

# LIGHTLIFE 3

**Dynamic light in architecture  
and design, with international projects in the  
fields of office and communication, hotel and  
wellness, health and care**

**Topic: Change**



Reinhardt Wurzer,  
Marketing Director Zumtobel, about the changing values of architecture  
and the resulting opportunities for the lighting industry



Reinhardt Wurzer at Kunsthaus Bregenz  
in front of Antony Gormley's Clearing V, 2009.  
(Photo: Markus Deutschmann)

# CREATING NEW VALUES TOGETHER

The times of unbridled growth are over. The economy is forced to focus on the essential issues and people have to come to terms with their accustomed pre-crunch habits suddenly being subjected to review. But the architectural world also seems to have undergone a cleansing process - mere appearances no longer suffice. The greater emphasis on content has endowed interior design and light, with a new status.

The entire lighting industry is in the process of undergoing a structural change, accelerated further by the financial crisis. We consider ourselves to be in a good position to face this process with confidence. The creative network, within which we are constantly exploring the limits of feasibility, is actively pushing ahead our joint developments - vital determinants of the future of lighting. We more than welcome the increased demand for high quality, fashion-independent design and technological perfection, so perfectly in line with our long-established code of practice. Rather than going for mass products, customers are now seeking individual lighting solutions that will be as appropriate tomorrow as they are today.

The intensive search for energy-efficient lighting solutions and the increasing desire to achieve a complete integration of light in architectural structures, will lead to the development of lighting products that look very different. Light will become a digitalised building component that can be used dynamically and interactively.

Zumtobel has focused on this development for quite some time. This is illustrated by the fact that new products, especially LED products, make up more than 80% of the lighting products that we develop for new projects. This fast innovation process is facilitated considerably by a major asset: well-established and good relations with our customer target groups in the fields of architecture, design, art and planning. Together with leading personalities in these areas, we continuously develop new lighting solutions, which are incorporated in projects as innovative applications using new light sources. The balance between energy efficiency and human factors such as ergonomics, comfort and safety is of vital importance in this process. The best products obtained from these development pipelines are quickly included as standard products. Distribution by our competent, world-wide marketing network then ensures that customers can benefit from our characteristically innovative edge.

We are very much aware of the fact that our special emphasis on close customer relations over the decades is of great value today. It is the basis of the mutual trust required to be able to offer attractive solutions for demanding technical and economic challenges, even in difficult times.

We hope that you will find some of the illustrations provided in this issue attractive and we look forward to helping you find the perfect solutions for your future projects.

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by Reinhardt Wurzer,  
Marketing Director Zumtobel

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**“You must be the change  
you wish to see in the world.”**

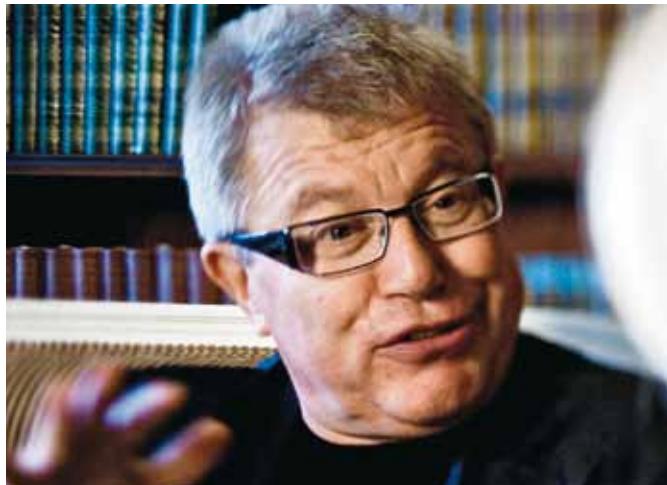
Mahatma Gandhi

Starry sky over Lake Maggiore – exposed for one hour, resulting in the apparent whirl of stars and clouds. The forest glows red because of a remnant of scattered light from the surrounding area.



# ARCHITECTURE AND CHANGE

## Interview with Daniel Libeskind



**A conflict of interest between a sustainable and an aesthetic consideration of architecture does not exist for Daniel Libeskind. On the contrary – he believes that really great architecture will always remain beautiful and true, and thereby sustainable.**

**On account of his unmistakable creations, Daniel Libeskind is considered to be one of the most extraordinary architects in the world. His work is characterised by narrative stylistic elements. Rooms are designed to exhibit different characters, proportions and materials, with the factor of light also playing an important role in his buildings. His major achievements, often in close association with the world of art and culture, include the Jewish Museum in Berlin, the Royal Ontario Museum in Toronto, the Denver Art Museum and the Imperial War Museum in Manchester. His original design for the new construction of the destroyed World Trade Center in New York (Freedom Towers) won the invitational competition. He is currently working with Zumtobel on a masterpiece that is intended to reflect the nature of light.**

### **What do you consider to be the most important changes in architecture in the last ten years?**

Daniel Libeskind: I believe that the most important change is that architecture has left its sphere and gone out into the world again. People have realised that architecture plays a central role in their lives. Call it what you like: sustainability or environmental awareness – I think that the realisation that architecture is a cultural as well as a technical phenomenon is a very important feature of the transition from 20th to 21st century. Architecture is part of a developing story to do with the past, with memories and with new ideas - a discipline like film-making, poetry and art in general.

### **Are there any rules of architecture that will always be valid?**

Daniel Libeskind: Architecture is like everything that survives - it is based on beauty and truth. These are really old categories that have endured over thousands of years - not only in the western world. I think that these categories will continue to be applicable, in spite of all of the changes, trends and technologies that may occur; I am convinced that architecture has to be considered as a big art in this sense. These terms are of course not easy to define in themselves - what is beautiful today, might not have been so two days ago. And yet we are talking about a standard that is absolute. I wouldn't devote my time to architecture if I thought it was only a temporary phenomenon.

**To what extent do you think does architecture influence society? Or is it social change that influences architecture?**

Daniel Libeskind: The two factors can be said to exert a mutual influence on each other. When you build a building in a city, or when you build a city, you change the way people behave, the way people see their own future, their hopes and dreams. On the other hand, social conditions somehow also dictate what is required and what is allowed. And that is the incredible dimension of architecture - the fact that it is highly political. With political I don't mean that architecture is controlled by the government. I mean the word in the Ancient Greek sense of *politeia* - it is there for the citizens and for all people, so that everyone has access to this art. It is not only an exclusive or elitist form of art. Architecture is actually the art of the general public, because it is subject to most public exposure. While writers or composers create their work of art in the refuge of their privacy, quietly hoping that it will receive public attention at some time in the future, architecture is always in the public eye - production, creation, erection, construction itself being a public act.

**What will be more important in the future - aesthetics or sustainability? Do you perceive a kind of contradiction in these two aspects?**

Daniel Libeskind: I don't see any conflict of interest between sustainability and aesthetics. I think that these matters are separated from each other far too much in current discussions of the issue, because a lot of people tend to just see sustainability as a technical aspect only. But I think that great, beautiful and true architecture is sustainable. What endures is not artificial, not false, not of the moment, but something created with a big spiritual resonance. I think that sustainability in architecture is achieved by it being significant and memorable - by structures that are well-built and lasting. In that sense, sustainability is far more than some clever tricks or ingenious technical gimmicks. Sure, these are important too. But in the end, it is the architecture itself that has to be so powerful that it stays in people's minds and lives, to ensure that it is looked after.

**And the technical part follows?**

Daniel Libeskind: The technical part has nothing to do with aesthetics, it covers a functional aspect. Architecture itself also fulfills functions. Beams and columns, for example, have aesthetic as well as technical qualities. The same goes for sustainability. It cannot be reinterpreted as a purely aesthetic criterion; this would only lead to mundane results.

**Some architects believe that there is a discrepancy between beautiful and, in a technical sense, sustainable architecture.**

Daniel Libeskind: If you look back in history, it's easy to see that great buildings, even Indian or Chinese villages, were built in accordance with the principle of sustainability, because their construction took into consideration architectural aspects: the orientation of the buildings, the materials used and their function in the course of the different seasons. Sustainability isn't new as such. If you look at antique buildings, really great architecture is already based on the principle of sustainability, because it wants to be a place for living. The fact that architecture turned away from this principle at some stage was the result of ideologies dating back to the Age of Enlightenment and wasn't really based on architectural principles.

