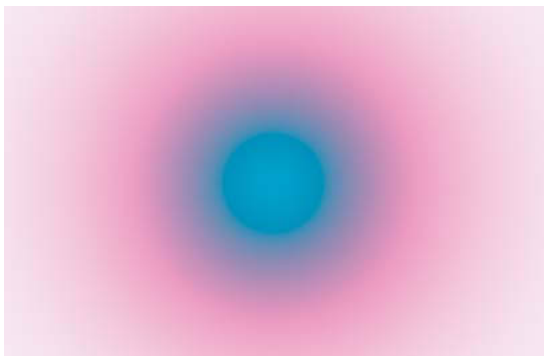
The Zumtobel Group Award, with a total endowment of 140,000 euros, distinguishes projects that promote sustainability and humanity in the Built Environment. In 2012 the award in the “Built Environment” category was given to Michael Murphy and Alan Ricks of the US architecture studio MASS Design Group for the Butaro Hospital Project in Ruanda and in the “Research & Initiative” category to Doina Petrescu and Constantin Petcou of the atelier d’architecture autogérée (AAA) for the initiative R-URBAN in Colombes, a social focal point on the outskirts of Paris. Both projects convinced the jury with respect to understanding of integral architecture, cooperation with other disciplines and charitable organisations, as well as consistent involvement

of the residents both in the planning and the implementation phase.

The awards were presented at a ceremony in November 2012. In this context the sponsors also recognised the architecture studios and research initiatives that had received an honourable mention for their project, including representatives of blauraum architekten in Hamburg, cloud 9 architects in Barcelona, The Why Factory in Delft, the Camenzind Initiative in Zurich, the Maria Grazia Cutuli Foundation in Rome and the CEPT University in India.

The curator of the Zumtobel Group Award is the AEDS Architecture Forum in Berlin.

WWW.ZUMTOBEL-GROUP-AWARD.COM



Inspiration through light and colour – Anish Kapoor in London and Berlin

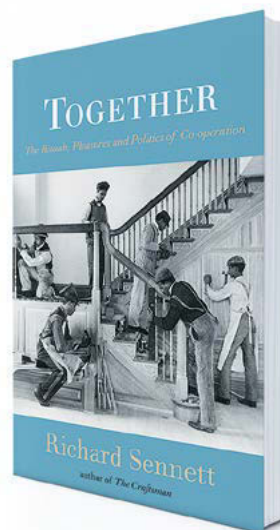
Zumtobel has always given attention to the importance, the correct use and the effect of light in combination with art and architecture. The annual reports of the Zumtobel Group are also created with this focus. For the artistic design of the 21st annual report, Zumtobel was able to engage the renowned Indian-British artist Anish Kapoor. His work deals with the force of colour and its effect on the viewer, especially as a process of very subtle change. The 2011/12 annual report was short-listed for the British Design

Museum's "Design of the Year 2013" in the "Graphics" category. All nominated products and projects will be on display at an exhibition in London until 7 July 2013. Also, Anish Kapoor will hold his first major solo exhibition in Berlin from 18 May to 24 November 2013; the exhibition will fill the entire ground floor and the light court of the Martin-Gropius Museum.

WWW.DESIGNMUSEUM.ORG
WWW.BERLINERFESTSPIELE.DE

Together – The Rituals, Pleasures and Politics of Cooperation

Living with and confronting people who differ from us in many ways is one of the greatest challenges of our time. How this challenge can be overcome is the subject of "Together", the latest publication by the American sociologist Richard Sennett. The author maintains that cooperation is a craft, involving skills such as listening that have been lost over the course of time. His studies examine diverse forms of cooperation, which show that the ability to cooperate is inherent in human nature yet has to be cultivated. An urgent assessment of our modern society, which is characterised by competition and conflict.



Joint success story – On the death of James Irvine

Born in 1958, the British designer, James Irvine, had for three decades, designed outstanding industrial products. His partners included Zumtobel. During his partnership with Sottsass in the late 1990s he was already involved in the design of the successful AERO pendant luminaire. Later, in 2010, he cooperated closely with external designers to continue the development of the MELLOW LIGHT. With a good feel for the successful family of luminaires, Irvine succeeded in creating a contemporary adaptation: MELLOW LIGHT V. The two luminaires remain important milestones in his prematurely curtailed career. James Irvine sadly passed away on February 18 2013 in Milan.

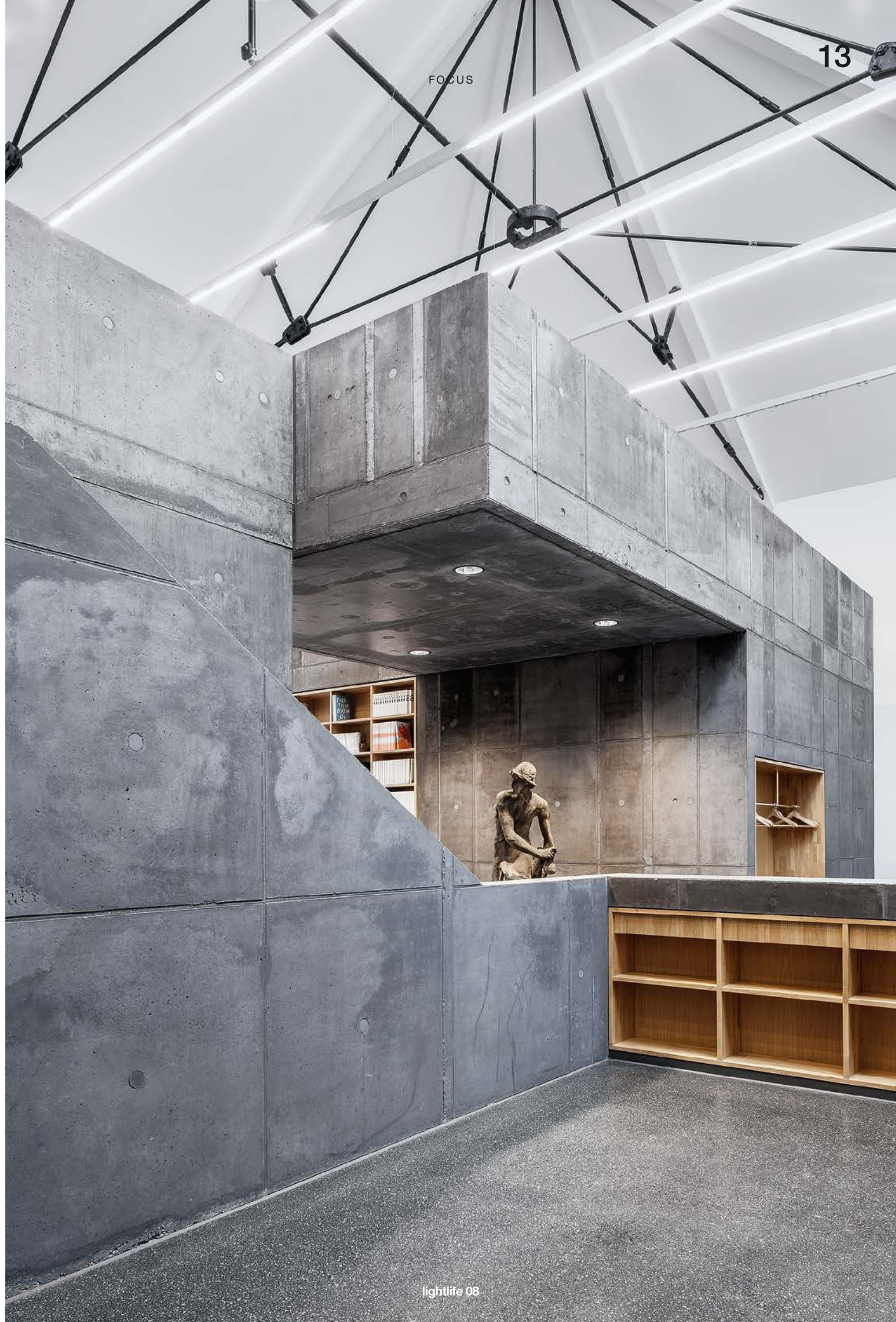
Powerful dialogue

The Boros agency on Hallesches Ufer in Berlin

PHOTOGRAPHS Andreas Gehrke TEXT Eva Maria Herrmann







With dignity the mighty Hercules statue keeps watch over the conference hall in the former pumping station on Hallesches Ufer in Berlin, where the art collector and entrepreneur Christian Boros now has his publishing house and communication agency. Built in the neo-renaissance style, the pumping station was in operation for 100 years until the 1980s, when it became the Lapidarium, a museum for the historic figures from the city's collection of sculptures. Untouched by time, the colossal cast stone figures still stand in the protected monument to technology. Employees and customers are no longer met at the entrance by history buffs, but rather by Mercury, the

patron saint of merchants, and Borussia, the female personification of Prussia. The landmarked and protected historic structure was discreetly enhanced by integrating a black concrete sculpture, which complements the historic structure at an appropriate distance in order not to violate the monument protection regulations. The areas and functions thus created interconnect with the surrounding main hall, without diminishing its spatial qualities. The few new materials, such as the dyed concrete, oiled oak, bronze and the dark floor, will age with dignity and leave their own historic trace – just like Hercules.

A large, dark, three-dimensional 'NO' sculpture is mounted on a textured concrete wall. The letters are bold and blocky, with a slightly weathered appearance. The wall itself is made of large, rectangular concrete panels with visible joints and some surface texture.

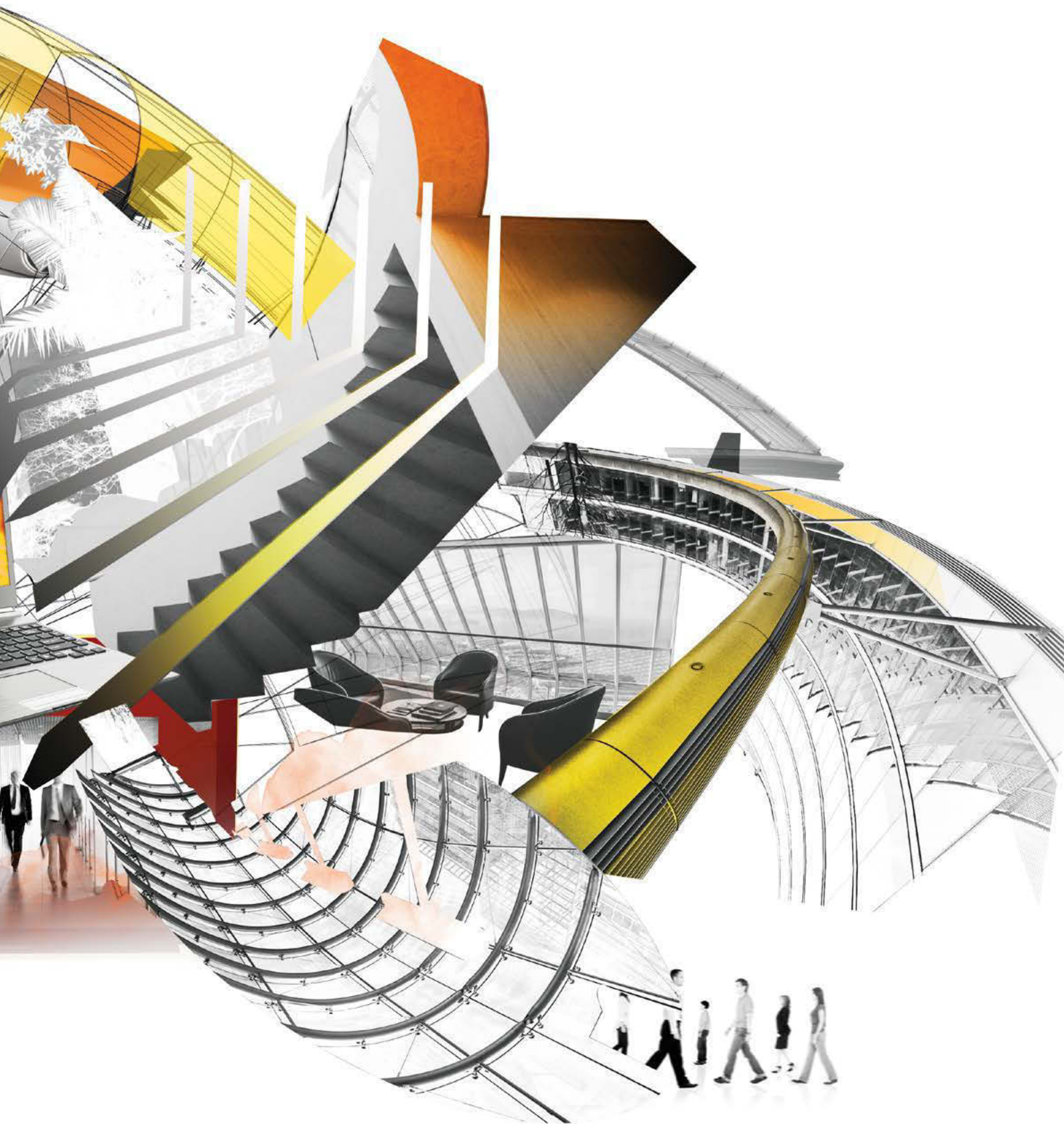


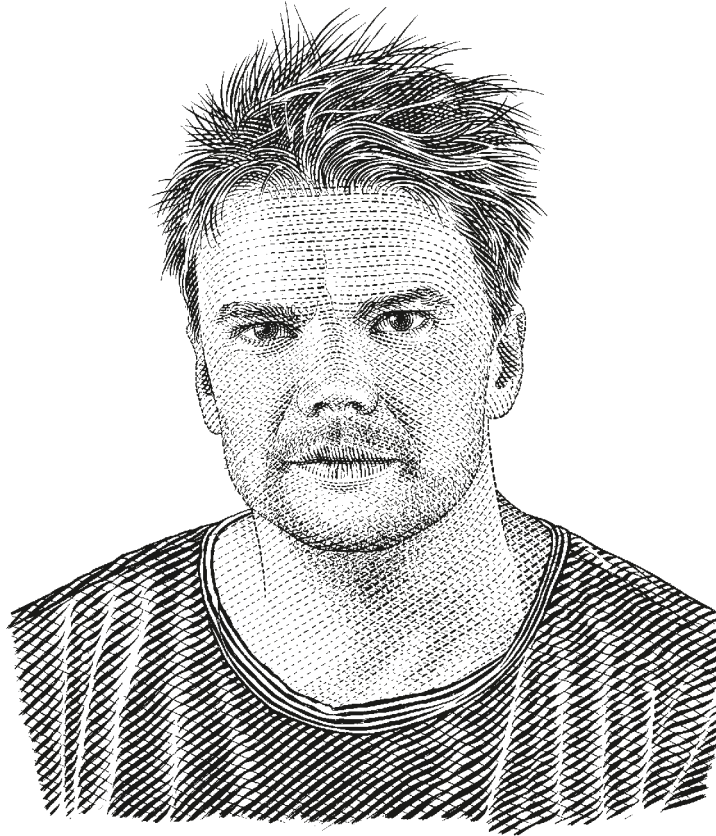
Architectural «Twister»

Responsible design does not have to be boring. How Bjarke Ingels and his team transform seemingly contradictory requirements into clever designs.

COLLAGE James Dawe/Pocko.com ILLUSTRATION Martin Mörck INTERVIEW Nikolaus Johansson

Unconventional ideas and numerous award-winning projects have made Bjarke Ingels a protagonist of the international architecture scene within only a few years. The architecture of his office, BIG Bjarke Ingels Group, is characterised by a pragmatic yet playful approach. The multi-national team pursues the goal of creating socially, economically and ecologically sustainable spaces that are also fascinating with respect to design.





Bjarke Ingels,
founder of the architecture firm
BIG Bjarke Ingels Group

When you think back to the beginnings of your career: What influenced you to become an architect?