**"I think that sustainability in architecture is achieved by it being significant and memorable – by structures that are well-built and lasting."**



Client: Dornier Stiftung für Luft- und Raumfahrt, Munich/D  
Architecture: Allmann Sattler Wappner Architekten, Munich/D  
Conceptual design of content and exhibition/Scenography: Atelier Brückner, Stuttgart/D  
Lighting design: Belzner Holmes, Heidelberg/D, Electrical design: Raible + Partner,  
Reutlingen/D, Light art: James Turrell, Design: Torsten Braun, Limburg/D  
Photos: Florian Holzherr, Dieter Mayr (p 12, bottom), Text: Sandra Hofmeister

# DORNIER MUSEUM IN FRIEDRICHSHAFEN

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## A STAGE FOR PIONEERS





“I would like the museum to be a meeting place for all those who want to learn from the past and who are devoted to the opportunities and tasks of the future”

Silvius Dornier



Radiant entrance: James Turrell's light art transforms the museum entrance to a fantastic stage. The acrylic glass façade reflects the coloured LED light programmed to display dynamic light scenarios and sequences.

The new Dornier Museum in Friedrichshafen brings the dream of flying closer to visitors: amazingly impressive rooms with resplendent light effects allowing a glimpse of the world of the pioneers of flight.

The Dornier Foundation could not have wished for a more suitable setting for the entrance to their new museum in Friedrichshafen than the light art created by the American artist and flight enthusiast James Turrell: coloured cones of light are supplemented by light lines - an impressive composition converting the museum entrance into a luminescent art installation. Individual light sequences of various intensities and colours alternate in a secret rhythm - an immaterial scenario that fascinates the beholder while at the same time setting the scene for a big dream: the dream of flying, weightless, free from the laws of gravity.

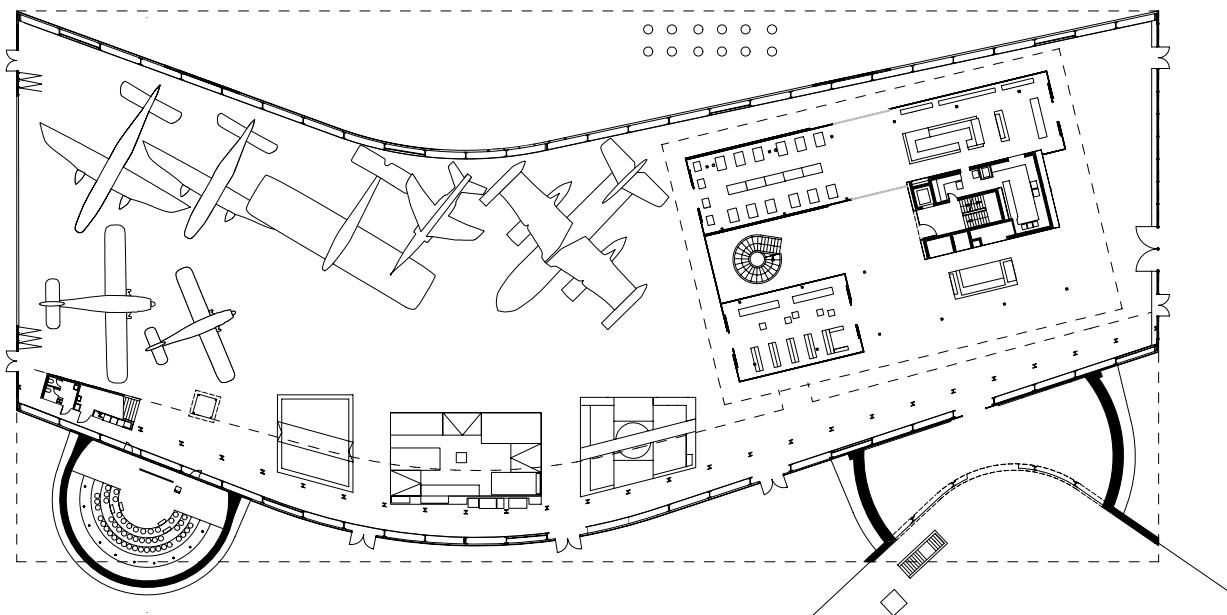
The LED technology used in the light art façade offers a huge and dynamic diversity of colour with a range of over four billion gradations of colour and brightness based on the three RGB colours and an additional white. Compact spotlights, light lines and floor light points illuminate the building, making the visitor seem to feel the very sense of lightness that young Claude Dornier must have dreamt of while constructing his early flying boats. The Dornier Museum presents the pioneering achievements of the legendary aircraft engineer in a time of change and dynamic development that becomes apparent in the light art façade and which stands for the entire history of aviation, from the very beginning to the conquest of outer space. "I would like the museum to be a meeting place for all those who want to learn from the past and who are devoted to the opportunities and tasks of the future", says Silvius Dornier, initiator of the museum and son of the famous engineer who died in 1969.

The linear new construction designed as a hangar by the Munich architects Allmann Sattler Wappner is situated adjacent to the edge of the runway of Friedrichshafen airport, allowing plenty of daylight to stream inside through the translucent outer skin. Visitors feel welcome in a bright foyer with spotlighted areas such as the ticket desks. Continuous row lighting and spots located under the suspended ceiling grid of the open room provide additional light, either added to the daylight as required or completely replacing it. With over 200 individually controllable light systems – from light façade to effect illumination of the historic air planes - more systems are made use of in the Dornier Museum than in any other architectural project in the world. The lighting atmospheres and sequences make a vital contribution to understanding the dream of flying, inviting the visitor to dream it a little too.





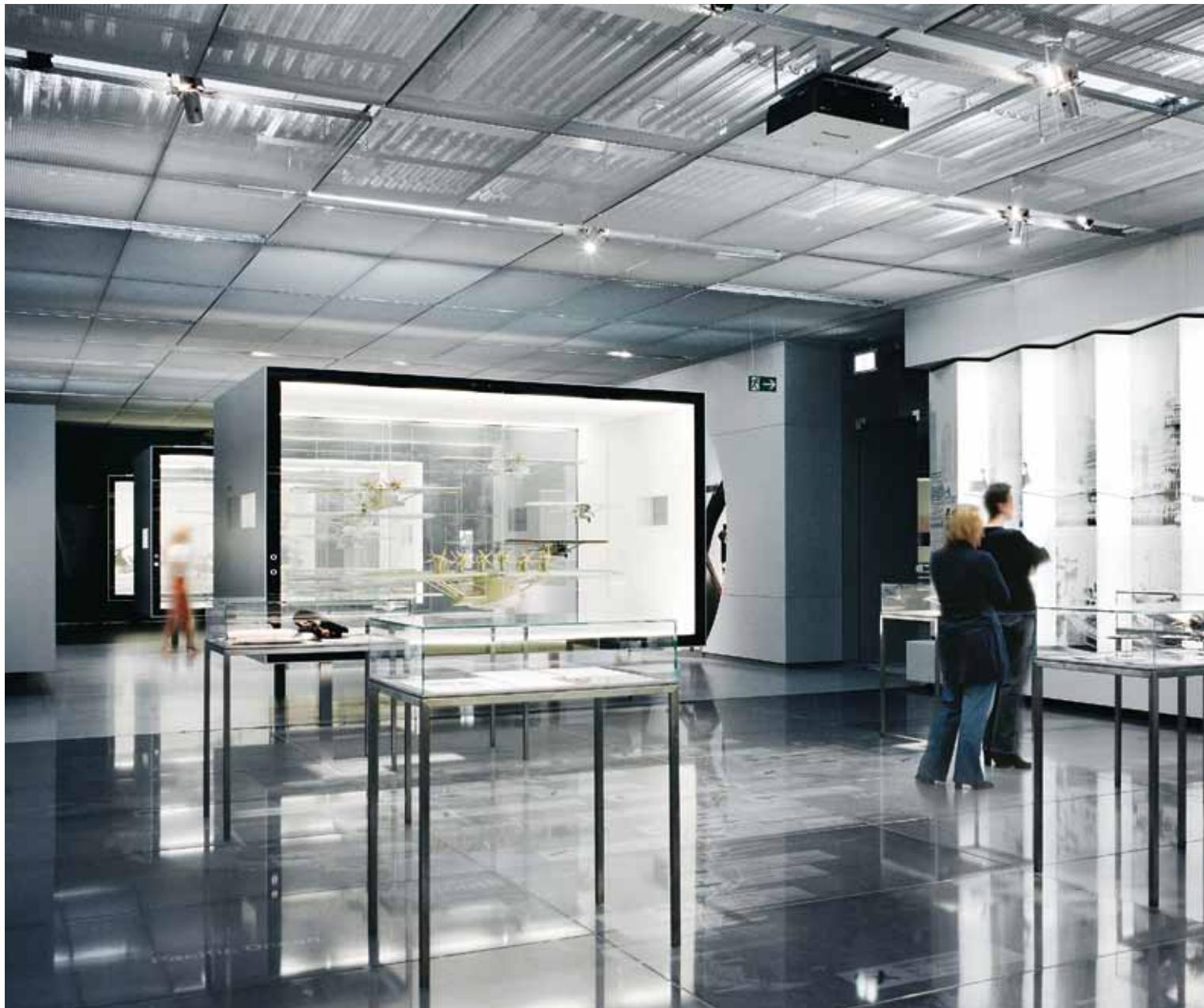
Continuous row lighting and spotlights provide additional on-demand artificial illumination of the historical flying boats in the bright hangar (top). Floor plan of the Dornier Museum, on a scale of 1:750 (bottom). The central ticket desk is illuminated effectively by suspended spots (left page).