BJARKE INGELS I think the most important decisions in life are always a little bit random. At least in my case it was like that. I had just finished school and my idea was to become a cartoonist. But in Denmark there is no cartoon academy. So how was I going to get about it? I was 18 and more interested in drawing cartoons than necessarily having stories to tell. So I enrolled in architecture, with the expectation of improving my drawing skills in the first two years – in particular, I had spent too little time drawing backgrounds and I thought studying architecture would help. But then I actually got interested in architecture.

Yes, I can feel this passion today. What drives you now?

BJARKE INGELS The study of architecture changed my point of view. Today, I am interested in the story. The pictures and drawings are only the means for telling the story behind things. This applies to our little monograph “yes is more”, which is designed as a comic strip. Not the drawings themselves were so important, it was more of a matter of the sequence of the pictures and portrayals, which provide a look behind the scenes. You get a really good impression of why our cities and buildings look the way they do. That is not just something we thought up, it represents a careful study of what is happening in the cities, what the

problems and potentials are and how we can use these to create structures in which we want to live in the future.

How do you use local parameters or characteristics for your projects and how do people perceive this?

BJARKE INGELS We coined the term “pragmatic utopian” in this context, the contrast between a practical approach to reality as it exists and the utopian idea of trying to achieve a perfect world at the same time. In other words we try to focus on the pragmatic things in life, to combine them and get the maximum effect with the minimum of means, the best possible amount of possibilities. At the beginning of every project we plunge into the specific situation of the location. We examine the city, the landscape, the climate, the immediate environment. And then we ask ourselves what the most obvious solution would be for the construction project. What would a school normally look like here and why should we do it differently? We try to add more qualities to the buildings, to give people more possibilities for using them. So in the end our buildings end up looking different because they perform different. What blocks architects and architecture, in my opinion, is the standard solution, the “boring box”, so to speak, which always focuses on only one criterion. In contrast to this, we try to meet several requirements at the same time. Step by step we develop our buildings like an architectural version of

“Twister” – a party game, in which the players have to change their body positions on a sheet marked with dots, based on certain criteria, causing them to contort their bodies in the most outrageous manner. A fascinating design therefore results not only from an obsession on the part of the architect, but also from the combination of different requirements, which can involve a certain amount of acrobatics and that is exactly what it reflects in its environment.

What exactly is good design for you?

BJARKE INGELS I think good design is informed by specific information. A design decision should not be made out of the blue or based on stylistic obsession, but on the basis of knowledge and observation. The location, the climate, the building regulations, the social environment and what you want to make out of it all play an important part. In short: “Good design is careful, bad design is careless.” “Careless” in the sense that people don’t care if they create boring architecture and are only interested in profit or that they design buildings that fail to take into account the needs of people who will use them. Even expensive and spectacular buildings can be poorly designed, because they do not respond to their environment. Good design on the other hand is where every single design decision is made

on the West side, I actually saw the chance to leave my mark in Manhattan. Meanwhile we have 60 people in New York, which was really a burst of energy for the office. Our work, both in Copenhagen and in New York, has literally flourished since then. Once you have found the job you love, you don’t have to work another day of your life – this proverb is really true! That brings me to my theory of “hedonistic sustainability.” You can’t only consider the energy consumption of a building or its effects on the environment – because we erect buildings and cities primarily to increase our quality of life. After all, we are tired of living in caves or on trees. We want houses and streets, bridges and squares. But we have to watch out that we do it in a way that does not sacrifice the environment – on the contrary, we need artificial ecosystems that improve the quality of life for everyone.

What is the influence of the different nationalities of the people who work in your office?

BJARKE INGELS In our office here in Copenhagen alone we have 25 different nationalities. The main reason for that is probably that our work has attracted people with different talents and abilities from other parts of the world. Also, for foreign projects it is important for us to have a local representative on our team. This helps to avoid mistakes as a result of cultural unawareness.

»Good design is careful, bad design is careless.«

for a specific reason and the architect is aware of what will actually happen when it’s built.

Such an approach requires extensive knowledge and experience, doesn’t it?

BJARKE INGELS That’s true – and it’s why we are not the fastest designers in the world (laughs). It is a fact that for a given project we try out very many ideas based on various models. When we start a project we try to filter out the essential criteria – the main topic, so to speak. Based on these criteria we then develop different design ideas and see what happens when they are combined, for example maximum compactness with a lovely view and plenty of daylight. It’s almost a little like Darwin’s theory of evolution: We reject, sort and combine different criteria and ideas. Some lead to “mutants”, others to interesting hybrids that continue developing little by little until the final idea crystallizes. My approach is to try out as much as possible during the design process – because the more “garbage” you can sort out during the design phase, the less “garbage” will end up in the city later on.

Two years ago you established an office in New York. What was the reason for this decision – other cultural influences?

BJARKE INGELS There were different reasons, of course, but after we had the opportunity to plan the “Court-Scraper” project

It has enriched our office immensely and we continue to expand the multinational team for new projects. Another advantage of cooperation with different cultures and backgrounds is that you do not take everything for granted. For example, there are very different opinions about whether a bedroom should have windows or not – which is simply a result of whether you grew up in Denmark or Taiwan. Bringing people from different cultures together gives you a new point of reference. In the long run, you look at things more closely, which leads to amazing insights. I believe the migration of ideas holds great potential for innovation. An idea that was born in one place can release fully new potential somewhere else.

Common foundation – individual buildings

China's megacities are an experiment field of superlative dimensions. Young Chinese architects are seeking the intersection between avant-garde and traditional Asian architecture – and finding international recognition for their efforts.

PHOTOGRAPHS Iwan Baan TEXT Bernhard Bartsch



China's cities are characterised by unimaginative functional buildings, interspersed with a few remnants of the past and showpiece buildings oriented toward the global mainstream. But city governments and construction companies are now looking for new approaches, offering China's architects a huge experiment field. What they design in the area of conflict between traditional and modern is one of the most exciting developments in the international building scene. The rise of the megacities is, after all, a major trend of the 21st century and no country is more rigorous than China in seeking solutions in this respect.

The fact that contemporary Chinese architecture is getting more international attention is the manifestation of a change that is occurring in the country itself. For the first time in a long while, China's building culture is independent, diverse and full of character. As opposed to externally imposed architectural templates, the designs of many Chinese architects contribute to the encounter with contrasting ideas and openness for change.





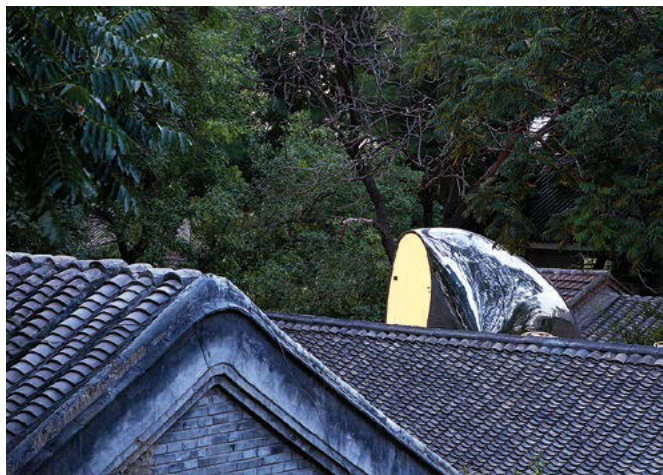
Ma Yansong /
MAD Architects

“It is also possible to promote change by putting an idea in the world.”

In the old part of Peking it appears as if the moon has landed. At night, the shining silvery orb looms above the curved tile roofs of the traditional courtyard buildings. During the day one sees that it is a large stainless steel structure nestled in the corner of a courtyard. Inside there is a futuristic bathroom, in radiant white, with uneven walls. Avant-garde in the midst of old architecture – a greater stylistic inconsistency is hardly conceivable. But that is exactly the intention.

The gleaming bubble is the idea of Peking-based architect **Ma Yansong**. The 37-year-old wants to make the traditional Hutong quarter fit for the future. Since they usually do not have bathrooms, they are considered out-of-date. Some of the most beautiful neighbourhoods of the old imperial city have therefore been torn down in recent years. “Is that necessary?” asked Ma, who developed his “Hutong Bubbles,” where bathrooms can be installed easily and inexpensively – so that the modernisation is readily apparent. So far only one of these bubbles has become reality. “But it is also possible to promote change by putting an idea in the world,” says Ma.

With visions like the “Hutong Bubble” Ma’s agency “MAD Architects” has established itself as one of the most prestigious addresses in China for innovative concepts.



With the “Hutong Bubbles” Ma Yansong is setting an example for more creativity



The history museum in Ningbo caused a worldwide sensation.



Wang Shu /
Amateur Architecture Studio

“I like to make use of traditional local craftsmanship in my buildings.”

The most important pioneer is **Wang Shu**. The 49-year-old received the 2012 Pritzker Architecture Prize, which is the most valued architecture award in the world. The son of a musician and a teacher, he spent his youth during the years of the cultural revolution in China’s western province of Xinjiang. In 1997 he and his wife established the “Amateur Architecture Studio,” a name that clearly indicated the intention to differ from the accepted standards of their profession. “Professional architects hardly think about their responsibility any more,” says Wang. “Urbanisation and building mania have largely destroyed organic culture and many architects hardly still have the ability to categorise things historically.” How this is done Wang shows in his history museum in the eastern Chinese city of Ningbo, which opened in 2008. The buildings bend and tilt like ships on water, a homage to the sea that shaped the city. While public buildings in China normally are characterised by glass, steel and marble, Wang sticks to traditional materials. In the region’s villages he collected bricks and tiles from torn-down buildings and used them to build new walls. He covered other areas with concrete-coated bamboo – a traditional construction material in a modern design. “I like to make use of traditional local craftsmanship in my buildings,” says Wang. After all, villages could preserve social values much better than modern cities.

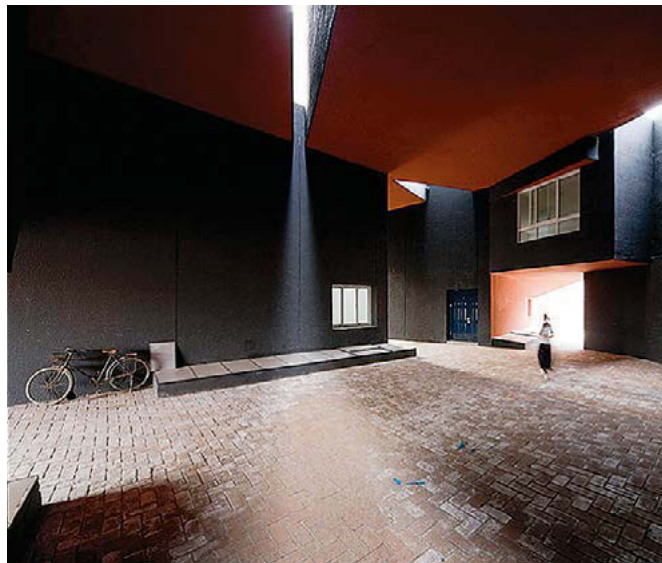


Pei Zhu /
Studio Pei-Zhu

“We need a futurism with a reference to our tradition.”

Pei Zhu thinks similarly. “We are racing toward the future without knowing what our goal is,” the Peking-based architect complains. “But Chinese culture needs time to breathe.” That is why the 51-year-old, who studied in California, pleads for not always putting up new buildings, but renovating existing ones instead. In the direct vicinity of Peking’s imperial palace he demonstrated how worthwhile this approach can be. Pei gave a faceless functional building a new façade, whose structure is reminiscent of classic Chinese lanterns. Inside he created open spaces based on the model of Hutong architecture. Today, the building houses a boutique hotel. Using a similar strategy, Pei also modernised office buildings and old courtyard houses. Pei believes that such modernisations of existing buildings can give back Chinese cities their distinct character, which so often is lost today. “We need a futurism with a reference to our tradition.”

The project “Digital Beijing” originated in the context of the 2008 Olympic Games.



The residential estate by DnA in Songzhuang plays with the meaning of the colours grey and orange.



Xu Tiantian /
DnA

“Buildings have personalities, just like people.”

Xu Tiantian also tries to connect with China’s traditions, although her approach is freer. In her spectacular residential estate in Peking’s art district Songzhuang, she plays with two colours that have different meanings in the architecture of the capital city: the grey of the Hutongs and the orange of the imperial buildings. In Xu’s buildings, which look like stacked creative blocks, large surfaces in grey and orange collide with each other. The 34-year-old learned this playful approach at Harvard and in the studio of star architect Rem Koolhaas. In 2004 she founded her own office DnA, which stands for Design and Architecture. “We believe that buildings are characterised both by their own genes and by the environment,” Xu explains her approach. “They have personalities, just like people.”

In the “Hutong Bubbles” bathrooms could be installed easily and inexpensively in the old part of Peking.





The architecture studio Turenscape provided new impulses in Chinese landscape architecture.



Yu Kongjian /
Turenscape

“We have to minimise our intrusion on nature.”

However, cities consist not only of buildings, but also of spaces in between – and they should leave room to breathe. Yu Kongjian, a professor at Peking University, therefore strives to modernise China’s landscape architecture. In 1998 the Harvard graduate established Turenscape. “‘Tu’ means earth and ‘ren’ means man”, explains the 55-year-old. As a compound that means something like: Man in the environment. The necessity of redefining this relationship is long overdue, Yu believes. Water scarcity and air pollution are immense problems, says Yu. “We have to minimise our intrusion on nature.” Yu shows how this can be done in his “Red Ribbon Park” in Qinghuangdao in the province of Hebei. While Chinese parks normally are characterised by broad asphalt paths, large squares and nocturnal illumination, Yu created a park that equally satisfies the need for modernity and preservation. Along the narrow paths there is a 500 m long red bench made of fibreglass that invites passersby to sit and is illuminated from inside at night. “The concept is cost-effective, energy-saving, leaves room for nature and offers a unique experience,” Yu explains the design, which meanwhile has become one of the city’s attractions.



Zhang Kes /
standardarchitecture

“We are not bound to that which we already know.”

The buildings by standardarchitecture are supposed to fit into the landscape like the visitor centre in Niyang.



Zhang Kes’ career also started with a park. In 2001 the Harvard graduate won a contest for designing a grass verge along Peking’s renovated city wall and established “standardarchitecture,” an office that he now manages together with several partners. “The name is supposed to convey neutrality,” says Zhang. Instead of show architecture he wants buildings that organically fit into their environment. In the Tibetan Yalu-Tsangpo Canyon he therefore built a marina and a visitor centre, whose striking forms imitate the dramatic landscape. For the material, he used locally hewn stone. “That was an attempt to create an architecture that conveys the feeling of growing out of the landscape,” Zhang explains. At the same time, the 41-year-old experiments with bold urban construction concepts. In 2011, for example, he tried to simulate how public life in Peking would change if the ring roads were transformed into huge conveyor belts. It was less a matter of realistic chances of implementation than of the constant attempt to question the known. “Sometimes one has to dream,” says Zhang, “because then we realise that we are not bound to what we already know.”

With so much creativity it is no wonder that representatives of the young generation of Chinese architecture meanwhile are in demand abroad. For the Canadian city of Toronto, for example, Ma Yansong’s “MAD Architects” designed two 170 and 150 m high residential towers, with such sensuous curves that the local residents gave them the nickname “Marilyn Monroe”. And for Taichung in Taiwan the Peking-based architects designed a congress centre with delicate folds, like an origami sculpture. Popularity is not a matter of chance. The problems for which China’s architects are developing solutions, after all, are of global significance. “In the end we want architecture and urban planning that resolve the conflict between nature and urban congestion,” says Ma. “That is of course a very complex system – but that is our goal.”

Smart Working

Teamwork and Creativity at Credit Suisse in Zurich

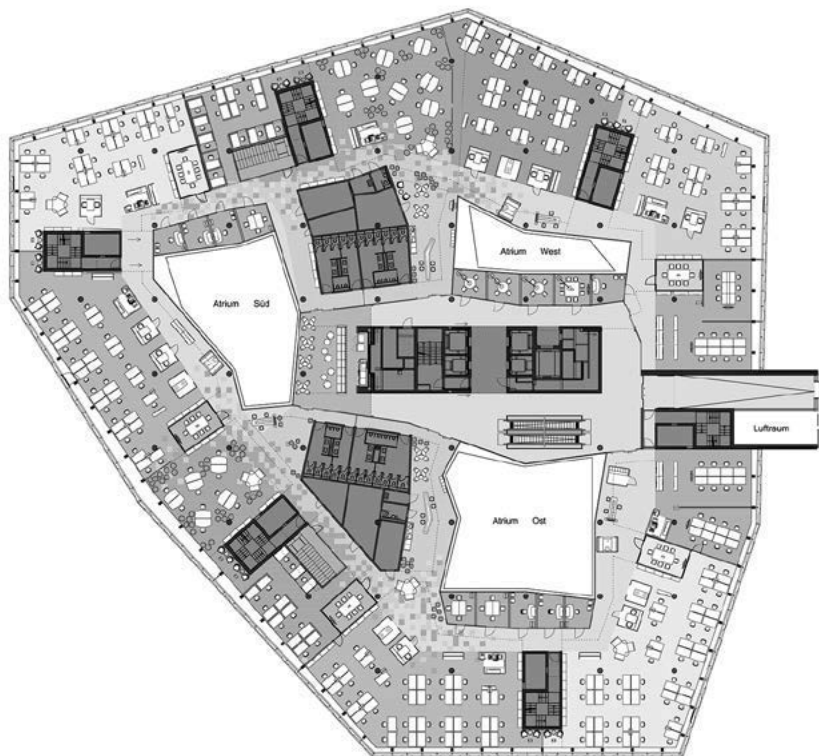
PHOTOGRAPHS Atelier Altenkirch TEXT Eva Maria Herrmann





There are very few employers who act with far-sightedness when it comes to the work environment. Credit Suisse plays an innovative pioneering role here with a separate department: for about 21,000 employees throughout Switzerland and is striving for the "Workplace of the Future". This task is taken very seriously and is proven by the latest smart working concept implemented in the new Credit Suisse building Uetlihof 2. Instead of cramped work cells and monotonous open-plan office areas, employees can choose from among several options every day: a conventional workplace in the "Home Base", creativity in the "Business Garden", concentration in the "Quiet Zones" or "Worklab" atmosphere in the temporary project team or the "Think Tanks". Depending on the type of work, diverse areas are available within which the employees can move about with flexibility.

The strategic decision for the concept of the open plan office was made at Credit Suisse back in 1976 – unprecedented in Switzerland at that time. With the move into Uetlihof 1 the concept is already successfully implemented for 6,000 employees and is continuously being developed with the goal of realising a "multi-space concept". Companies with foresight understand that efficiency not only involves the intensification and reorganisation of workplaces, but also increasing the attractiveness of the workplace. Because a change in work culture also requires adaptable



With the diversified workplaces of the smart working concept, the existing office space is now used more efficiently

changes in the work environment. Work and communication processes are moving away from the individual player mentality toward teamwork and creativity. This process, which is taking place across all work structures and nationalities, consequently demands more initiative, individual responsibility and leadership. Successfully, as shown by internal monitoring and external studies: improved communication through informal encounter and exchange boost the company's innovative potential.

The new building Uetlihof 2 offers the architectural stage for the implementation of future-oriented utilisation of infrastructure and resources on a larger scale, not only in the diversified workplaces, attractive design or high-quality materials, but also in the attitude toward sustainability through implementation of the project in accordance with the Minergie-P-Eco standard. The experience and insight gained in a pilot project on the non-territorial smart working strategy with 160 workplaces for 200 employees was applied in the planning of Uetlihof 2. The Lienhard Office Group and the Universities of Zurich (ZHAW) and Lucerne (HSLU) additionally supported the project with an evaluation process. A fundamental issue for example was the available area for the different work methods, with 2,500 employees sharing 2,000 workplaces, distributed on the principle of individual "swarming out" and by departments within a floor. Another task of the evaluation: to encourage a new sense of self-management and consequently to boost motivation and productivity. The efficient use of space also saved money, which had a positive influence on the quality and furnishings of the interior. Furniture elements and workplace modules were developed to production stage especially for Credit Suisse, based on custom requirements. Intelligent implementation of the ambitious goals also includes integration of the necessary technology infrastructure. The results of the evaluation prove that the effort was worthwhile. More than 80 % of the

surveyed employees find the attractive and comfortable furnishings to be motivating and positive for the outcome of their work.

A very significant aspect of the smart working concept is intelligent lighting. High quality of light is the prerequisite for increasing workplace quality. In the case of Credit Suisse the innovation goes one step further. The high standards of technology, efficiency and design were an integral part of the workplace concept. In addition, it was possible to develop empathic light that is capable of responding individually to future conditions. The future of smart working involves the flexible use of spaces that can adapt to the changing requirements independently of the surrounding area. The logical consequence is to replace fixed lighting that is integrated in the ceiling with flexible, adaptive components.

Developed especially for the smart working concept, the SFERA standing luminaire places the emphasis on people and their needs, independent of the ceiling height, size of the room and layout of the workplaces. This integral development concept includes influencing factors such as demographic change, social diversity and the need for flexible workplace models. The lighting solution takes into account not only the activities and related visual tasks, but also the vision of individual employees. The intelligent technology adapts to the needs of the employees and allows their direct influence in order to achieve optimal workplace ergonomics and light quality.

This advancement is made possible by a combination of the adaptive lighting management system SENSCTRL and the new innovative SWARMCTRL technology – a special development driven by innovation and cooperation in the product development process.



Once installed, SFERA configures itself by means of ultrasound and light sensors and records the positions of the standing luminaires in the room. Like a swarm, the luminaires in one area communicate with each other, using two basic functions to enable fast and easy adaptation to changing office situations. During full occupancy, basic room lighting ensures ideal brightness distribution, while supplementary light allows for individual visual tasks and indirect lighting of the ceiling. At times when only specific workplaces are occupied, reduced basic lighting of these areas minimises energy consumption. When someone enters the area, the integrated motion detector transmits a signal to the neighbouring luminaires, which then successively increase the light level, thus accompanying the employee. Intuitive controls and adaptation of the workplace lighting – without affecting the surrounding workplaces – are a fundamental part of the development work. Through communication with each other the surrounding luminaires form an intelligent light cloud, creating a pleasant room atmosphere in the immediate vicinity based on the available daylight and artificial light. The result is an efficient and energy-saving area lighting management system, which reduces operating costs and is also a crucial factor for maximum light comfort, individuality and a visionary outlook.

CLIENT Credit Suisse AG, Zurich/CH
 CONCEPT SMART WORKING/PILOT AREA Congena GmbH, Munich/D
 Camenzind Evolution Ltd., Zurich/CH
 ARCHITECTURE Stuecheli-Architekten AG, Zurich/CH
 INTERIOR DESIGN Greutmann Bolzern Designstudio, Zurich/CH
 LIGHT PLANNING Reflexion AG, Zurich/CH

LIGHTING SOLUTION LED standing luminaire SFERA with
 SWARMCONTROL and SENSCONTROL III
 SLOTLIGHT continuous row lighting, PANOS LED downlight





SFERA is a free standing luminaire that functions independently of the room height, size and layout of the workplaces.

SFERA

The co-design process with Credit Suisse

ILLUSTRATION Martin Mörck



The innovative free standing luminaire combines intelligent technology, puristic design and ideal visual comfort.



Julian Lonsdale,
product designer
at Zumtobel

With a volume of about 2,000 new, modernised workplaces every year, the motto of Credit Suisse on the subject of light is clearly defined: a luminaire has to be flexible, adaptable, decorative and innovative, while providing optimal light comfort. At the same time it should fulfil the high standards for sustainability and energy efficiency in accordance with the Minergie-P-Eco standard. Because: "A good room climate is central for the well-being of the employees," says Markus Basler, who has been in charge of the "Workplace of the Future" at Credit Suisse for the past nine years. "Just as ambience, colour design and light are integral components of a modern work environment."

It is not unusual to receive a request to develop a special solution for a project. What makes the development of the LED free standing luminaire SFERA with SWARMCONTROL and SENSCONTROL III so special is the far-sightedness of both partners. This was due to the focus being on optimising user friendliness despite the complexity of the functions.

"The joint goal was to develop an innovative luminaire that fulfils all technical specifications and requirements of the customer for different light needs and to reduce the energy

consumption substantially," Zumtobel product designer Julian Lonsdale explains the challenge.

In a co-design process the dividing line between success and failure is narrow. Usually, at the beginning the only clear thing is the specification; everything else, such as user, the concept and technology, have to be developed from the start. This can repeatedly cause delays within the process. The transparent communication and intensive feedback process between the workplace experts of Credit Suisse and the product designers and technology decision makers at Zumtobel created conditions in the end for the successful development of the intelligent luminaire.

In comparison with the usual functions and lighting management systems, the new product has an unprecedented feature: SFERA luminaires communicate with each other and configure themselves automatically to form an intelligent swarm. Each single luminaire can therefore dynamically adapt even more precisely to changing conditions inside the building – a revolution of the light situation in open plan offices and a milestone for the light technology of the future.

Modesty and Sensitivity

Suspended weightlessly in history —
STARBRICK for the Kunstkammer in Vienna



PHOTOGRAPHS Bruno Klomfar TEXT Wojciech Czaja



Der Salmen des
Benvenuto Cellini:
Kunst und Kultur
am Hof der Könige
von Frankreich
im 16. Jahrhundert

UNICA



Vienna's Kunstkammer, which recently reopened after many years, now shines in a new light. The most exquisite exhibits include the Saliera and the power of the dematerialisation of architecture. The only conspicuous object is Olafur Eliasson's STARBRICK, suspended weightlessly in history. Benvenuto Cellini's Saliera, which was completed in Paris between 1540 and 1543, is presumably the world's most famous salt cellar. When the ornate table utensil, an allegorical representation of the two gods Neptune and Tellus, was stolen from the Vienna Art History Museum in a spectacular robbery on 11 May 2003, an outcry was heard throughout the art and media world.

Now, ten years later, the unique salt container made of gold and ebony – having been recovered in 2006 – finally has a new home. After years of construction work, the fully renovated Kunstkammer on the raised ground floor of the Vienna Art History Museum (KHM) has reopened. 2,200 artefacts made of silver, gold, precious stone and ivory are kept in 300 night-black showcases and will be presented to the public. An important supporting role beside all the material art objects is the light.

"A museum without the right light is inconceivable," says Sabine Haag, general director of the KHM. "There were long discussions about whether a contemporary solution is permissible in the context of a historic collection housed in a historic building. So we finally settled on the idea of using modern lighting in the Kunstkammer and of combining our collection with the STARBRICK from Danish artist Olafur Eliasson."

The black-yellow STARBRICK, which was developed and designed for the Zumtobel Masterpiece collection, today shines as a striking light sculpture from the ceilings and rib-vaulted arches of the Kunstkammer's 20 rooms, setting the scene for the diverse artistic conceptions of the past and present. The contrast between Old and New is impressive. At times, the angular "star-shaped brick" seems to hover between the ornate ledges and capitals, among the finely painted cases.

"Light has to be visible," according to the German exhibition architect HG Merz, who is responsible for the overall design conception of the new Kunstkammer. "If I cannot recognise the source of light in a brightly lit room, that makes me unhappy. It was obvious to us, therefore, that we need to work with a modern reinterpretation of the classic chandelier."

The only modification of the production model: On the bottom the STARBRICKS are equipped with additional LED spotlights, to set accents from the middle of the room. The bottom light surfaces of the STARBRICK chandelier also fulfil the function of emergency lighting. The contemporary primary light sources are supplemented by indirect wide beam luminaires integrated on the tops of the showcases and in the suspension construction of the chandeliers. Also, additional miniature LED spotlights from the SUPERSYSTEM family are positioned on the borders of the ledges. Since each single light source has a separate dimmer control, the right light scenario can be configured for each room based on its colour, form and size.

STARBRICK sets a decidedly modern accent in a historic context.

PROJECTS

The renovation of the Kunstkammer included new floors, refurbishing of the plaster walls and a completely new heating and ventilation system. 70 km of cables, 10 km of pipes, 2,460 m² of smoked oak parquet flooring and about 300 m² of reddish marbled stone floors were laid. The most obvious interior design change, however, is in the furnishings. New benches with integrated iPads for individual infotainment and finely crafted, black showcases characterise the ambience, which HG Merz succinctly describes as “modesty and sensitivity”.

Three types of showcases with different heights and sizes are used, including table cabinets, wall modules and 10-foot high free-standing showcases. The base is made of black, highly reflective mineral material, which infinitely reflects the dramaturgy of the rooms. “Dematerialisation” is the name for this effect, which is perfectly staged here by HG Merz. Other materials include anodised aluminium, non-glare glass and various coloured textiles for the showcases, which in the end are what put the precious artefacts in the right light.

“The objects in the Kunstkammer could not be more different in nature, and this necessitates absolute tactfulness with respect to the lighting,” explains Ralf Müller, technical project director at Zumtobel. “Lenses with different radiation patterns and adjust-

able spotlight heads, however, allow optimal illumination of each exhibit piece.” To prevent heat emissions inside the showcases, only LEDs were used. Small, discreet SUPERSYSTEM spotlights integrated in the ceilings of the showcases leave the main role to the statuettes, ornate receptacles and exotic hand crafted articles from the past 1,000 years of art history. Old materiality and modern immateriality complement each other perfectly. This is demonstrated not least of all by the famous Cellini Saliera, which has taken its place of honour in the unexcited warm light of the new Kunstkammer.