Looking into the future: the gallery of the museum displays Dornier's outer space activities (top). The objects in the exhibition box on the first floor are presented in showcases and dioramas illuminated with very inconspicuous spots (bottom).

The American artist James Turrell with Prof. Dr. Markus Brüderlin, Director of Kunstmuseum Wolfsburg during the opening of the light art installation in Friedrichshafen (right page).



The journey through aviation history on an area of 5 000 m<sup>2</sup> is packed with surprises. Dynamic light sequences supplement the exhibition architecture created by Atelier Brückner, providing entertaining scenarios in which even dry technical developments are experienced on an emotional basis. The scene is set in the central Hall of Fame on the ground floor, with large portraits of early visionaries of flight including Leonardo da Vinci and the brothers Wright. An alternation of warm and cold light emitted from the continuous row lighting system under the suspended ceiling grid simulates a cloudy atmosphere - a real sky atmosphere, as it were. The museum box on the first floor is positioned in the hangar as a free floating cube. Individual room sections are divided by large glass showcases, designed as dioramas. Model airplanes, drawings and other historical exhibits are illuminated with continuous row luminaires and targeted LED spots that hardly develop any heat and which have small and inconspicuous structures. The light in the dioramas goes out at the press of a button and the glass compartment is transformed into a screen displaying moving pictures from the days of the pioneers. The lighting design by Belzner Holmes does completely without windows, structuring the exhibition rooms of the museum box in differentiated lighter and darker zones, providing a pleasant variation while walking around and highlighting various exhibits.

The visitor leaves the museum box through a dark space flight room suggesting a view of the solar system, then entering the bright gallery of the hangar through the space lab module. The central exhibit of the museum is located underneath - a large hall with historic planes including many rarities such as the DO 31, the first vertical take-off aircraft. "Men like my grandfather had a vision and pursued that vision", said Cornelius Dornier, project manager of the museum and grandson of Claude Dornier. A walk around the museum proves that the visions of the legendary aircraft engineer are a worthwhile experience up to this day.



#### Lighting Solution

Outside area: Space Cannon façade spotlights, type: Olympus RGB+W,  
MAYA RGB surface-mounted LED downlights

Entrance area and projecting roof transillumination: HILIO RGB+W

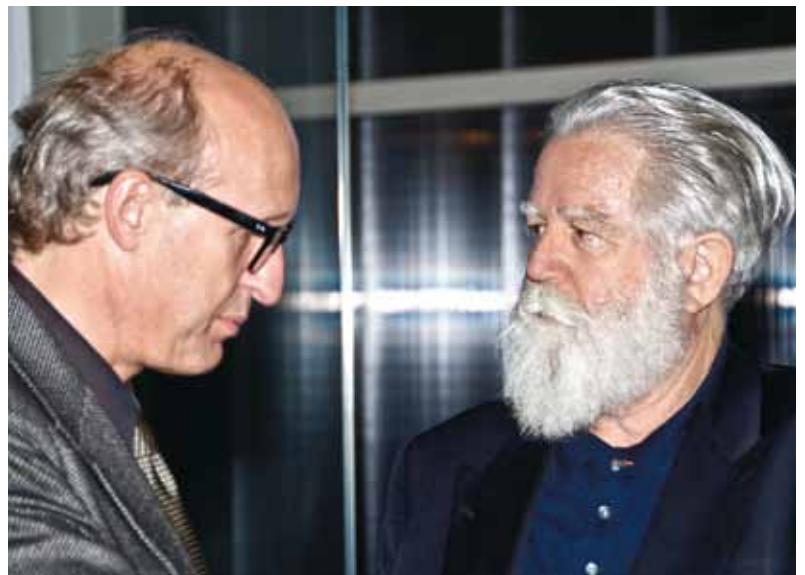
Basic hangar illumination: SLOTLIGHT light lines, Simes FOCUS spotlights

Effect hangar illumination: Robe Scanner

Reception, food and drink area, shop: VIVO spotlights, TECTON continuous row lighting system

Exhibition box: TECTON continuous row luminaires, VIVO spotlights

Illumination of exhibits in showcases: VITRALE Spot I and Zumtobel continuous row luminaires MLL; ZE



## RADIANT TREASURE HOUSE

Museum of Islamic Art – Brilliant Architecture and Lighting

An artificially reclaimed island about 60 metres from Doha's seaside promenade underlines the extraordinary status of the unique Museum of Islamic Art. The almost windowless construction composed of a number of different cubes is visible from far and wide, with its luminescent chamois limestone façade silhouetted against an azure-blue sea. The rather reserved and self-contained exterior surprises the visitor with an amazing openness inside: "If you want people to come and stay, then you must create space for them and exciting pathways through these spaces", comments world-renowned architect Ieoh Ming Pei on his unique museum concept. A perfect illumination of the treasures of Islamic art in the generously designed halls and galleries is achieved with a customised Starflex spotlight solution, developed by the lighting designers in conjunction



with Zumtobel. Almost 2,000 spotlights, discrete in design, but focussed in lighting effect, put the Islamic artefacts in just the right light.

Architecture: Ieoh Ming Pei, New York/US  
Interior design: Wilmotte Associes SA, Paris/F  
Lighting design: Isometrix, London/UK  
Lighting solution: Customised Starflex solution:  
100 W QT 12, Spotlights for tracks, 100 W QT 12  
spotlights with innovative swivel system  
(Photo: Museum of Islamic Art, Doha)



## VISION OF THE FUTURE: NEW SAGIA HEAD OFFICE

Saudi Arabia's First Artificial City

The new head office of the Saudi Arabian General Investment Authority (SAGIA) excels with a forward-looking design and the latest technologies. Clear architectural forms are complemented by exclusive materials and homogeneous light lines. The interplay of all the components gives the building a timeless, almost futuristic character. The administration building is a signpost to Saudi Arabia's major project, currently in the first stage of construction in the north of Jeddah and managed by SAGIA: the King Abdullah Economic City, an artificial city designed for two million inhabitants in the middle of the desert. Plans include a harbour, a new industrial area, extensive residential areas, as well as a number of skyscrapers. With a total of six such cities, Saudi Arabia's aim for the future is to become one of the most competitive countries in the world. More such city projects are being planned by Saudi Arabia in the country's endeavour to develop into an economically attractive investment location.



Client: SAGIA, Riyadh/SA  
Architect: Hosam Alabdulkarim Architectural & Engineering Consultants, Jeddah/SA  
Lighting design: Riad Saraiji, Al Ain/AE  
Zumtobel partner: Arabian Sounds & Lights Co., Jeddah/SA  
Lighting solution: Tetris cove lighting, Panos Q – square downlights, Slotlight surface-mounted luminaires, 2Light mini downlights, Cardan-Spirit ceiling-mounted luminaires, Cielos – modular lighting system  
(Photo: SAGIA)



## GREEN OFFICE IN BUDAPEST

Mobile Phone Operator Sets Standards in Technical Building Services

The new office building of the mobile phone company Pannon GSM is not only one of the most modern offices in Budapest, it also offers the facilities for a work style that is relatively unknown in Hungary. About 1,500 employees are based in the new office. The employees, who often work outside the office as well, return to open-plan offices with a friendly and modern work atmosphere - very much in line with the principles of the Norwegian parent company, Telenor. Mobility and cooperation is encouraged by a shared desk system. This flexible workplace selection means that the employees

working in the office at the time can use the free workplaces. Individually controllable standing luminaires with presence detection sensors make it possible to adjust the workplace conditions as required, even permitting a change in the position of the desks if need be. There are 50 meeting rooms in total, each equipped with projection facilities. This makes it possible for over 400 persons to take part in meetings or conferences at the same time.