CLIENT Vienna Art History Museum, Vienna/A
ARCHITECTURE HG Merz, Stuttgart, Berlin/D
LIGHT PLANNING Die Lichtplaner, Limburg/D
LIGHT CONCEPTION Symetrys, Lustenau/A
ELECTRIC PLANNING IB Süd, Vienna/A

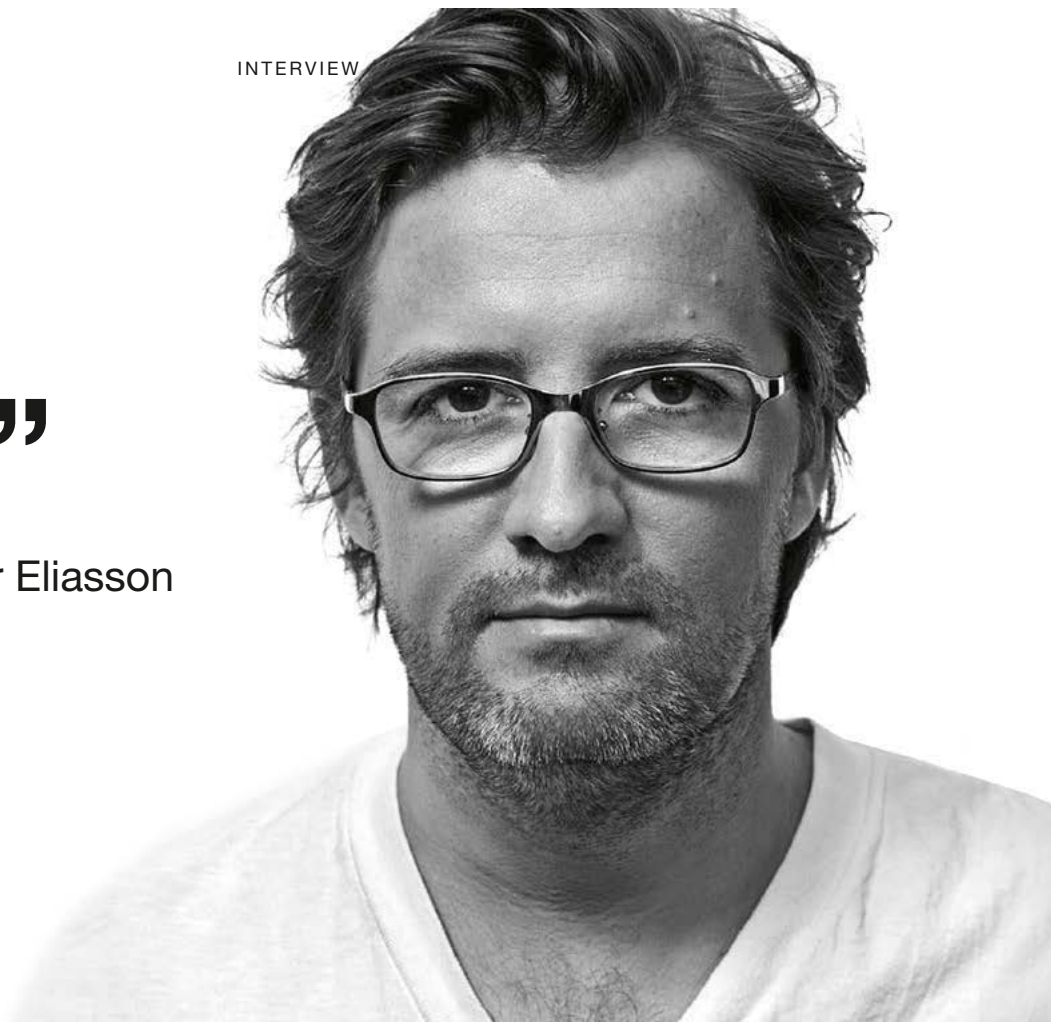
LIGHTING SOLUTION Special solution STARBRICK Masterpiece, SUPERSYSTEM LED spots, PANOS INFINITY LED downlight, ONLITE LPS escape sign and emergency lighting, ONLITE central LPS battery system

The widely differing exhibits are presented optimally with lighting solutions from Zumtobel.



My friend "Light"

Interview with Olafur Eliasson



PORTRAIT Ari Magg INTERVIEW Sandra Hofmeister

Much of your work makes reference to the spatial context. To what extent is this context important for your art?

OLAFUR ELIASSON I always consider the consequences that result from putting an installation into the world. To measure these consequences and all of their causalities, we often fall back on experience. Space is an important premise in this process, because without it there would be no physical platform for experience. Also, space is always defined by our activity and comprises not only aesthetic, but also ethical and moral aspects, which are important for the relationship between subject and object. On the one hand, spaces can polarise and on the other they can evoke empathy; that is another characteristic that influences my work.

Another contrast that seems irrelevant in your work is that between art and design. The STARBRICK, for example, is an industrially produced light object and also a work of art, which asserts itself in different spaces. How do art and industrial design come together?

OLAFUR ELIASSON For me, art and industrial design are not different domains. Because art is actually not a separate domain, but rather a language, whose standard and quality depend on what one says with it. Industrial design on the other hand is a kind of mechanism that can be used to implement artistic statements. The interesting thing is that in industrial design, many different

competences converge – those of the engineers, light engineers, material specialists and many more. With the STARBRICK I wanted to create a work of art that shakes off the elitist status of art and is much more accessible through the principle of duplication. As a system that is assembled from single modules the STARBRICK is a work that never ends and can always be formed anew – even a kind of house can be made from the single modules. On the one hand the STARBRICK is therefore a component that can be combined and supplemented. On the other hand it is also a luminaire, which in the actual sense is not an object, but part of a larger, somewhat utopian system.

In the Vienna Kunstkammer the single modules of the STARBRICK are supplemented with spotlights, which create new qualities of light. How did this special solution come about?

OLAFUR ELIASSON In the history of art, fixed laws and the construction of reality have often been questioned, which is why the STARBRICK is very appropriate for the Kunstkammer. It is based on a mathematical principle in which the usual Euclidean rules do not apply, the focus being instead on process-oriented and crystalline phenomena of growth. In this respect, the Starbrick in Vienna represents a non-standard mathematical concept of the construction of reality. Of course, the result is also a luminaire that gives us increased light to gain better control of the space. The actual form and idea of the STARBRICK, however, were not changed by this special solution.



“For me, art and industrial design are not different domains. The interesting thing is that in industrial design, many different competences converge.”



Right in the middle of it all
New hall for Basel Exhibition Centre/CH

The spectacular New Hall for the Basel Exhibition Centre has been completed in time for BASELWORLD 2013, the world watch and jewellery show. With the three-storey hall and super structure partially covering the outdoor area of the exhibition grounds, Herzog & de Meuron once again have accomplished an architectural masterpiece. Not only does it fulfil the functional requirements of the Basel Exhibition Centre, but also serves as an integrating element between the events at the centre and the infrastructure of the surrounding Lesser Basel district. The extensively windowed ground floor is directly connected to the city space, marking the covered area of the exhibition centre, known as the City Lounge, with its shops and restaurants. The curved façade follows the flow of visitors, creating space for the tram station in the middle, which receives daylight through a large round overhead opening. Coloured LED light rows in the entrance areas to the exhibition halls supplement the daylight with intelligent light technology. The two upper, closed levels of the hall are offset in relation to each other, so they are perceived as separate units that divide the massive structure visually into smaller parts. This impression is enhanced by a delicate,

interlaced aluminium façade. In contrast to the bright outward appearance, the exhibition halls themselves have no windows. The dark supporting structure is unobtrusive and offers a neutral background for the impressive exhibit stands. The lack of daylight makes it essential to have sufficient lighting that is adapted to the requirements of the exhibition events. Zumtobel succeeded in accomplishing this with high-quality luminaires such as TECTON continuous row lighting system and PANOS INFINITY downlights, as well as the comprehensive mix of general, emergency and security lighting. The new hall is unique as Switzerland's only exhibition hall to meet the Minergie standard.

CLIENT MCH Basel Exhibition, Basel/CH
ARCHITECTURE Herzog & de Meuron, Basel/CH
LIGHT PLANNING Bartenbach LichtLabor, Aldrans/A
ELECTRIC PLANNING Herzog Kull Group, Schlieren/CH

LIGHTING SOLUTION TECTON continuous row lighting system;
PANOS INFINITY LED downlight; ONLITE, PURESIGN, CUBESIGN, FREESIGN,
RESCLITE TEC escape sign and security lighting; LED light lines special solution



The future of urban construction LifeCycle Tower ONE, Dornbirn/A

The LifeCycle Tower ONE (LCT ONE) in Dornbirn is the world's first high-rise building with unencapsulated wood-hybrid construction. Officially opened in November 2012, the building impressively demonstrates the future of urban construction, in which innovative technologies, the latest scientific discoveries and a resource-conserving construction method were implemented masterfully. The absolute novelty of the seven-story building, which was built by Cree GmbH as the owner and a subsidiary of the Rhomberg Group, as well as the architecture studio Hermann Kaufmann: the structural elements are made of wood and are not covered with panels. This means that the unclad wood structure of the wood can be experienced inside the LCT ONE, which not only saves resources, but is also part of the fire prevention concept.

Constructed in a modular design, the modules of the LCT ONE were pre-fabricated in the factory and then installed at the construction site, which cuts the construction time by 50 % compared with conventional building methods, as well as eliminating sources of errors and ensuring a high level of quality and a reliable cost calculation. In addition, resources are used optimally throughout the entire life cycle of the building to increase

energy efficiency and significantly improve the CO₂ balance. The LCT ONE sets new standards with respect to sustainability and quality and requires maximum performance on the part of everyone involved. Zumtobel developed an innovative lighting solution for the LCT ONE for maximum light convenience, reduced energy costs and increased efficiency. Besides ultra-modern office lighting, the light control system LUXMATE LITENET was used throughout the building, combining such complex functions as daylight-based lighting management, control of blinds, presence monitoring, integration of emergency light and pre-defined room profiles in a central and user-friendly unit. Optimal utilisation of daylight, in combination with a total of 112 presence sensors, saves up to 75 % of the energy needed for lighting.

CLIENT Cree GmbH, Rhomberg Bau, Bregenz/A
ARCHITECTURE Hermann Kaufmann ZT GmbH, Schwarzach/A
ELECTRIC PLANNING Engineering Office Brugger, Thüringen/A
ELECTRIC INSTALLATIONS EGD Dornbirn/A

LIGHTING SOLUTION PANOS INFINITY LED downlight, ELEEA pendant luminaire, ECOOS pendant luminaire, CLARIS II pendant luminaire, MICROS LED downlight, LUXMATE LITENET lighting management system, ONLITE escape sign and security luminaires, ONLITE central CPS battery system



Commitment down to the last detail CMA CGM Tower, Marseille/F

The 137 m high-rise is the new flagship of the French CMA CGM shipping company in the port city of Marseille. Zaha Hadid, British architect and winner of the Pritzker Architecture Prize, created a unique building, which has been distinguished for example with the Emporis Skyscraper Award.

Jacques R. Saadé, building sponsor and founder of the CMA CGM Group, showed passionate enthusiasm for the design of the new company headquarters. Nothing was left to chance. From the choice of the textures and colours of the concrete to the layout and furnishings of the offices, everything was discussed in detail before implementation. Zumtobel participated in the development process with aesthetic technical lighting solutions. One challenge faced was how to integrate the lighting solution in the climatic ceiling. Zumtobel developed a special new casing for this requirement without compromising design or quality. The convincing solution from the experts is a micro-pyramid system (MPO+) that ensures excellent light distribution for a glare-free work environment in the offices.

CLIENT CMA CGM Group, Marseille/F
ARCHITECTURE Zaha Hadid Architects, London/UK
LIGHT AND ELECTRIC PLANNING Arup, London/UK
ELECTRICAL INSTALLATION Cegelec, Marseille/F

LIGHTING SOLUTION Special solution: TRIMLESS with micro-pyramid optic (MPO+), SLOTLIGHT light line, TECTON continuous row lighting system, PANOS A downlight

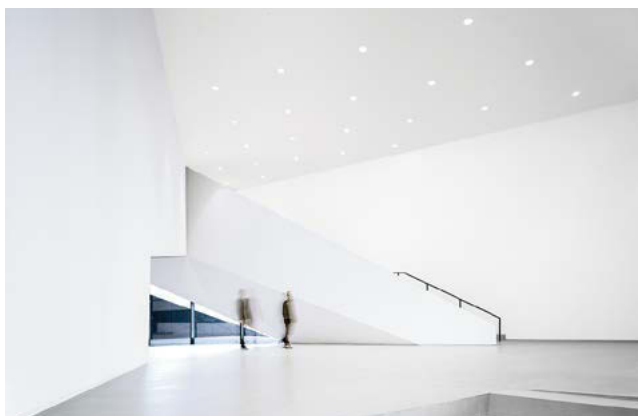


Tradition and progress Abu Dhabi Investment Council (ADIC), Abu Dhabi/UAE

The Al Bahar Towers are the newest addition to the Abu Dhabi skyline. For the structure, which consists of two cylindrical towers each with a height of 150 m, Aedas architects together with the engineering firm Arup developed an innovation for the extremely hot and sunny climatic conditions in Abu Dhabi. The façade, inspired by Arabian architecture, offers thermal protection while simultaneously allowing optimal use of the solar energy. All of these measures combined reduce the CO₂ emissions of the Al Bahar Towers, built in accordance with the LEED standard, by 40 %. The Zumtobel lighting solution supports not only the resource-saving concept, but also fulfils the requirements for modern office lighting and accents the architecture. The efficient downlights PANOS INFINITY and the recessed luminaire SLOTLIGHT II, which were adapted to the architectural requirements of the ADIC, create a pleasant and communicative work atmosphere. The vertical installation of the SLOTLIGHT II in the ceilings produces the impression that the light is moving toward the centre of the cylindrical building, therefore accentuating a central design element of the architecture.

CLIENT Abu Dhabi Investment Council, Abu Dhabi/UAE
ARCHITECTURE Aedas, Abu Dhabi/UAE
ELECTRIC PLANNING Arup, London/UK
ELECTRIC INSTALLATIONS BK Gulf, Dubai/UAE

LIGHTING SOLUTION PANOS INFINITY LED downlight, SLOTLIGHT II special solution, CLEAN cleanroom luminaire, LEDOS II surface-mounted floor luminaire



Brilliant classics

Festival Theatre in Erl/A

In the immediate vicinity of the Festival Theatre in Erl, which was established in 1957, the renowned architect team of Delugan Meissl has created a genuine gem. It is now the second stage for the Tyrolean summer festival productions in Erl and the only stage during the winter season. The clear architectural language of the new building takes special advantage of the surrounding landscape. In the summer, the dark façade blends in discreetly with the forested Tyrolean mountainscape. In the winter, when the bright Passion Play Theatre merges with the snowy landscape, the dark building is the star.

Such a gem of a building, with a usable area of 7,000 m² and more than 862 seats, demands an integral, innovative lighting concept that harmonises with the unusual form of the building – such as the distinctive accentuation of the wedge-shaped niches on the side walls of the large hall. Some 400 LED spotlights create a festive atmosphere inside the Festival Theatre. For the wall lighting and brilliant accentuation of the art exhibits in the foyer, the LED spotlight IYON is used, which was developed in an earlier cooperation between Delugan Meissl and Zumtobel.

CLIENT Strabag, Lukas Lang GmbH, Vienna/A
ARCHITECTURE Delugan Meissl Associated Architects, Vienna/A

LIGHTING SOLUTION CARDAN spotlight series,
IYON LED spotlight, MICRO S downlight, PANOS INFINITY LED downlight,
SUPERSYSTEM LED continuous row lighting system, TALEXX LED light line,
SLOTLIGHT LED light line



Innovative office concept

DBS Asia Central @ MBFC Tower 3, Singapore/SG

The move to its new headquarters, DBS Asia Central, at Marina Bay Financial Centre Tower 3 as Singapore's new financial centre underscored the bank's commitment to be the Asian bank of choice. Woodhead was commissioned to design an innovative office concept for the 600,000 m² floor space and to establish the workplace of the future while reflecting the roots, objectives and values of Singapore's largest bank. The new DBS Asia Central helps foster a strong sense of community and collaboration among employees. Spacious social hubs, inspired by traditional Asian markets, are the centerpieces of each floor that connects the lobby, workstations and meeting areas. Full glass windows in the common workspace allow employees to take a breather from work as they look out to Singapore's new skyline. In meetings rooms inspired by Asian meditation and Zen philosophies, those who have to do concentrated work find the calm and quiet they need.

The lighting concept plays an important role in helping to set the tonality and meet the requirements of each space. The lighting solution not only had to look aesthetically appealing but must also be highly energy-efficient in line with the building's Singapore Green Mark certification. In the social hubs PANOS INFINITY downlights and SUPERSYSTEM spotlights create a relaxed atmosphere while IYON LED spot-lights and PASO II recessed floor LED luminaires enhance the communicative mood. With their unobtrusive appearance and separately controlled direct and indirect light components, AERO II luminaires installed in the meeting rooms and offices provide ideal lighting conditions; MELLOW LIGHT IV recessed luminaires fitted in the trading departments create perfectly glare-free lighting at the computer workstations.

CLIENT Sweett Pte Ltd, Singapore/SG
ARCHITECTURE Woodhead Architects, Singapore/SG
ELECTRIC PLANNING J Roger Preston (S) Pte Ltd, Singapore/SG

LIGHTING SOLUTION PANOS INFINITY LED downlight, IYON LED spotlight,
SUPERSYSTEM light system, PASO II LED surface-mounted floor luminaire,
AERO II hybrid pendant luminaire, MELLOW LIGHT IV surface-mounted luminaire



Exemplary sustainability

City Green Court, Prague/CZ

In the City Green Court office building, natural green plays an important part not only in the outdoor areas, but can also be experienced inside the building. Eye-catchers include a large olive tree and the ivy-covered walls of the atrium. The architects Richard Meier & Partners Architects LLP from New York developed an integral sustainability concept for the eight-storey building, which was inspired by Czech Cubism. Besides the intelligent integration of daylight, this concept is based on a special ventilation system, which provides for natural air circulation and the use of rainwater for irrigation of the greenery-covered roof.