Client: Pannon GSM, Budapest/HU  
Architecture: Gábor Zoboki / Zoboki, Demeter és Társaik Építész Iroda, Budapest/HU  
Lighting design: Gábor Kun / Hungaroproject Kft, Budapest/HU  
Lighting solution: 700 LightFields with Sense Control standing luminaires  
(Photos: János Philip)



## LAPIS LAZULI AND WHITE MARBLE

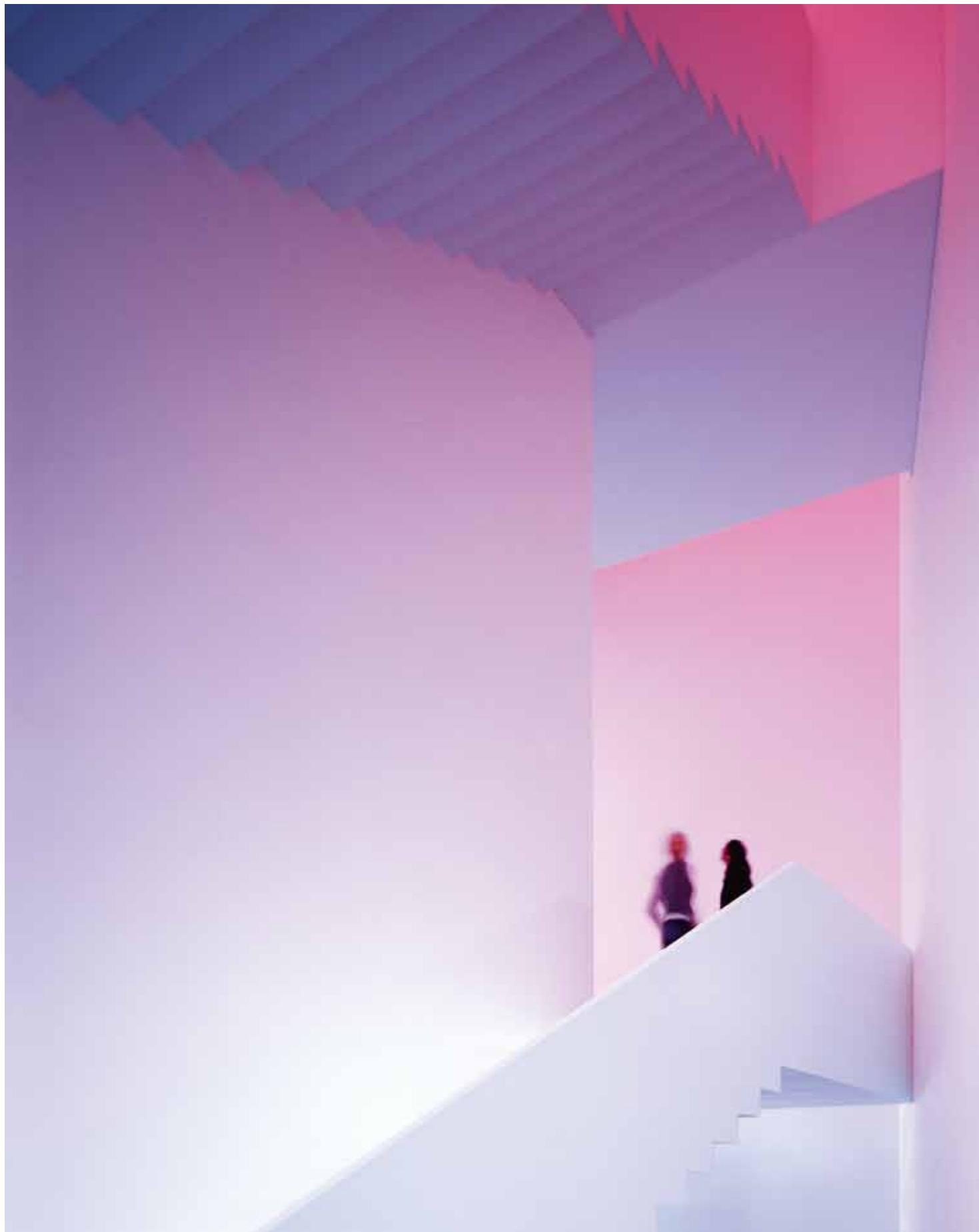
New Foyer for Louis Dreyfus Group Building

The secret behind the renovated entrance hall of the blue building at 87 Avenue de la Grande Armée in Paris is a minimalist design and use of exclusive materials. The simple elegance of the room is underlined by a shiny lapis lazuli floor. At the same time, the colour of the stone is reminiscent of the blue of the original glass façade. A pleasing contrast is achieved by the walls and columns faced with Thassos marble. The bright white and the finely veined marble harmonises wonderfully with the deep blue of the lapis lazuli.

The unique impression is crowned by a uniform ceiling of 200 m<sup>2</sup>: fluorescent lamps in two different colours illuminate the foyer homogeneously, imparting it with an air of floating lightness. A lighting management system ensures perfect lighting conditions at all times, with pre-programmed lighting atmospheres adapted to the natural course of daylight.

Architecture: Agence Grenot, Paris/F  
Interior design: Bernard Grenot, Paris/F  
Electrical planning: SDEL GTIE, Paris/F  
Lighting solution: Cielos, Active Light, Luxmate Professional  
(Photo: Hervé Abbadie)





The reconstruction of the Light Forum in Dornbirn developed together with the architect Aysil Sari received several awards. The fascination of light in all its facets can be experienced here (Photo: Günter Laznia).

# **GLOBAL REGIONAL**

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**Back in the 1980s, Zumtobel was the first company in the lighting industry to develop application-oriented presentation of luminaires in cubes, a particularly impressive way of presenting light effects. On the basis of this concept, the first Light Forum came to exist in Vienna in 1996. This signaled the company's progress from lighting manufacturer to professional lighting solution specialist, a position that has been progressively strengthened since then. In line with the vision to communicate this driving passion for light, Light Forums and Light Centres are settings for experiencing light, illustrating the entire range of design effects that this versatile building component is capable of. The basic idea is to work with renowned architects in an effort to create places that take into account the local conditions, while also emphasising the corporate fulfilment of a central requirement. The Light Forum in Vienna is evidently a Hans Hollein design, while the architects Sauerbruch-Hutton were responsible for designing the Light Centre in Berlin, and the architects Bolles + Wilson designed the Light Forum in Lemgo.**

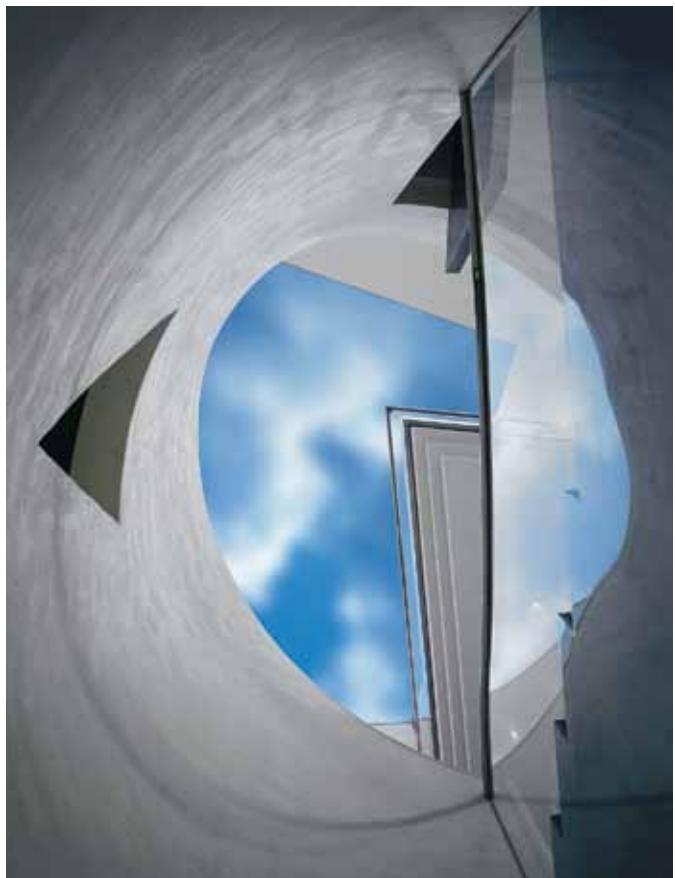
Zumtobel's three Light Forums and fifteen Light Centres all over the world offer an opportunity for familiarisation that goes far beyond a presentation of products. The light communication sites also serve to foster and develop customer relations by staging top architectural events. Whether people meet in the Light Centres in order to work or simply to explore, the centres are intended to demonstrate the Zumtobel philosophy of light to customers and to employees: first comes the application, then the product.

Herbert Resch talking to the Zumtobel Managing Director Benelux Jeff Slaets and the Marketing Director Jan de Stoops (top, photo: Toon Grobet). The newly converted Light Centre in Zurich/CH (bottom, Photo: Günter Laznia).



**Herbert Resch, Director Marketing Communication Zumtobel, has played a very active role in the development and optimisation of the Light Forums and Light Centres right from the start. The fact that reconstruction of the Light Forum at the company head office in Dornbirn, Austria, received a number of awards is for instance attributable to the creative networker, together with the gifted architect Aysil Sari.**

One of the central ideas of the Light Forums and Light Centres is to cooperate with renowned architects to create places that also take into account local conditions. The Light Forum in Vienna for instance, bears the signature of Hans Hollein (Photo: Pez Hejduk).



**How was the concept of application-oriented product presentation developed?**

Herbert Resch: To create an environment for experiencing light - that is what we want to do. Showing customers the latest innovations and technologies in real applications and letting them feel the fascination of light, is more authentic and convincing than trying to convey this message on a virtual basis. The emotionality and dimensions of light, particularly of the new LED technologies, can be experienced intensively in this way. We certainly aim to fascinate with our light solutions, but that is not where we stop: we want the Light Centres themselves to be architectural masterpieces - serving as inspiration for both customers and employees. The architecture involved is not an end in itself, but part of our corporate architecture. Our cubic presentation can for instance also be found in other activities that we are involved in - such as trade fairs, highlight shows and other customer-specific events.

**How have the Light Centres changed over the last years? How fast can technical innovations be passed on to customers there?**

Herbert Resch: The Light Centres are changing constantly as they grow and evolve with us. We started off with white cubes for example, now we have moved on to using colour and creating a new kind of materiality, making the original idea more contemporary. Another change is the trend to reduce the physical presence of lighting structures more and more. In future, spaces will mainly contain light rather than the structures creating it. A huge scope of design options presents itself with the new LED technology in conjunction with modern light management systems. This also requires new design elements to make the light effects visible. We want to demonstrate the scope gained by architects and light designers with these luminaires and control systems, which requires continuous adaptation and reconsideration. Just like in our projects, we are prepared to explore the limits of possibility, in order to set new standards. The modular structure of our Light Centres is ideal for achieving this.

**The Light Forums and Light Centres are used for exhibition, training and experimentation. Does that mean that you are creating locations for advancement of good design and technical competence?**

Herbert Resch: Experimentation with light is a primary issue for us. Both our customers and our employees love it. Together with our networks consisting of architects and lighting designers, we develop exciting custom-made luminaire and project solutions, which we test in our light communication locations, discussing them with our partners and developing them further. This means that these locations are dynamic and subject to a constant process of renewal. Another important aspect is the exchange of ideas beyond any specific borders. Through some modification and further development, a custom-made luminaire can for instance often become a series-produced luminaire.

An additional perspective of our networking activities are the subject-specific exhibitions that we organise together with renowned architects such as Stefan Behnisch, David Chipperfield, Daniel Libeskind or Delugan Meissl. These top events take place in the Light Forums and Light Centres all over the world. We believe that encounters of a superior quality are facilitated here - the exchange with our partners reaches a completely new dimension.



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**"The open and inspiring atmosphere of our light communication locations helps to strengthen the experimental character of our work, thereby creating a basis for future developments."**



## **"The continuity of change is vital for maintaining the attractiveness of our Light Centres."**

Herbert Resch has influenced the development and design of the Light Centres and Light Forums significantly (top, in the Light Centre in Puurs, photo: Toon Grobet). Inside and outside views of the Light Centre in Milan. LED solutions are mainly presented in the newly designed centres (bottom, Photo: Santi Caleca).



### **Development of public communication centres also means more personal contact with the customer. Who are the visitors and for whom are the centres intended?**

Herbert Resch: Our Light Forums and Light Centres are intended for our entire customer spectrum from investor, architect, lighting designer to electrical planner and installer. About 20,000 customers visit these places every year. We also offer target group specific events, like seminars on particular application areas or special installation workshops. The Light Centres are open places that are also intended as meeting places for our employees working in different departments. In this way, we want to emphasise that our activities focus on customer satisfaction: the common objective shared by the entire Zumtobel team. Every area of work is therefore placed in immediate relation to the customer, which makes it more focussed.

### **Development of high quality innovative products is one aspect. How important is the direct exchange with architects, designers and installers?**

Herbert Resch: A direct and constant exchange with our customers is extremely valuable for us, resulting in new ideas for product adaptations or solutions. The open and inspiring atmosphere of our light communication locations helps to strengthen the experimental character of our work, thereby creating a basis for future developments. We practise this with all of our partners and on different levels. While lighting design effects will be of chief concern to the architect, the electrician installing our products will on the other hand provide feedback about product handling and assembly.

### **Will the current economic situation have any influence on further development and investment in Light Forums and Light Centres?**

Herbert Resch: The continuity of change is vital for maintaining the attractiveness of our Light Centres. This is why we are not intending to allow difficult times to hamper this progress of development. On the contrary, in times like these it is particularly important to let our customers and employees know that we are continuing to pursue our targets as always and that we really live our passion for light. The Light Centres in Milan and Zurich were redesigned in spring and the Light Forum in Vienna was completely rebuilt in July. A new Light Centre has just been opened in Puurs, Belgium. The enthusiasm of our staff to guide our customers through this newly created environment is truly impressive and confirms our strategy.

As illustrated for the Light Centre in Puurs/B here, individual luminaires are presented in cubes dealing with various topics. The exclusive use of white in the cube design to start with, has given way to more colourful presentations.

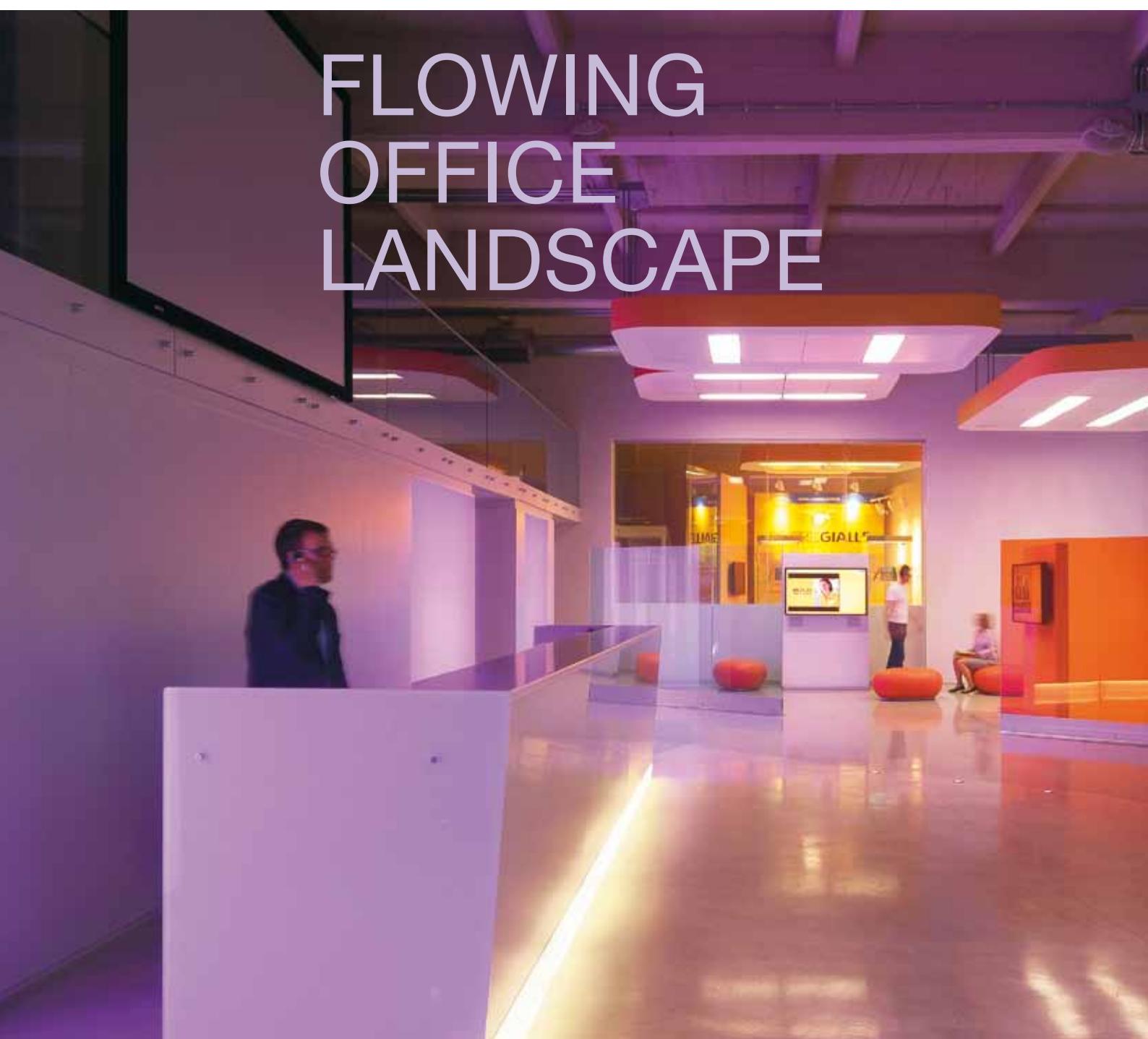


Client: Seat Pagine Gialle, Turin/I  
Architecture and interior design: Studio Iosa Ghini, Bologna/I  
Executive architects: ALFA Architettura, Arluno/I  
Electrical planning: Flu.Project Studio Associato, Perugia/I  
Photos: Jürgen Eheim, Text: Norman Kietzmann

# SEAT PAGINE GIALLE OFFICES IN TURIN

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## FLOWING OFFICE LANDSCAPE



Flowing rooms and soft curves turn the offices of Italy's Yellow Pages (Pagine Gialle) into a futuristic interior, achieved by a dynamic interaction of architecture and light.