Even before completion of the construction in 2012 the City Green Court was pre-certified with a LEED Platinum Certificate, since the building already saved 22 % more energy than required for the certification. The sustainable lighting concept from Zumtobel also contributed to this outstanding achievement. The use of modern LED luminaires in combination with the LUXMATE professional lighting control system ensures optimal utilisation of daylight. The energy-saving lighting solution is additionally supported by presence sensors.

INVESTOR SKANSKA a.s., Prague/CZ

ARCHITECTURE Richard Meier & Partners Architects LLP, New York/US

ASSOCIATED ARCHITECTS CUBOID ARCHITEKTI, s.r.o., Prague/CZ

LIGHTING SOLUTION MELLOW LIGHT V surface-mounted luminaire, escape sign and emergency lighting ONLITE, LUXMATE professional lighting management system, PANOS INFINITY LED downlight, LINARIA light line



Intelligent use of resources

Vodafone Village in Milan/I

Like hardly any other Italian city, the fashion metropolis of Milan strives for ecological balance and sustainability. This can be seen at the new headquarters of the world's second largest telecommunications company: Vodafone. Through the intelligent use of resources, Vodafone Village, consisting of three networked buildings, has succeeded in reducing the environmental impact of more than 3,000 workplaces by half. A LEED Silver Certificate underlines the ambitious plans of the architects Dante O. Benini & Partner, which also demands maximum performance on the part of the involved partners. On an area of more than 67,000 m² Zumtobel implemented a versatile lighting solution that not only saves energy and minimises maintenance, but also fulfils the high standards with respect to aesthetics and light quality.

The solution provides a broad range of lighting functions: In the foyer, auditorium and skybar the architecture is masterfully enhanced to create a pleasant atmosphere, while ideal lighting conditions in the offices facilitate the diverse tasks performed there. Due to their comprehensive product portfolio Zumtobel were able to implement the right lighting solution for all areas of the facilities, including integration of a central emergency light control system, which not only ensures employee safety, but also contributes to the sustainable concept of the building through energy efficiency and user-friendly maintenance.

ARCHITECTURE AND LIGHT PLANNING Dante O. Benini & Partners Architects, Milan/I

ENGINEERING Studio AS ingg Srl, Milan/I

ELECTRIC INSTALLATIONS Milani Giovanni & C. Srl, Osnago Lecco/I

LIGHTING SOLUTION MELLOW LIGHT IV surface-mounted luminaire, SLOTLIGHT light line, PANOS INFINITY LED downlight, LUXMATE LITENET lighting management system



Light wonder
Katakeet Store, Dubai/UAE

The newest Katakeet Concept Store in UAE makes shopping a special experience for the whole family. Katakeet is a luxury children's wear store covering brands such as Burberry, Ralph Lauren, Dior and Fendi. Katakeet means baby chicks in Arabic and it's a word used to describe anything that's small and cute – like children. That sense of cuteness has been captured in an enchanting store in the famous Mall of the Emirates in Dubai. It is a unique boutique in the Middle East where children can let their imagination run wild while their parents shop for exclusive fashion brands for their little ones. The store not only has a unique design concept, with a brand signature created exclusively by British children's book illustrator Polly Dunbar, but also a bespoke lighting solution from Zumtobel.

The client required a lighting concept that complemented the Katakeet image and created an emotional shopping experience for the customers, young and old. While IYON, the modular CARDAN spotlights and SUPERSYSTEM spots illuminate the exquisite designer collections, PANOS INFINITY and MICROS LED downlights provide the right general lighting to emphasise the playful yet sophisticated atmosphere. The store in the Mall of the Emirates has been constructed with ecologically sensitive materials and finished with special emphasis on energy conservation and customer comfort. "Zumtobel Lighting provided excellent support in realising this unique fairyland for children and their parents," resumes Linton Crockford-Moore, Creative Director, Creative Eye Strategy & Innovation Chalhoub Group.

CONCEPT AND ARCHITECTURE Chalhoub Group, Jebel Ali, Dubai/UAE

LIGHTING SOLUTION IYON LED spotlight, CARDAN LED spotlight series, PANOS INFINITY and MICROS LED downlight, SUPERSYSTEM light system



Uncompromising store design
Bershka Flagship Stores, Barcelona/E, Frankfurt/D and London/UK

The Spanish textile chain Bershka is an expert on current trends and creates fashion for a young and discriminating clientèle. It was therefore important that the first flagship store in Barcelona fulfil several requirements. The architecture studio Castel Veciana converted the entire shop lighting to LEDs, without changing the established lighting concept at Bershka. Besides reducing energy consumption by 35%, the focus was on discreet integration of the luminaires in the architecture, as well as optimal, sales-promoting product presentation and exact colour rendering. Zumtobel convincingly fulfilled all of these criteria with the spot series IYON.

The characteristic distinction between the women's and men's departments at Bershka by using two different colour hues was achieved through the use of IYON, without compromising the typical light atmosphere. The women's and men's departments were therefore equipped with luminaires featuring white and black casings, respectively. The fitting rooms, on the other hand, share the same design with the high-efficiency downlight series PANOS INFINITY. The lighting concept convinced both the building owner and the customers. Meanwhile Bershka has opened two more flagship stores with a complete LED lighting solution from Zumtobel in Frankfurt/Main and London.

CLIENT Inditex Gruppe, La Coruña/E
ARCHITECTURE AND LIGHTING DESIGN Castel Veciana Arquitectura, Barcelona/E
LIGHT PLANNING Lledó Iluminación Coruña, La Coruña/E

LIGHTING SOLUTION IYON LED spotlight, PANOS INFINITY LED downlight, CARDAN LED spotlight system

Healthy Wave

Technogym in Cesena – dynamic lighting control enhances wellbeing of employees at new production site



PHOTOGRAPHS Jürgen Eheim TEXT Norman Kietzmann





At the very time when Sylvester Stallone and Arnold Schwarzenegger were showing off their muscles on the silver screen, a success story was also in the making in Italy. What the then 22-year-old Nerio Alessandri invented in his garage, however, was neither a computer nor a sports car. With the “Asterisco” model, the trained mechanic assembled the first home training machine with a design that did not clash with ambience of a living room. “Technogym” was the name given by Alessandri to his start-up, which he established in Cesena, near Rimini, in 1983. While he originally organised sales via the local phone booth, such temporary solutions have long been superseded. Today, the company has 2,200 employees and its products can be found in 50,000 fitness studios and more than 30 million private households throughout the world. This development is the result of a far-sighted realignment: in addition to muscle building, the machines were to fulfil the purpose of boosting well-being.

Since then, the idea of wellness has led to product developments for which scientists from MIT and other experts are often consulted. Also, the company headquarters in Cesena, which opened in 2012, is anything but a normal factory with an adjoining administrative building. Only a few kilometres from Nerio Alessandri’s old garage now stands a “Wellness Campus”, where products are produced, researched and discussed, with no small amount of perspiration. “We are not only a manufacturer of sports equipment, but also a service agency,” says Roberto Laureti, the technical manager responsible for building control and maintenance at Technogym. About 25,000 visitors are received every year on the 150,000 m² company

grounds, which includes a research center, a library, a fitness club, a health food restaurant and a conference center with 600 seats. Several hundred courses are offered – from classic training for sports trainers to motivation and leadership training for managers.

The task faced by the Milan-based architect Antonio Citterio and his partner Patricia Viel was as follows: To translate wellness into a structural framework that combines sustainable, eco-friendly construction with a high quality of well-being. That no ordinary assembly hall is to be expected here is immediately apparent. The 60,000 m² building is situated in the midst of a rolling park landscape and is crowned by a wave-shaped curved wooden roof. “The architecture plays a crucial role in the light planning,” Roberto Laureti emphasises. The entire building is divided into eight segments, each with a width of 18 m and a length of between 200 and 280 m. Seven segments combine to form the 32,000 m² production hall and warehouse, where assembly of the machines takes place. Continuous row lighting suspended from the ceiling extends the entire length of the hall, providing a brightness of 390 Lux for the assembly area. In the storage areas, located upstream and downstream of the production area, the brightness is reduced to 150 Lux. Sensors are used to adapt the intensity of the lighting based on the daylight conditions. The skylights, which follow the wave shape of the roof, ensure that even the middle of the hall is flooded with sunlight. In the afternoon hours and on overcast days the intensity of the artificial light is adapted to the reduced natural light, to create a constant perfect interplay of the two light sources, for well-balanced and pleasant lighting of the production hall.

The production area is separated from the 11,000 m² administrative building by a road flanked with trees. The slight curve of the wooden roof on the south side of the four-story building has a dual purpose: it not only provides an inviting gesture for arriving visitors, but also protects the fully windowed offices against direct sunlight and overheating. The offices are characterised by openness. The conference rooms, which have windows on all sides, feature round bean bags as seating for employees and guests, and the workplace is designed as an “open space” office. Narrow continuous row lighting accents the room, providing a colour temperature of 2,700 K for a warm, pleasant atmosphere.

The elliptical “Wellness Center” in the south end of the administrative building houses the public functions of the campus on an area of 4,000 m². To enter this area, visitors must first descend a spacious spiral staircase that winds through the entire building. While the wooden steps give a down-to-earth appearance, the impression on the bottom side is much different. Together with Zumtobel, Antonio Citterio and Patricia Viel developed a backlit LED solution to create changing colour and light moods. The southern part of the ellipsis houses the fitness centre, which also serves as a showroom for Technogym products. This room, which is flooded with daylight, opens onto the surrounding park with a glass curtain façade over two stories. All of the employees can exercise here during the week, and on weekends their families and friends can use the facilities free of charge.

The company also insists on balanced nutrition for the employees. The restaurant’s cooks use only seasonal vegetables from the surrounding region. Chocolate bars, on the other hand, have been banned from all vending machines. Instead, they are filled daily with fresh salads, fruits and other healthy snacks. The “wellness system key” prevents anyone from exceeding their personal limit. This data storage system records the training results and calculates the calories burned so far on a given day. With each fruit salad from the office vending machines, the number rises, providing a discreet recommendation for more exercise. By now it should be clear: Wellness in Cesena is not an activity that lasts only a few hours. It is an attitude that encompasses one’s entire life.

CLIENT Technogym spa, Cesena/I

ARCHITECTURE Antonio Citterio Patricia Viel and Partners, Milan/I

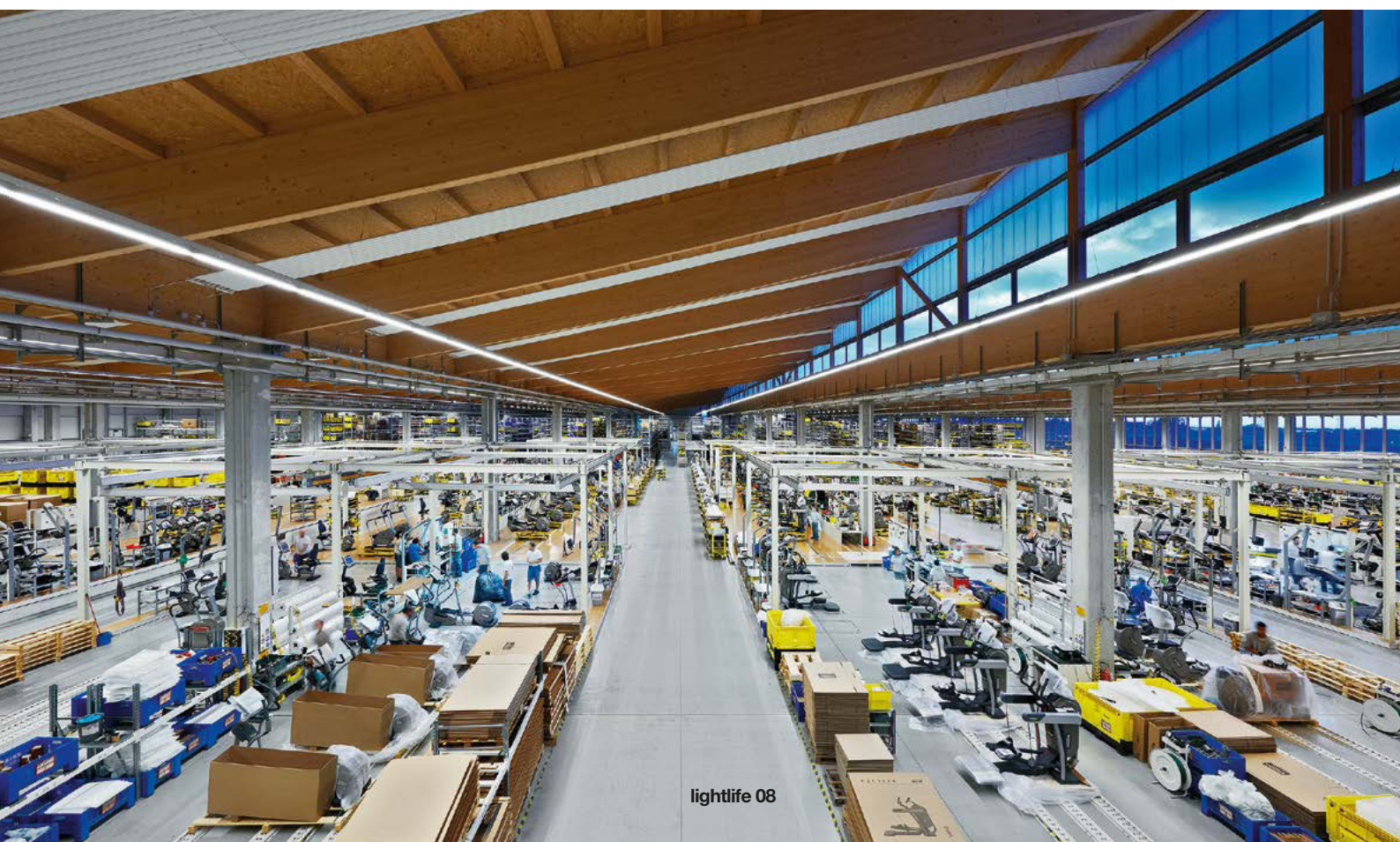
LIGHT PLANNING Antonio Citterio Patricia Viel and Partners, Milan/I

ELECTRIC PLANNING Studio R.B. Engineering, Modena/I

ELECTRIC INSTALLATIONS F.Ili Franchini, Rimini/I

LIGHTING SOLUTION TECTON continuous row lighting system, SLOTLIGHT LRO light line, LUXMATE LITENET lighting management system

For optimal illumination of the assembly hall the intensity of the artificial light is adapted based on the incident daylight.



Prized classics on the dissecting table

Modern LED technology at Ferrari Classiche in Maranello



PHOTOGRAPHS Jürgen Eheim TEXT Norman Kietzmann





Ferraris are not cars. They are dreams on four wheels. What sets them apart from the competition is more than just the sound of their motors. Nearly every model of Ferrari that has left the factory in Maranello since the company was founded in 1947 is still roadworthy. To keep things this way, a special service was established in 2006: Ferrari Classiche. The Classiche Department is anything but a normal auto repair shop. It is a combination of laboratory, sacred place and museum, where historic sports cars get some extensive freshening-up.

"We inspect, assess and restore some of the best and most expensive automobiles ever built," says Ferrari Classiche Director Marco Arrighi. The 950 m² hall, which formerly housed the foundry, is like a treasure chamber of motor vehicles: the birthplace of the Ferrari production has room for about 30 of the prized sports cars, which cost as much as 40 million US dollars. Vehicles that have reached the age of twenty years are considered "historic". The obsession with Ferraris is not limited to dyed-in-the-wool motorsport enthusiasts: Often manufactured in limited editions, they are a solid investment, with a reliable appreciation in value over the decades.