The vocabulary of the futuristic architectural design is picked up by the curved ceiling elements with geometric light fields – an unusually colourful atmosphere for a day's work at the office.



The corridor meanders gently along the offices and meeting rooms. The indirectly illuminated suspended ceiling picks up the movement in the design and becomes a spatial line of orientation.



The feeling that something other than suggested by the exterior may be inside already springs to mind at the entrance of the new head office of Seat Pagine Gialle: the glass portal with its rounded, futuristic projecting roof juts into the pavement like a spaceship. The transparent area is a buffer zone between the historic façade of the industrial monument and the modern office world inside - a place for history and the present to merge. The organically shaped ceiling panels in the foyer create an unusual atmosphere that has little to do with conventional office scenarios. "Functional working rooms that also meet the need to feel comfortable" - that's how Massimo Iosa-Ghini sums up his design objective for the interior construction work. The Bolognese architect obviously enjoyed fitting the functional rooms of the former railway factory with an unusually light and informal interior.

It was in fact mainly light that the 1,200 employees of the former state-owned enterprise yearned for before the move. The offices in the centre of Turin resembled dark and claustrophobic administrative closets before - the new premises have joined them up into flowing spaces in shimmering colours, the radiance of which is underlined by a clever light management system. In his design, Iosa-Ghini managed to do completely without dark corners and secluded areas. Instead, he created a harmonious continuum of space, meandering through the storeys, its soft curves suggesting a wideness that cannot be comprehended fully at first. Continuous row lighting under suspended ceilings provides pleasant indirect light, emphasising the lines pursued in the corridors and itself turning into the radiant leitmotif of a both playful and futuristic office landscape. The darker zones of the widely branching corridor are illuminated by built-in light fields nestling almost imperceptibly in freely suspended ceiling panels, making the room adopt the glow of a bright celestial body.

Curves and bends are also found in the bent glass walls, separating individual offices on either side of the corridor, while at the same time allowing a lot of light and insight. In order to create some degree of privacy, Iosa-Ghini had the room-high glass panes printed with satellite images of historic Turin. The city and its history become a separating as well as a linking element in this manner, neither interrupting the architectural flow nor the flow of natural and artificial illumination. Walls painted in shades of yellow and orange, both part of the Seat CI, together with blue, determine the ambience of the workplace. The desks are illuminated with direct light from the simple, flat lamps of the pendant luminaires, while indirect light floods the ceiling. The lighting design emphasises the clear office colours as well as making it possible to work at the PC screen without shadow. In line with the company's way of thinking, the in-house restaurant goes far beyond any normal standard and looks more like a trendy place to be than an office cafeteria. No right angles here either. Vertical wooden panels with irregular contours structure the mainly white room, lending it a sensuous quality. Spotlights with an obviously sculptural design enhance this effect, while also making the atmosphere more relaxed. The Solar II spot-

light structures designed by Iosa-Ghini himself are expressive in form and soft in linear design. They match the futuristic interior of the corridors and the central auditorium. Designed for 100 persons, the lighting atmosphere in the meeting room can be changed from a neutral white to a coloured, almost lounge-like setting as required, suitable for all sorts of events such as conferences or presentations.

Up to now, Seat Pagine Gialle is the largest newcomer to Spina 3, the developing area in the north of the inner city of Turin. The rear of the historic building was extended by five additional building parts. A new and particularly bright episode of the multimedia company commences with Massimo Iosa-Ghini's playful interior design of the new Seat Pagine Gialle head office complex.

#### Lighting solution

Workplaces: VAERO with LUXMATE PROFESSIONAL lighting control system

Corridors: ZE special for indirect light, SOLAR II spotlights, LIGHT FIELDS surface-mounted luminaires

Break time areas: SLOTLIGHT I light lines

Restaurant and auditorium: Solar II spotlights

Manica building: Solar II spotlights and LIGHT FIELDS surface-mounted luminaires

The expressive design of the spotlights reflects the organic shapes in the auditorium (left page). Flat puristic lighting structures illuminate the workplaces in the offices (bottom).



A view of the horizon: located on the southern tip of the North Sea island of Sylt, the Hotel Budersand Golf & Spa presents itself with a design that is in harmony with nature and the typical impressive light atmospheres.



Client: Südern GmbH, Darmstadt/D  
Architecture: dko Architekten, Patrik Dierks, Berlin/D  
Interior design: Studio Jan Wickers, Hamburg/D  
Lighting design: Hamburg Design, Harry Mayer, Hamburg/D  
Photos: Andrea Flak, Jana Ebert (p 26-28), Text: Hildegard Wänger

# HOTEL BUDERSAND GOLF & SPA IN HÖRNUM

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## MOMENTS OF LIGHT

It's the light that makes this island so unforgettable: a clear glowing light with a gentle shine to it. And it's the sheer beauty of virtually untouched nature that presents itself in this southernmost tip of Sylt. The remarkable architecture of the recently opened 5-Star Superior Hotel Budersand Golf & Spa in Hörnum incorporates this breathtaking nature and unique atmosphere of light.



An extensive panorama terrace connects the hotel and the new golf course. Rooms and suites are grouped around four inner courtyards with greenery, which also provide additional daylight illumination of the foyer.

In the very south of the North Frisian island, where witches are said to have danced and the ghosts of some unfortunate shipwrecked souls supposedly wandered, is a large dune called Budersand Berg. Apart from the obvious influence on the name of the new Budersand Hotel Golf & Spa, the dune also seems to have served as a natural model for the building completed in May 2009. In the manner of a sand formation of a different kind, the ensemble composed of four houses gently nestles in landscape. With a range of different building heights, cuts and courtyards, there is no regularity to bore the eye. A generous panorama terrace links the also newly created golf course, while an impressive hotel foyer leads to restaurants, bars and banquet rooms as well as a spa area of over 1000 m<sup>2</sup>. Four inner courtyards with greenery allow additional daylight illumination of the reception area as well as creating vertical connections to the upper storeys. The 79 rooms and suites ranging from 21 to 65 m<sup>2</sup> are distributed over four individual two- or three-storey buildings joined by bridges, each offering a spectacular view of the sea, the dunes or the harbour. Lamellas of North American red cedar wood break up the façade structure serving as sun protection as well as balcony border. The wooden envelope of the building allows it to change its appearance in a chameleon-like manner: with an enchanting silvery gleam in the sunlight, picking up the pale blue hue of the water or the delicate gold of the dunes.

An awe-inspiring location and unspoilt nature: these are the chief factors that influenced the design by the architect Patrik Dierks at dko Architekten in Berlin. "The interaction of architecture and location is particularly important here", explains Dierks. "Rough landscape and luxury merging simply exquisitely - leaving the hotel guest with the feeling of having experienced something memorable and unique." What appears to be an extreme contradiction at first is united in the impressive composition of the Budersand Hotel. There is a fascinating interplay between clear shapes and structures and a constantly changing outside, visible through a huge number of panorama windows.

While nature is a vital component of the Budersand Hotel, it also represents the standard against which the hotel is measured. Jan Wickers, responsible for the interior design of the



Supreme luxury: The light-flooded hotel foyer opens up to the landscape beyond (top). Clear shapes and fine materials also characterise the atmosphere in the generous spa area with a fantastic view of the dunes (bottom).





hotel, took this idea of applying nature as a standard very seriously. Looking back on over 40 years of experience in interior design, he embraced nature as a source of ideas with open arms. Almost all the colours, materials and shapes used in the ensemble can be traced to the immediate surroundings, creating a harmonious link between building and nature. In line with this ethos, instead of finding their feet confronted with polished marble surfaces in the rooms, guests will delight in haptic oak floorboards stimulating the reflex zones. Free-standing bathtubs, wicker beds, translucent woven curtains, simple furniture made of wood and leather - 'interior design without any frills' is how Jan Wicher likes to describe his creations. The interior designer is fascinated by the sheer simplicity which he believes encourages guests to dream, free from unnecessary distractions. The furniture, lighting fixtures, fabric and materials all echo these natural attributes. Succulent green meadows, deep blue water, golden dunes and the light, always that light that one simply cannot get enough of.