Only, however, if their authenticity is documented and this is where Ferrari Classiche enters the picture. To receive the coveted certificate of authenticity, the cars are inspected to verify conformity with the original specifications. "Our archive contains the original blueprints for all vehicles ever built by Ferrari," explains Arrighi. The majority of the cars have had several

owners, who often make modifications and conversions. But to obtain the Ferrari certification of authenticity we cannot accept compromises in this respect.

To restore the cars to their original condition, all components are checked based on the historic drawings. If it is discovered that any were replaced, the original parts can be duplicated in the foundry. The work of the Ferrari mechanics is similar to that of archaeologists, who precisely reconstruct and assemble a skeleton. "The balance between past and future is extremely important for Ferrari, which is why we have to defend out heritage – and that is not always easy," says Marco Arrighi.

It is hardly surprising that no oil or dirt is to be found here. Utmost precision is required – and that is only possible in the right environment. From August to September 2012 the Ferrari Classiche Department was thoroughly renovated. The goal: Light, in large quantities. The first step was to put windows in part of the roof, to let more light into the white factory rooms. To provide the employees with some relief from the foggy and rainy winters, Zumtobel developed a lighting system especially for Ferrari. "We decided to use LEDs in order to bring a new technology into the historic environment," explains Andrea Pettazzoni, responsible for technology and infrastructure at Ferrari.

Ten exquisite light lines with a length of up to 30 metres stretch through the room. They are assembled from 1.5 metre TECTON rails, which were equipped with the latest LED

“Sustainability and efficiency are very important for Ferrari. We decided to use LEDs in order to bring a new technology into the historic environment.”

technology. A decisive criterion for Ferrari was to make the luminaires appear as continuous lines, without the conventional gaps for the emergency lighting. To keep the lights from going out in case of a power outage, each third LED beam is supplied by a separate emergency power supply.

The intensity of the artificial light is continuously balanced against the brightness of the daylight, to provide constant illumination of the work tables with 1,000 Lux. “The light temperature of 4,000 K is somewhat warmer,” says Andrea Pettazzoni, “since most of the cars are painted red.” Another special feature of the lighting system from the Zumtobel engineers is that it is protected against dust in accordance with the degree of protection normal for Italy. The TECTON lighting solution developed especially for Maranello and which will be available on the market as a regular product starting in April 2013 is controlled by the LUXMATE PROFESSIONAL system.

“Sustainability and efficiency are very important for Ferrari, especially since almost the entire energy consumption is for lighting,” Andrea Pettazzoni emphasises. The LEDs use 45 % less electricity than conventional halogen metal vapour lamps, with twice the luminous efficiency. Obviously, the elegant appearance and the efficiency of the lighting system are factors of equal importance in this historic facility. Company founder Enzo Ferrari would hardly have done it differently.

CLIENT Ferrari s.p.a., Maranello/I
ARCHITECTURE Prospazio, Modena/I
LIGHT PLANNING Arch. Francesca Nasi, Carpi/I

LIGHTING SOLUTION TECTON IP50 LED continuous row lighting system,
LUXMATE PROFESSIONAL lighting management system

The exquisite light lines merge harmoniously into the supporting structure of the hall roof.



LED – the result makes the difference

Only with an intelligent luminaire can technology, function and design combine to form an integrated whole.

ILLUSTRATION Martin Mörck TEXT Roland Pawlitschko

Since the enormous benefits of LED lighting solutions with respect to ecology and economy are common knowledge, it is time to shed more light on the factors that are responsible for their high quality. Utilisation of the entire innovative potential of light-emitting diodes necessitates a mastery of the technology and consideration of the needs of people in the development of new luminaires.

As the amortisation periods become increasingly shorter due to more efficient technologies and larger production quantities, LEDs are being used more frequently in diverse lighting projects – in retail and residential premises, offices, museums and industrial facilities. In many applications they are an extremely space-saving and especially cost-effective solution. Conversion to modern LEDs as a light source can reduce energy consumption and the CO₂ footprint by up to 30 %. Further savings potentials of up to 50 % are possible through the use of a dynamic lighting management system for the intelligent use of light by controlling the light intensity, for example. Other advantages of LEDs over fluorescent lamps: they contain no toxic substances such as mercury, they provide full light immediately after being switched on and suffer no negative effects from frequently being switched on and off – with low maintenance costs, long maintenance intervals and a life of up to 20 years or more, depending on the hours of use.

One thing that is often overlooked in view of these advantages, however, is that the decision to use LEDs is only a first step. After all, it is necessary to use technologically advanced luminaires, without which it would not be possible to take advantage of the benefits mentioned above. In the interest of a better understanding of the general context, it is useful to take a look at the corresponding development and design processes. At Zumtobel there are two essential driving forces for innovations:

technology and human benefit. The perfect interplay of these two factors is necessary in order to produce lighting solutions that are both aesthetic and functional. For a luminaire manufacturer like Zumtobel it is essential not only to have a mastery of LED technology, but also to recognise and accommodate the visual, emotional and biological needs of people.

Decisive in this respect are integrative design processes, in which all relevant parameters are incorporated in a design that is sustainable in every respect. This can be illustrated based on the example of thermal management. LEDs, especially those with high operating current, produce waste heat, which has to be dissipated into the environment – high temperatures would drastically reduce the life and the efficiency of the light-emitting diodes. The active systems that are needed for this not only require additional ventilation units; they also have a negative effect on energy efficiency. For this reason Zumtobel luminaires of the latest generation are cooled only passively. Depending on the luminaire type, different heat conducting plates and ribs are necessary, which – as in the case of the LED spotlight DISCUS Evolution – can also considerably affect the design of the luminaires. In an integrative design process, such requirements are by no means an interference factor, but rather a self-evident influencing variable. In the case of the Zumtobel LED high bay luminaire GRAFT (see page 58), for example, the ribs are arranged so that they produce a kind of chimney effect between the LED board and the centrally positioned converter – allowing significantly better thermal dissipation while reducing the accumulation of dust and its detrimental thermally insulating effects.

In the end, such subtle detail positively influences the luminaire efficiency factor. This figure, stated in lumens per watt, results from the sum of the efficiencies of the control gear, the

**Design**

The perfect coordination of LED light source and optic allowed an even flatter and more delicate language of forms, which with classic lamps was not possible.

Lenses

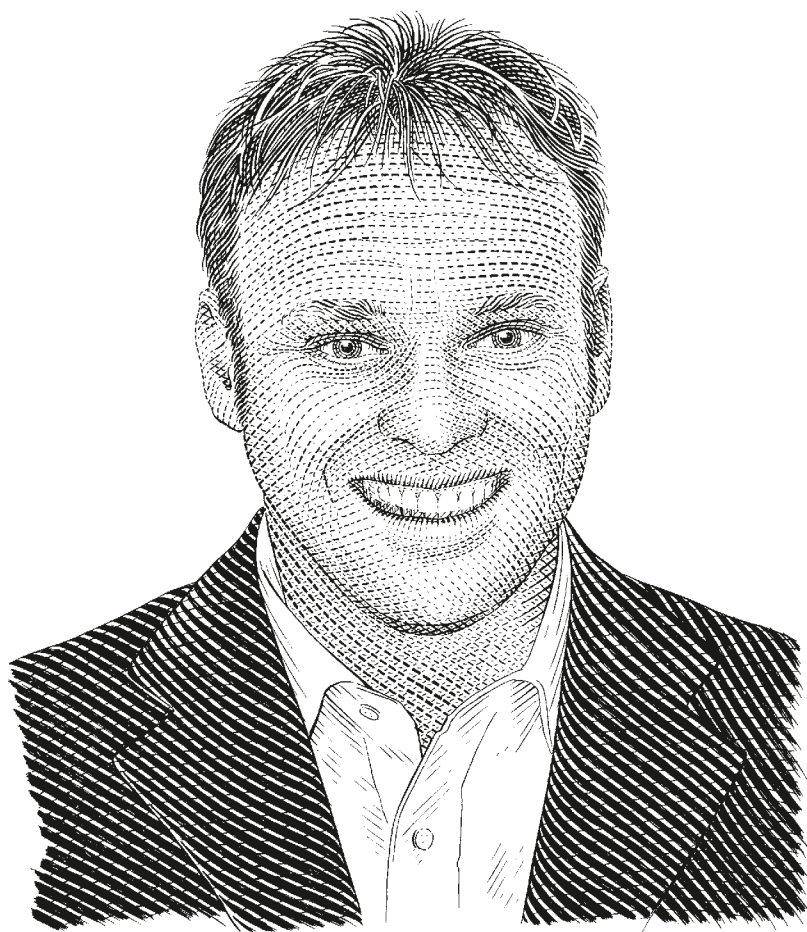
Optimised for the LED boards, the lenses achieve precise light distribution.

LED board

The LED board developed by Zumtobel is optimised for efficient and high-quality accent lighting and enables an especially flat design of the luminaire.

Passive cooling

For an LED high-power spotlight, cooling plays an important role; thermal management is an integral part of the design concept.



“Not only has the luminaire industry undergone radical change as a result of the LED; the requirements of our customers and users have also changed due to global trends. Understanding these requirements is the point of departure for the design of our products. Thanks to consistent continued development we offer a comprehensive LED product portfolio for all applications, with a flexibility that will offer measurable added value for years to come.”

Christoph Mathis, Director Product Management, Zumtobel Lighting

lamp and the optical efficiency, and serves as a decisive criterion of quality for the overall efficiency of LED luminaires.

Numerous other details, which primarily have to do with the light quality, show that advanced technical solutions by no means affect only the function and life of luminaires, but also directly affect the well-being of people. The quality of the perceptible light is defined by the colour temperature, maximum quality colour rendering and minimal colour deviation – which is ensured for example by the careful LED selection (bin). In the allocation of bins to luminaires it is important to watch out for colour deviations (MacAdams). A lower MacAdams number means a more homogeneous interaction of the LEDs within one luminaire and between different luminaires. No less important, however, is to illuminate exactly those areas that actually need light. For this purpose, suitable light distribution is just as necessary as the use of precision-formed plastic lenses for the specific luminaire. Mounted directly above one or more LED lamps, they can bundle the light or direct it at specific angles. By means of optimised guiding of light it is possible to prevent the formation of unpleasant multi-shadows or after-image effects as a result of numerous LEDs arranged side by side that can have a negative effect on the ability to concentrate. Better lighting quality can also be achieved with high-quality converters, which prevent disturbing flickering of the LEDs.

As opposed to fluorescent tubes, LEDs, due to their unidirectional construction, radiate only in a half-space and therefore are not suitable for direct-indirect lighting. To obtain pleasant atmospheric light with office pendant luminaires, for example, Zumtobel developed the LINCOR linear luminaire, which can also be used for indirect lighting of ceilings. The challenge is to indirectly couple out the high luminous flux on the ceiling as evenly as possible with resolved light points and a wide beam, without excessive loss despite the extremely compact design.

The result is a lighting solution that provides optimal light conditions at a relatively low additional cost, with low material and space requirements.

Such technical developments are possible only with the development and installation of consistently high-quality components from reliable partners, which then enable integral lighting solutions in combination with the needs of people. This requires interdisciplinary thinking, creativity and know-how, as well as, suitable labs that ensure standardised measurement conditions. Zumtobel meanwhile also has acquired a simulation software, which is used primarily for analysis of aerodynamics in the automotive industry. The software allows virtual analysis of parameters such as the heat/air flow properties inside the luminaires – without time- and cost-intensive iterative cyclic processes involving prototypes, tests, analyses, further development and renewed prototypes. Even with such tools, high standards of quality in any innovation process always result in relatively high product costs. However, this is the only way to produce lighting solutions with outstanding and consistent quality – all the way to the end of the life cycle. Information on the minimal environmental impact of Zumtobel LED luminaires can be found in the environmental product declarations (EPD), which are based on ISO standards and document the low use of energy and resources based on detailed life cycle analyses. As energy-efficient single components, LED luminaires often positively influence the environmental certifications of entire buildings. This was impressively confirmed by the Watt d'Or 2013 recently awarded to Credit Suisse by Switzerland's Federal Office of Energy (BFE) for top achievements in the field of energy.

10 criteria for responsible LED luminaire manufacturers:

- | | | | |
|---|---|----|--|
| 1 | Provision of detailed and sound luminaire data on the basis of accredited lab measurements | 6 | Luminaires with information on user- and task-specific MacAdams variances in the light colour |
| 2 | Compliance with and documentation of basic standard requirements , such as information on reducing glare | 7 | Provision of sound cost analyses for LED luminaires (e.g. ecoCALC) |
| 3 | High luminaire efficiency due to outstanding technological standard – in the interest of environmental protection and low energy costs | 8 | Comprehensive lighting solutions – including light management for adaptation of light scenes to specific requirements |
| 4 | Provision of sound environmental product declarations (EPD) | 9 | Light planning with respect to future sustainable maintenance factors for the luminous flux feedback of the LEDs |
| 5 | Thermal management measures as an essential part of the luminaire construction process | 10 | After-sales service and 5-year guarantee |

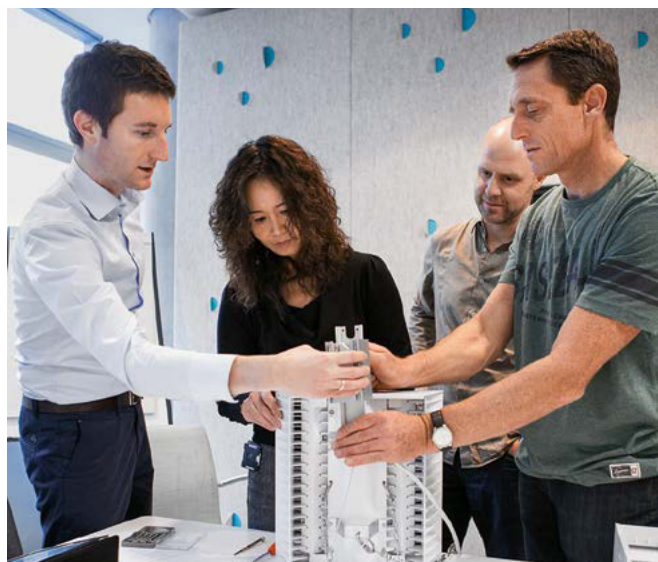
The best of both worlds

Zumtobel worked together with an interdisciplinary team from the renowned engineering firm Arup to develop GRAFT, the company's first LED hall light

TEXT Roland Pawlitschko

Industrial luminaires positioned at great heights not only have to provide high-quality light and be easy-to-install, they also have to be practically maintenance-free. Another important aspect is energy efficiency, which can be improved through innovative technologies and intelligent lighting controls.

As a result of discussions with business customers and sales and local field marketing personnel at the beginning of 2012, Zumtobel Product Manager Adam Burton became aware of "a clear need for industrial luminaires that meet all of these requirements." The company therefore began searching for a partner for the joint development of GRAFT, Zumtobel's first high bay LED luminaire. There are several reasons why Zumtobel chose to work with Arup. On the one hand, Arup is a multidisciplinary engineering firm with global operations and extensive experience in the implementation of industrial buildings as a result of planning and consulting activities in architecture and design, on the other hand, Arup has experience in product design and lighting design, but has designed very few luminaires. This resulted in an impartial approach, in addition to constructive input from international colleagues. Arup Industrial Designer Stephen Philips also points out the common ground in the philosophy of the two companies: "With innovation and maximum technical performance we both always strive for the best solutions for people."

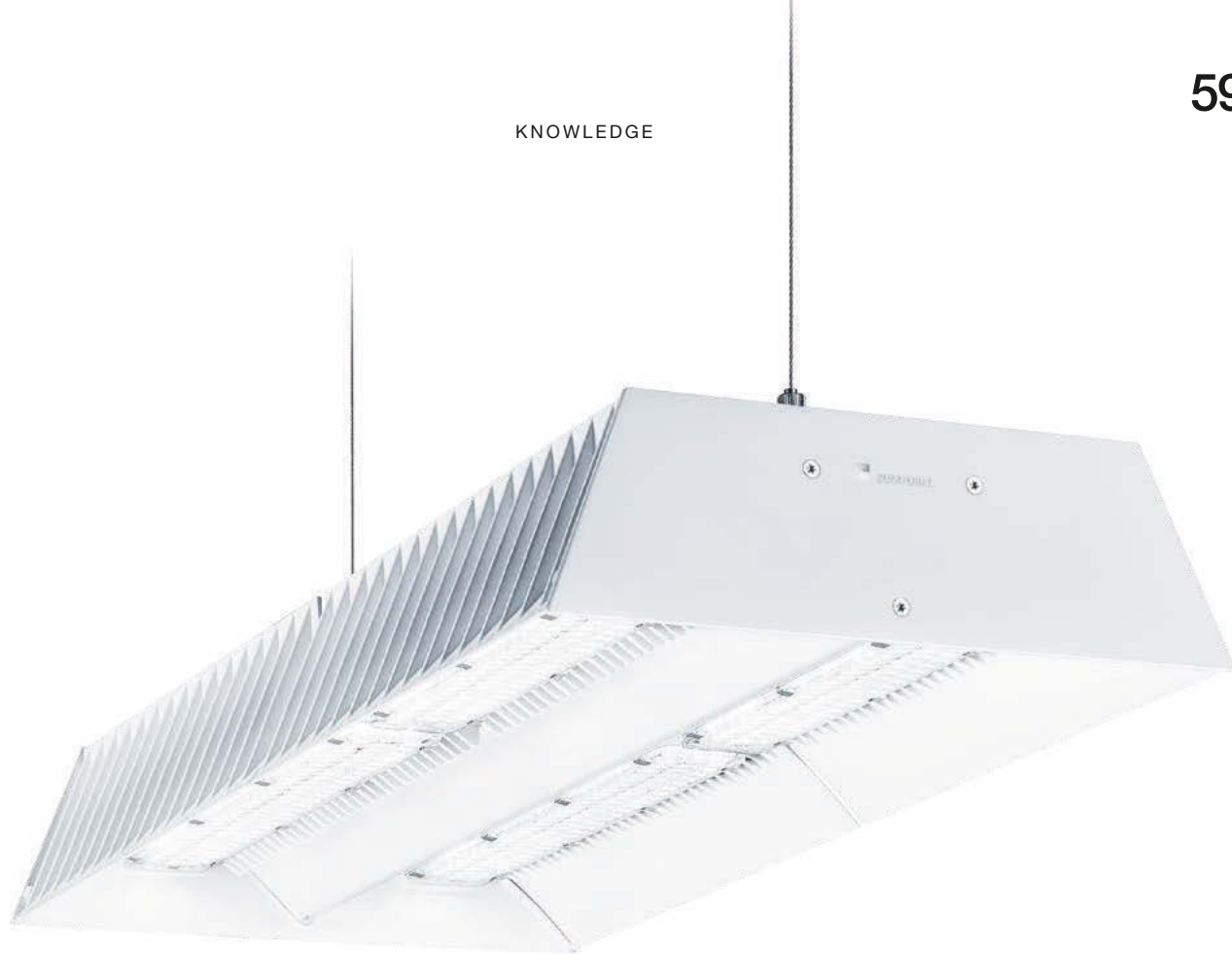


Co-design with Arup

The project started off with several days of workshops, with a team of seven Arup material specialists, product and light designers, as well as LED experts from Zumtobel. The first task



The perfect interplay of details enables optimal thermal management with GRAFT.



“With GRAFT, we succeeded in developing a truly archetypal industrial luminaire.”

Stephen Philips, Industrial Designer at Arup

was to clarify the technical, design and user-specific requirements and then to jointly define the most important benchmarks of the luminaire and to manufacture the first models and prototypes. “We had the unique opportunity to develop a truly optimal light: more compact and maintenance-friendly, with even lower power consumption and ideal light quality for the planned area of application,” says Stephen Philips.

The result of the iterative design process was a discreetly elegant product with an aluminium casing, whose rectangular shape enables substantially better light distribution than conventional solutions. One distinct characteristic is the clear form, which resulted in part from the feedback and the market expertise of the global Arup team. Another important element is the use of innovative lens optic technology. Each LED has a single lens which is used to achieve one of the two lighting distributions that are optimised for the target applications – wide beam with a square distribution or narrow beam. Both distributions are available with neutral white (4,000 K) and daylight white (6,500 K) light. The form of the dust- and moisture-proof casing (IP65) enables optimal lateral glare control ($UGR \leq 22$) for the safety of users.

“GRAFT is the result of a design process in which – due to constant reduction to the essential – form and function merge

to create an integrated whole,” Adam Burton sums up. This is reflected for example in details such as the LED boards located on both sides of the centrally positioned converter, which enable optimal thermal management due to air circulating through the luminaire. Together with a ribbed structure, the “chimney effect” optimises passive cooling while also preventing the harmful accumulation of dust, which disrupts the thermal management of the product. This is especially important in high bay applications, where the luminaires are hard to access for maintenance purposes. In the interest of simple and flexible solutions that are easy to control and expand, GRAFT can be either suspended or mounted on a single TECTON trunking.

With only one year between the start of the project and the market launch in April 2013 the team implemented an unusually short design process, based on the goal-oriented and productive synergy between knowledge and experience on the part of both manufacturer and user. The result is a product that, due to its technical and design standards, is conceivable not only in industrial facilities and warehouses, but also in trade fair buildings, multi-purpose halls or airports. “For us, GRAFT implements all of the design requirements that we had on our ‘wish list’ from the very start,” says Stephen Philips. “I think we succeeded in developing a truly archetypal industrial luminaire.”

Individualist or juggler?

The profession of architecture is in a process of radical change and that is good.



ILLUSTRATION Blagovesta Bakardjieva TEXT Wojciech Czaia

"You can't just be a star, someone has to make you a star," says the German architect and designer Hadi Teherani. "But I am glad to accept this status. It is a big compliment. Besides, a little extrovertedness never hurt anybody." Teherani is considered a mastermind in the German architecture and design scene. Newspapers and magazines are after his story, they invite him to test drive cars, ask for cooking tips and his favourite recipes, commission shoe designs and concepts for bathroom tiles and wallpaper. "I don't embody just one thing," he says. "I am a little of everything."

Hadi Teherani is not an exception. There may not be many stars like him, but nevertheless at least a few dozen. However, the demand for self-made architecture stars is declining. The isms and styles are gradually coming to an end. Individualism is being replaced by constructive cooperation, the many-faceted result of diversified competences and perspectives. How many planners today can seriously claim to be an attraction for tourism and identity? "When a German city advertises itself, then it does so with my buildings. Entire groups of tourists get off their buses to look at a building from BRT." But how much longer?

"Into the Nineties, clients focused especially on unique buildings and the architects were celebrated in the media,"

says corporate consultant Paul Nakazawa. "But everything in between was ignored." The native of Chicago with Japanese roots provides consulting services to architects and architecture studios around the world.

"Today we are in a good position. We are in an era in which the meaning of the building itself is less important, giving way to what is in between." No one can afford to focus only on single buildings any more. Instead, according to Nakazawa, the focus is on intermediate spaces, free space design and the infrastructure in urban living space. Taking a deep breath, he concludes: "I can say it even more succinctly: The actual task of architects will be to create networks and to join together in planning new structures."

Is that the beginning of a new era? In fact, the number of projects characterised by partnership and intensive cooperation is increasing. Architects cooperate with landscape planners, graphic designers and artists, with sociologists, demographers, economists and regional politicians. The priority is no longer the hallmark of the originator, but rather the quality of the product. The more diverse and complex, the better.

The classic profession of architecture is in a process of radical change – away from the individualist and toward the juggler and director of different disciplines. This includes the gradual emancipation of the citizens. People demand their due, they want to have a say in planning, they want to influence the design of dwellings and even form independent groups, if necessary, to put their ideas into reality. The inclusion of different opinions and the integration of people in different planning and construction processes is only a matter of time and political statement.

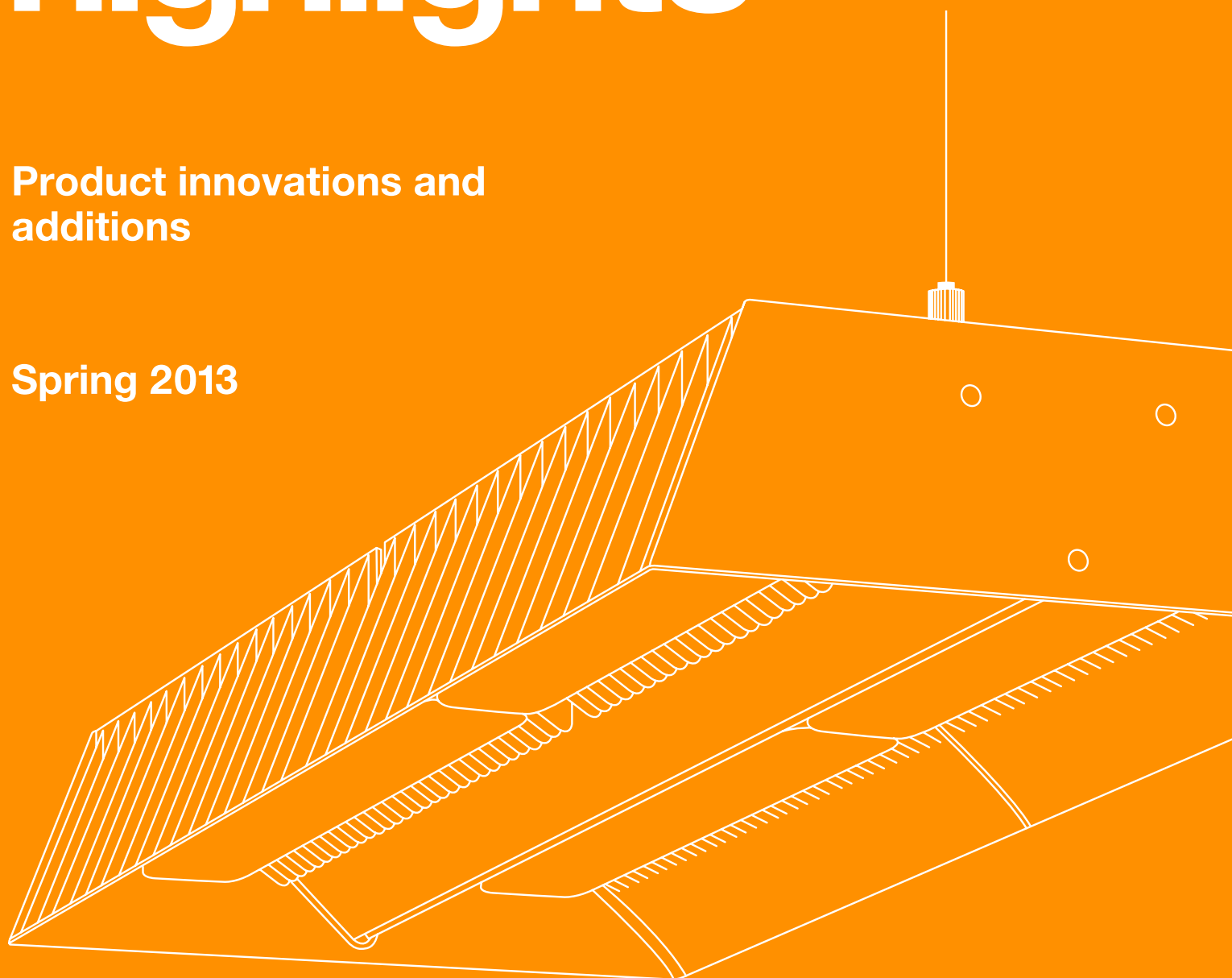
Whether this opening-out toward consumers and the public is compatible with the concept of star architecture is an open question. "As a rule we architects have been brought up so that we live almost exclusively within the community of our caste," says Hadi Teherani. "Only rarely can we move out beyond these circles and free ourselves." It is high time to go out into the present.

WOJCIECH CZAIA was born in Ruda Śląska, Poland in 1978 and has lived in Vienna since 1981. He studied architecture at the Technical University of Vienna and now works as a freelance architecture journalist for daily newspapers and trade magazines. He is also the author of numerous published books. Since 2010 he is a guest professor at the University for Applied Art in Vienna.

highlights

Product innovations and
additions

Spring 2013



1 **GRAFT**

2 **eBox**
ONLITE central

3 **MAINTENANCE**
Zumtobel Services

4 **LINCOR**

5 **DIAMO**

6 **PANOS** INFINITY WW E150

7 **PANOS** INFINITY E100

8 **PANOS** INFINITY A Q227

9 **PERLUCE** LED

10 **ECOOS** LED

11 **TECTON** LED IP50

12 **TECTON** LED high output

13 **SCUBA** LED efficiency upgrade

14 **CHIARO II** LED efficiency upgrade

15 **METRUM**

16 **CLEAN** advanced LED

17 **ONLITE RESCLITE** high ceilings

18 **TECTON** PST

1

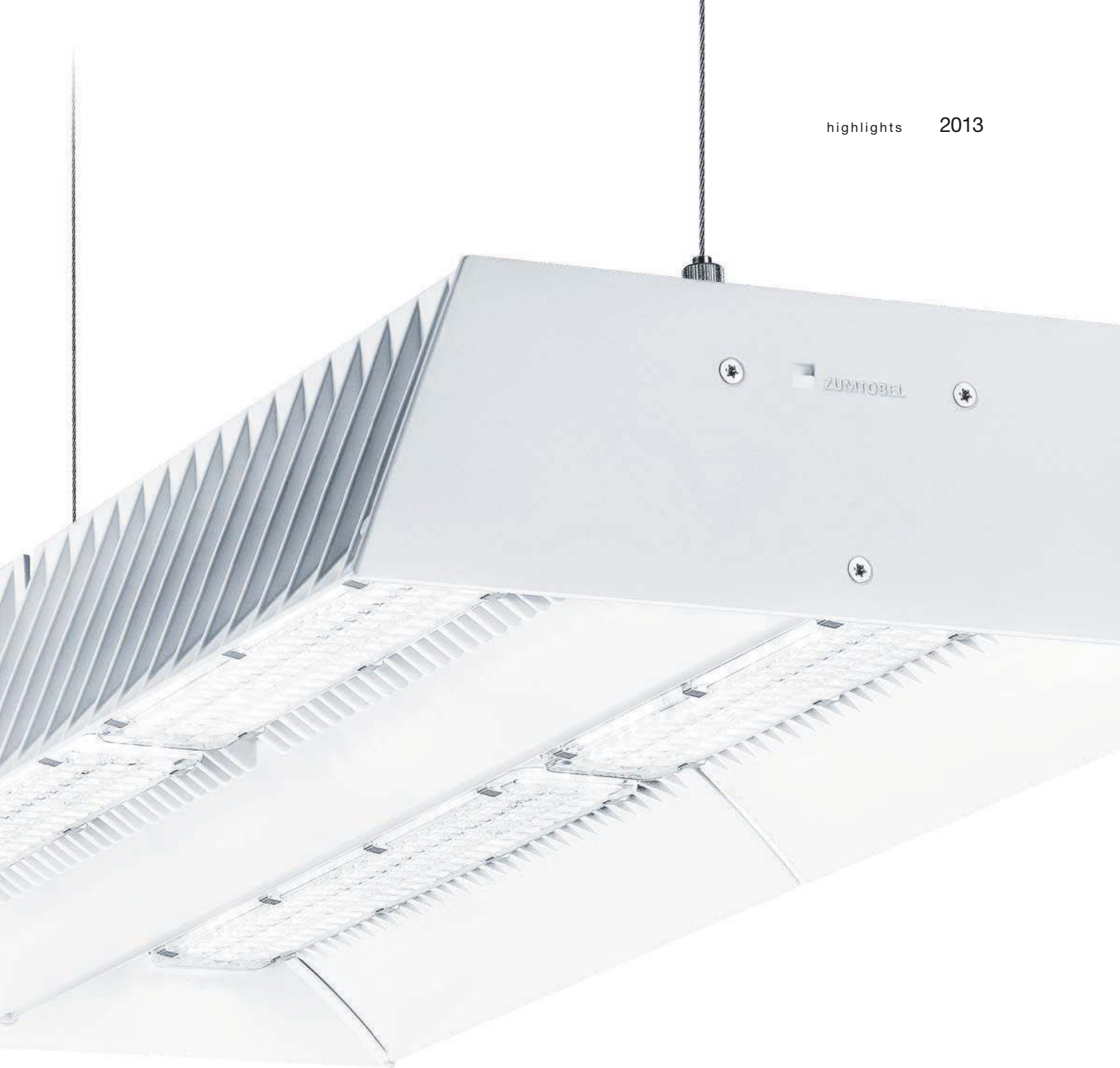
GRAFT

LED-High-bay Luminaire

With a luminous power of up to 28,000 lumens, GRAFT is a top performer in a wide range of applications. GRAFT provides precise light direction for square or narrow-beam light distributions. Luminous fields that do not overlap add extra uniformity and efficiency to every lighting solution. Therefore, fewer luminaires are required and investment costs are significantly reduced. The luminaire is available in neutral white (4,000 K/CRI Ra 80/88 lm/W) or cool white (6,500 K/CRI Ra 70/100 lm/W) making it the optimal solution for almost any application – whether in warehouses, factories, sports facilities or exhibition halls.