Getting the extraordinary light effects from the outside to the inside was the task of the lighting designer Harry Mayer. The basis for a harmonious interplay of nature and spatial experience

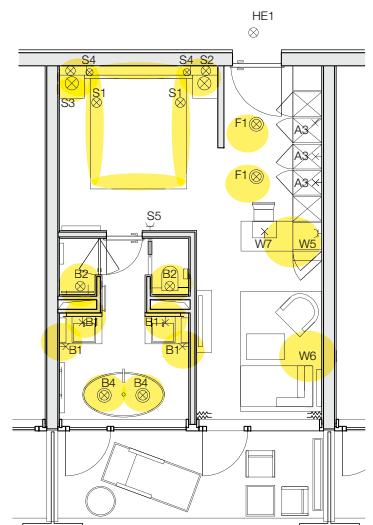


was already created by Jan Wickers' reduction to the essential. The lighting design now had to provide an appropriate and effective illumination of this setting. "It wasn't an easy task", Harry Mayer recalls, "guests don't want to refer to any user manuals or turn lamps on or off all the time after all. And yet, the lighting has to be perfect at all times and create the right atmosphere." In the public areas, the restaurant, the library and the spa area, this is achieved by light management system Litenet Flexis. Light sensors determine the required amount of light and control the connected lighting fixtures. The emergency light system Onlite CPS by Zumtobel is also integrated in this manner. Harry Mayer chose ZBOX as the solution for the rooms and suites. Perfect lighting is ensured by simple rectangular boxes called Circle Control Points positioned in specific locations such as near the writing desk, the bed and the washbasins. The guest just has to press a button with a particular symbol on it to create a preprogrammed lighting atmosphere. ZBOX then creates the perfect lighting conditions for putting on make-up, watching television, reading, having a bath or resting. Even the suitably soft lighting for a relaxing glass of red wine on the balcony is just the touch of a button away. Luxury means not having to worry about anything, not even the lighting.

#### Lighting Solution

Public areas: LITENET FLEXIS lighting management system,  
ONLITE CPS emergency light system  
Hotel rooms: ZBOX lighting control system

The right lighting for every mood: Circle Control Points placed in relevant locations in the rooms and suites ensure perfect illumination for every occasion. Guests can completely rely on the programmed lighting atmospheres for reading, putting on make-up or resting.



Client: Royal Northern College of Music, Manchester/UK  
Architecture: MBLA Architects + Urbanists, Manchester/UK  
Electrical design: Gifford and Partners, Manchester/UK  
Photos: Daniel Hopkinson, Text: Kerstin Schitthelm

# ROYAL NORTHERN COLLEGE OF MUSIC, MANCHESTER

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## DISPLAY WINDOWS FOR MUSIC



The acoustic buffer on the ground floor also serves as a showcase for the activities of the college (left). The cubist building has lots of windows strengthening the relation to the surrounding area (right page).

The striking new building of the Royal Northern College of Music in Manchester's city centre arouses interest. Cubes nested into each other, large-format and light-coloured stone tiles combined with lots of glass demonstrate monumental geometry seemingly in contrast with the lightness of the music dominating inside.

Light for educational establishments must meet very special requirements. Architecture and interior design are decisive factors that make it possible to respond flexibly to the most varied application options. Architecture and light, seeing and learning are closely connected in this respect. Glare-free daylight, pleasant colours, ergonomic furniture and flexible lighting solutions help to create rooms of experience that make students want to learn. It is in particular the meaningful combination of daylight and artificial lighting via intelligent control systems that enables custom solutions and at the same time the efficient use of resources. This concept has been brilliantly implemented in the RNCM annex building.





A priority for the rooms intended for practice and rehearsal was to provide glare-free light for reading music scores. On top of that, luminaires with parts that could reverberate from the sound of the instruments were out of the question. Light-fields recessed luminaires offered an ideal solution for these requirements (top and bottom).

The double-height rooms are flooded with daylight. If this is not enough, artificial lighting is added using a lighting management system (right page).



The Royal College is one of the most renowned music education facilities in Europe. The building situated on Oxford Road, which has been in need of an extension for a long time, is very limited in floor space. This was turned into a virtue on the ground floor where an acoustic buffer against traffic noise doubles up as a shop window for the college, allowing it to promote its activities as an international conservatoire and successful arts centre. Additional appeal is achieved by downlights with variable colours which turn the space into a glowing light box with spectacular colour changes, attracting the attention of passers-by. Inside, the lighting system is supplemented by a discreet, flush-mounted lighting channel system incorporating four different lighting inserts: spotlights, downlights, linear luminaires, wallwashers.

Large window surfaces and skylights in nearly all areas allow lots of daylight to enter the rooms, providing an ever-changing atmosphere. Only where the amount of natural light is not sufficient is artificial lighting added using a lighting management system. According to Craig Jackson of Gifford and Partners, who specified the lighting, finding the right fittings for an acoustically sensitive environment was a particular challenge. "The luminaires must be robust and without parts which could reverberate from the sound of the instruments," says Jackson. "A suspended solution in this area was out of the question as the sound would have made the lighting move. We also had to ensure a coordinated design with the coffered acoustic ceiling." More than 100 Lightfields recessed luminaires were specified for these spaces. Thanks to their special micro-pyramidal optic, they provide extremely uniform, glare-free light – essential for students in lengthy rehearsals who need to read music scores under high quality lighting conditions.

#### Lighting solution

CLARIS II pendant luminaires, PANOS downlights,  
LIGHTFIELDS recessed luminaires, 2LIGHT downlights, LIGHTTOOLS lighting system,  
Luxmate Emotion lighting management system



# **Light years ahead**

## **Chronobiology and paradigmatic change in architecture – A comment**

### **by Colin Fournier**

Photo: Peter Ginter/Science Faction/Corbis

Migratory birds continually check the position and height of the sun above the horizon as navigation cues for their long-distance flights. We too depend for our survival on our ability to experience key geophysical phenomena and, in particular, to have regular exposure to the cycles of light.

Our species evolved in the natural environment, getting substantial amounts of light during the day and true darkness at night. When we became sedentary, buildings gradually developed as obstacles between us and the generous light conditions offered by nature, confining us to relatively dark spaces. Findings in the field of chronobiology demonstrate that synchronising our biological clocks through exposure to fairly high levels of illumination is essential for our physiological and psychological well-being, suggesting that a significant future step in the evolution of architecture may well stem from the discoveries of this rapidly growing scientific discipline: it appears, in substance, that our contemporary urban environment is one where we are insufficiently exposed to light and that this may be detrimental to our health.

The major paradigmatic shift of the 21st Century lies in our growing respect for the natural environment, leading to a realignment of our social behaviour so as to respond more sensitively to nature. The chronology of light changes is fundamental: our buildings, exposed with infallible accuracy to an eternal sequence of day and night skies, must no longer estrange us from these natural rhythms that are also an essential part of our own physiological make-up.

Buildings could be designed as finely tuned photo-sensors. Light could be channelled to hit different parts of a building, and even specific pieces of furniture, precisely at the time when they are most likely to be used. If, for example, apertures are designed so that the surface of a dining table is exactly framed by sunlight at noon on the summer solstice, one can intuitively tell not only the time of day but also the time of year from the shift of the solar footprint in relation to the geometry of the tabletop. The sun can accompany us in

the course of our daily activities, not dictating the precise chronology of our actions but interacting with them and offering us valuable “zeitgebers”, just as it guides migratory birds. This adjustment of architecture to natural light fluctuations will require that buildings become much more intelligent and responsive than they are now.

The second major change is that artificial lighting, in terms of the design of both light sources and control systems, will approximate more closely the subtle variations in light intensity, colour temperature, orientation, etc...that are offered by natural light sources, seamlessly compensating, where and when necessary, for deficiencies in light intensity and quality. The art of artificial lighting is now evolving rapidly in this direction, searching for a cultural change as well as a technological one.

Interaction with nature always leads man to raise the Promethean question: could we also, in some respect, do better than nature or at least do something else? Indeed, we are under no obligation to be tied at all times to a faithful simulation of what we have observed in nature: once a lighting system has been perfected, once buildings have become not only responsive sundials but also sophisticated artificial lighting devices, then they can be used freely as instruments capable of playing different tunes, no longer exclusively synchronised to natural phenomena and rhythms: one could decide at any time and in any place to experience an aurora borealis, a tropical sunrise, a stormy winter evening, a cold starry night... and this freedom to experiment with different space-time conditions may be as beneficial to our well-being as the ability to synchronise perfectly with nature.

John Cage was fond of saying that “Art is an imitation of nature in her mode of operation”, usually predictable, providing us with the regular time cues we need, but suddenly surprising us with those wild and unpredictable fluctuations we subconsciously desire.