The carefully engineered housing and reflector concept combined with the innovative lens optics ensure an optimised light distribution and glare control (UGR 22) – which in turn ensures excellent lighting quality. This results in a pleasant lighting atmosphere that helps enhance the safety and wellbeing of those working in the application. The minimum effort required to install the luminaire is another major benefit of GRAFT: thanks to its compact dimensions and low weight, GRAFT can be quickly and easily installed at high mounting heights – both suspended or directly mounted on a single TECTON trunking. Optimised thermal management and a protection rating of IP 65 ensure a long product life, delivering further benefits in all applications. By using only high-quality materials combined with special manufacturing processes (die-cast aluminium) and a protected design that incorporates a chimney effect for excellent thermal management, Zumtobel managed to develop an LED luminaire for high ceiling use that features a level of unprecedented quality and durability. The chimney effect performs two functions, drawing away both heat and dust from the luminaire. This aspect further supports the long product lifetime and ensures that maintenance requirements can be significantly reduced. Crucially for this sector, energy consumption can also be reduced, thanks to combination of LED technology and a dimmable converter as standard, making GRAFT a viable and cost-effective investment in the future.





2

eBox ONLITE central

Fascinating efficiency: the new ONLITE central eBox is the first TÜV-certified central emergency power supply system available on the market. Used in combination with LED emergency and escape-sign luminaires, eBox saves as much as 60 % energy and allows the use of smaller batteries. Moreover, eBox improves safety in the building in various respects. In just a few steps, intuitive installation assistance ensures that the system is ready for use and safe operation. Everyday maintenance is just as simple as installation: web-based remote maintenance of the system is possible at any time, without the need for any additional software. The built-in DALI memory function (DMF) ensures compatibility with various DALI systems, enabling separate switching or dimming of each emergency luminaire. Thanks to a subdistributor with an IP 20 and IP 65 protection rating, and a fire-proof subdistributor in E60, the eBox is much more than just an emergency power supply system; it can be upgraded any time as required, and is capable of operating up to 600 luminaires.

zumtobel.com/ebox





3

MAINTENANCE

Zumtobel Services

For a lighting solution to be able to achieve maximum performance – even after changes in operation or layout – the system must be serviced and optimised on a regular basis. Zumtobel accepts this challenge and offers its customers the MAINTENANCE silver, gold and platinum service level agreements. Thus, depending on the package, Zumtobel provides a solution that is perfectly matched to the customer's requirements.

The services focus on the dimensions of lighting quality, energy efficiency and safety. Service that is beneficial in terms of cost: by optimising the system on a regular basis, energy consumption can be reduced by up to 15 percent. Moreover, consistently perfect lighting quality increases the employees' productivity and reduces the risk of accidents. Depending on the service level required, three different service options are available: the basic agreement called MAINTENANCE silver, the more comprehensive version MAINTENANCE gold, and the all-encompassing solution MAINTENANCE platinum. With 75 branches in 57 countries and a wide range of competences from engineers to electricians, Zumtobel creates optimum conditions for keeping your lighting investment as profitable as possible, on the first day and in the future.

zumtobel.co.uk/maintenance

Zumtobel Services. Maximise the return on your lighting investment.



MAINTENANCE	platinum	gold	silver
Services			
Direct access to Zumtobel experts	•	•	•
Knowledge base access	•	•	•
Zumtobel service guide	•	•	•
Reactive services			
On-site incident support (visits)	4	2	2
Telephone incident support (hours)	unlimited	5	3
Remote incident support (hours)	unlimited	5	3
Preventive services			
Annual maintenance (visits)	4	3	
Remote maintenance (hours)	5	4	
Audit energy and lighting quality (visits)	2		
Zumtobel platinum certificate	•		
Privileges			
Call-out charges discount on standard prices	•	•	•
Spare part discount on list prices	•	•	•
Discounts on systems and maintenance training	•	•	



4

LINCOR

LED-Pendant Luminaire

Efficiency meets design. The LINCOR pendant luminaire proves that these two terms by no means contradict each other but are a perfect combination. In line with the spirit of our time, the luminaire is slim and minimalist in design. With a cross-section of 6 x 6 cm, LINCOR forms a perfect axis through the office. Its design enhances architectural structures and blends into almost any environment. Boasting a luminaire efficiency factor (LEF) of 88 lm/W combined with a large direct light component of 83 %, the pendant luminaire is also a top performer when it comes to sustainability and quality. Thanks to its innovative lighting technology, combining a primary optic for breaking up the light points, LED mini-cells for glare control and uniform indirect light distribution, LINCOR achieves outstanding lighting quality.

zumtobel.com/lincor



5

DIAMO LED-Downlight

A diamond in the world of ceiling-recessed luminaires. Despite its compact dimensions and diameter of 68 mm, DIAMO boasts unique luminous power of up to 1,250 lumens – and brilliant lighting quality. High-performance LED modules, a variety of colour temperatures (CRI 90 with 3,000 K / CRI 80 with 4,000 K) and a choice of three reflectors featuring different beam patterns (30°, 40°, 55°) ensure powerful high-precision accent lighting, which makes DIAMO the ideal partner for sophisticated applications in hotels, shops and offices.

In addition to its excellent performance, DIAMO cannot fail to impress thanks to its minimalist and elegant design. DIAMO, which was developed in collaboration with the Bartenbach Lighting Laboratory, is a timeless, elegant luminaire ensuring brilliant lighting quality.

zumtobel.com/diamo

6

PANOS INFINITY WW E150
LED-Downlight range



Thanks to the highly specular asymmetrical reflector with micro-pyramidal optic (MPO+), the latest model from the wallwasher range boasts impressive lighting quality at all times for extremely uniform wall illumination. Available in two colour temperatures (3,000 K and 4,000 K) with a colour rendering index of Ra 90, the luminaire is suitable for any task, no matter whether in offices or retail spaces, creating a perfect room atmosphere and high visual comfort. A luminaire efficiency factor (LEF) of up to 70 lm/W and a service life of at least 50,000 hours at 80 % luminous flux are proof of the PANOS INFINITY WW E150 luminaire's sustainability.

DESIGN Christopher Redfern
zumtobel.com/panosinfinity

7

PANOS INFINITY E100
LED-Downlight range



Tried-and-tested quality, new dimensions: another model has been added to the multi-variant PANOS INFINITY range – PANOS INFINITY E100 (diameter: 100 mm). The use of innovative "low" reflectors and "high" reflectors combined with darklight features ensures excellent lighting quality. PANOS INFINITY E100 is also outstanding when it comes to efficiency – it boasts a luminaire efficiency factor (LEF) of up to 85 lm/W.

DESIGN Christopher Redfern
zumtobel.com/panosinfinity

8

PANOS INFINITY A Q227
LED-Downlight range



With its square and contemporary design, the latest PANOS INFINITY A luminaire follows the most recent trend involving cubic shapes. Available for a variety of PANOS INFINITY Q luminaire models, PANOS INFINITY A Q227 is suitable for many applications –

in offices and for communication. Being part of the PANOS INFINITY A range, this model, too, meets the highest demands in terms of energy efficiency and sustainability.

DESIGN Christopher Redfern
zumtobel.com/panosinfinity

9

PERLUCE LED
Wall and ceiling luminaire



The new generation of PERLUCE, an already popular feature has been further improved: thanks to optimised LED lighting technology, PERLUCE cannot fail to impress with extremely uniform light distribution. In addition, due to the high protection rating of IP 54, the low-maintenance luminaire can be used in almost any environment without any troubles. With a luminaire efficiency factor (LEF) of up to 100 lm/W, PERLUCE sets new standards in terms of sustainability and cost savings as well: it often takes less than two years for the acquisition costs to be paid for by energy cost savings.

DESIGN Stefan Ambrozus
zumtobel.com/perluce

10

ECOOS LED
Pendant Luminaire



ECOOS meets all requirements of a contemporary LED office luminaire. Thanks to the innovative combination of micro-pyramidal optic (MPO+) and pearl diffuser, ECOOS allows an interplay of direct and indirect light components that are unique for LEDs: 360° light distribution providing high visual comfort and maximum glare control. In addition to its outstanding lighting quality, the luminaire cannot fail to impress with an extremely high luminaire efficiency factor (LEF) of more than 85 lm/W, combined with a large direct light component of 72 %. Available as a pendant or surface-mounted luminaire, ECOOS' most recent level of evolution makes it particularly flexible. It enhances any architectural and lighting design concept for offices, thanks to its contemporary and timeless design.

zumtobel.com/ecoos

11

TECTON LED IP50
Continuous-row lighting system



On account of its high IP rating, TECTON LED IP50 provides maximum robustness and thus opens up new ways of using TECTON in industrial applications. The fully sealed and protected LED lighting

chamber ensures improved protection from dirt, resulting in extended maintenance cycles. Thanks to a choice of colour temperatures (4,000 K and 6,500 K) and the wide/narrow-beam optics available, the luminaire can be flexibly used to create a pleasant lighting atmosphere – especially when combined with daylight and daylight-based control.

DESIGN Nicholas Grimshaw/Billings Jackson Design
zumtobel.com/tecton

12

TECTON LED high output
Continuous-row lighting system



Perfect efficiency: thanks to innovative lighting technology, TECTON LED high output (ho) allows to considerably extend the spacings between luminaires installed in the continuous-row system without having to reduce the quality or quantity of light. The result: higher efficiency (luminaire efficiency factor 112 lm/W), more light. In brief: the investment will pay off more quickly.

DESIGN Nicholas Grimshaw/Billings Jackson Design
zumtobel.com/tecton

13

SCUBA LED efficiency upgrade
Moisture-proof luminaire



Perfectly combined functions and design. Considerable improvements were again made to the new generation of the highly functional SCUBA LED luminaire that delivers great lighting quality in the face of dust, dirt and moisture – and cannot fail to impress with an outstanding combination of light output (6,500 K, 4,350 lumens), improved efficiency (luminaire efficiency factor 95 lm/W) and perfect light distribution.

DESIGN Massimo Iosa Ghini
zumtobel.com/scuba

14

CHIARO II LED efficiency upgrade
Moisture-proof luminaire



CHIARO II – the moisture-proof luminaire featuring a transparent polycarbonate housing that provides an all-round pleasant lighting atmosphere. An innovation that has been optimised even more for the latest generation of luminaires: thanks to an intelligent combination of light output (4,250 lumens), improved efficiency (luminaire efficiency factor 88 lm/W) and lighting effect, the luminaire continues on its path to further success. Indirect light is provided by light exit points situated to the left and right of the board, ensuring a more harmonious appearance as well as better lighting quality and creating a pleasant atmosphere, for instance in underground car parks.

zumtobel.com/chiaro

15

METRUM

Continuous-row lighting system



Less complex, more modular: the modular system is considerably less complex than conventional systems – and yet includes all essential options required for fulfilling a large number of lighting tasks. Sometimes less is indeed more: in this case, savings are achieved by less design and installation effort. The simple “plug&play system” ensures that METRUM can be installed quickly and easily. Thanks to various light distribution options, the METRUM luminaires can be used very flexibly. New technologies make METRUM a highly efficient solution that is particularly attractive in economic terms.

zumtobel.com/metrum

16

CLEAN advanced LED
Clean room luminaire



Advanced LED is the most recent addition to the CLEAN cleanroom luminaire range – and cannot fail to impress thanks to significant optimisation of efficiency and light distribution due to LED technology. Certified for cleanrooms in compliance with DIN EN ISO classes 3 to 9, CLEAN advanced uses a special micro-prism optic to provide perfectly uniform and homogeneous illumination. There is a choice of two square models (598 mm/623 mm long) and 2 linear models (1,198 mm/1,248 mm long, 298 mm/310 mm wide) as well as a variety of lumen output levels (standard lumen output 4,000 lumens, high lumen output 6,100 lumens), which makes CLEAN advanced extremely flexible – and highly efficient (luminaire efficiency factor 82 lm/W).

zumtobel.com/clean

17

ONLITE RESCLITE high ceilings
Emergency luminaires



ONLITE RESCLITE high ceilings (hc) meets the highest demands for emergency luminaires. This is meant in a quite literal sense. Suitable for heights of up to 20 metres, ONLITE RESCLITE hc is at present a unique solution on the market. No matter whether used for warehouses, industrial or engineering applications: the rugged IP 65-rated emergency luminaire requires little maintenance and is very easy to install. ONLITE RESCLITE hc can be mounted directly on the ceiling or on TECTON trunking. Moreover, the wide spacings allowed between the luminaires make ONLINE RESCLITE hc a highly efficient solution.

zumtobel.com/resclite

18

TECTON PST
Sensor



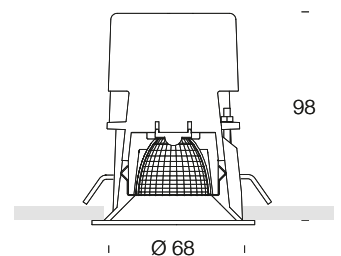
The new lighting system makes increasing demands on sensors as well. A challenge that Zumtobel's TECTON PST passive infrared presence detector high ceiling (hc) is able to master easily. Installed at a height of up to 16 metres, the sensor detects any presence. The ideal supplement to TECTON and GRAFT. Optimum flexibility of use is ensured by a choice of two models: one with a direct interface to the corridor function incorporated in the control gear, the other with a built-in DIMLITE Single lighting control system.

zumtobel.com/tecton



ZUMTOBEL

**Brilliance and
precision.**



DIAMO

Minimum size, brilliant lighting quality: the LED downlight has a diameter of only 68 mm and cannot fail to impress with its luminous flux of up to 1,250 lumens, glare-free light and with an optional colour temperature of 3,000 K – 4,000 K. Switchable and dimmable and providing a variety of beam patterns (30°, 40°, 55°), DIAMO performs a wealth of lighting tasks. Whether in hotels, shops or offices – DIAMO is the product of choice for powerful, high-precision accent lighting.



zumbel.com/diamo

Zumtobel. The Light.