Colin Fournier, born 1944, Anglo-French, Architect and Urbanist.  
1964–69 Studied architecture and planning at the AA Architectural Association, London  
1965–67 Worked with Buckminster Fuller  
1971–76 Associate member of Archigram Architects, London.  
1976–84 Planning Director, R.M.Parsons company, Pasadena, California  
1984–87 Partnership with Bernard Tschumi. Design of the Parc de la Villette, Paris  
1994–2004 Founding partner of Spacelad Cook/Fournier. Co-author of the Graz Kunsthaus.  
2004–09 Private practice as Colin Fournier Architects, London.  
Professor of Architecture and Urbanism at UCL, University College London.



Study participants receiving light therapy as treatment for depression. Artificial daylight can help people to overcome depression, jet lag and hormonal disorders. Taken in a rehabilitation clinic in the Black Forest.



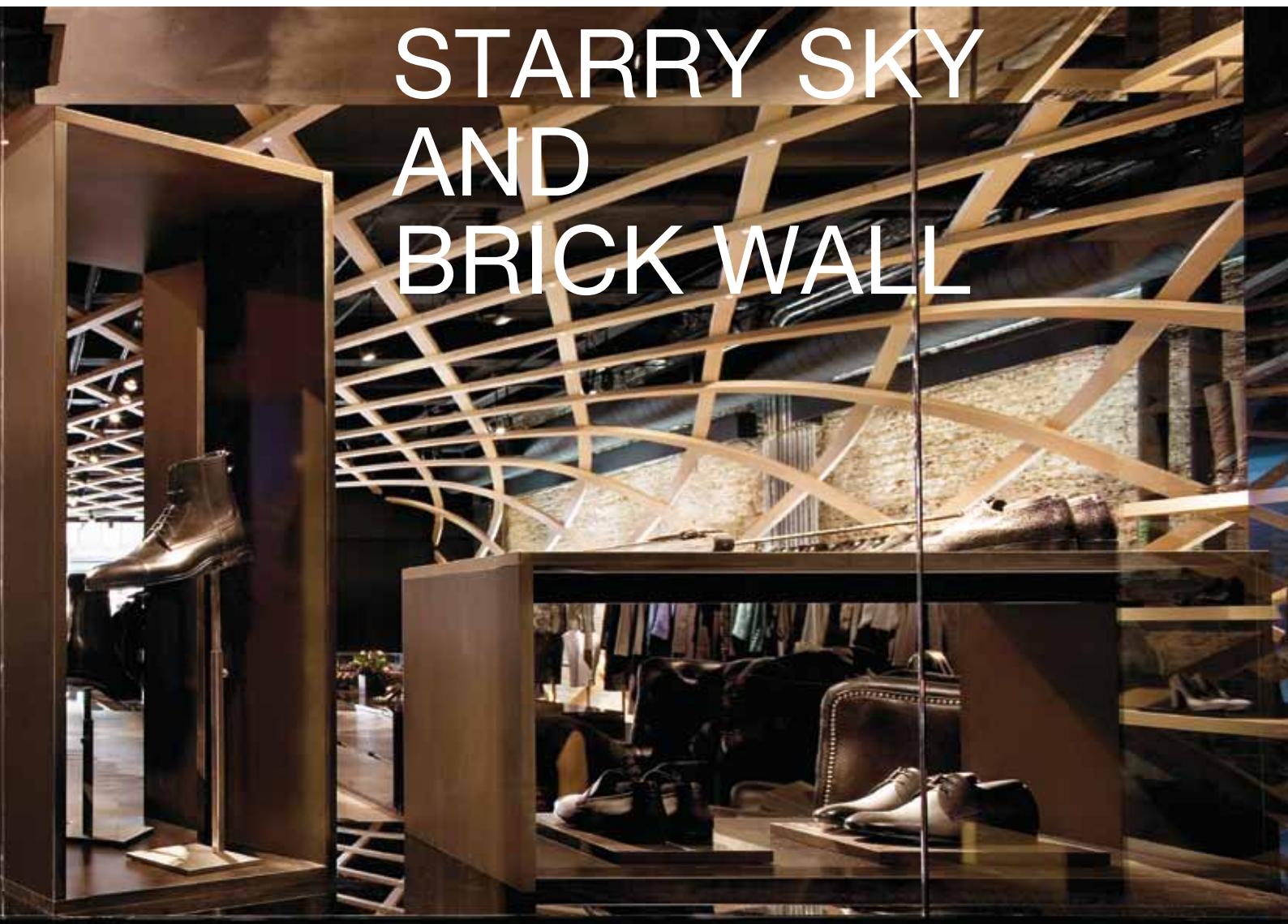
In the light of fashion: islands of light create a superb setting for the high quality fashion collections. The programmed lighting atmospheres turn the shop area into a theatre stage.



Client: HUGO BOSS, New York/US  
Architect: Matteo Thun, Milan/I  
Lighting design: AJ Weissbard, New York /US  
Photos: Paul Warchol, Text: Markus Frenzl

# HUGO BOSS FLAGSHIPSTORE, NEW YORK/ USA

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STARRY SKY  
AND  
BRICK WALL

The HUGO BOSS Store opened at the end of 2008 in New York is the first location presenting all of the collections of the company together in one place. An ingenious lighting system puts the coarse features of the store architecture in a luxurious light. It also allows flexible adaptation of the store lighting to the seasons of the year or to different moods.

While a store designed for the Meatpacking District in New York has to necessarily appeal to the taste of a cosmopolitan clientèle, it should also incorporate just the right balance between elegance and original roughness. Special atmospheres offering a characteristic setting for individual brands have to be created without sacrificing the rough charm of the former grocery store and the flat warehouses that make up the special flair of this popular part of the city. The Italian architect Matteo Thun devoted a lot of attention to the lighting concept to achieve this special balance in the new HUGO BOSS Flagship Store, opting for "an LED lighting system that turns the place into a theatre stage". The lighting emphasises building elements left in their original condition or accentuates items of the collection as bright points in an overall fairly dark atmosphere. It reacts to the seasons of the year, creates moods or turns the whole interior into a kind of shop window relating to the outside world. Thun only added what was absolutely necessary to the existing building to create an optimal platform for the clothes. An oak grid structure spans over the different collections like a unifying roof, creating a dome-like inner room on two-thirds of the area. Just a few elements introduced to the existing building substance have turned the market hall into a showroom. The American lighting designer AJ Weissbard created diverse scenarios, which can be called up by the push of a button, to adapt the atmosphere to new collections, to a change in the outside lighting conditions or to a variety of other uses. A backlighting of the superstructure prevents it from being perceived as a border between goods presentation and wall, turning it instead into a sculptural structure in the room. Hidden spotlights illuminate the goods and emphasise the superb quality of the fashion products. Indirect illumination of a golden ceiling in the changing room area creates an altogether brighter and warmer setting, ideal for an assessment and appreciation of the clothes tried on. Depending on the scenario chosen, wallwashers are used to illuminate the brick wall of the store to different degrees. Alternatively drenched in warm or cold white light, a lighting atmosphere can be created that does not correspond to the actual time of the year, but to the season referred to by the presented collection.

#### Lighting Solution

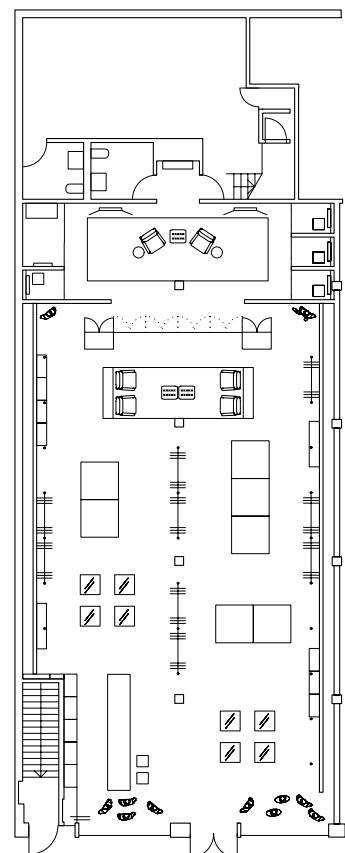
VIVO spotlights 35 Watt HIT, special LED solution with LED wallwashers and LED continuous row luminaires (colour temperature adjustable in white range), LED light spots in RGB colours, DMX lighting control system with touch panel controls as well as internet accessible controls, developed specifically for HUGO BOSS.





Reality of animation? Dynamic lighting solutions can be visualised realistically with the lighting design software Vivaldi. This was used to represent the various lighting scenes of the Hugo Boss project on the computer, making communication between everyone involved in the project much easier (left page).

LED light spots at the intersections of the wooden grid structure call to mind a starry sky (top). Coloured spots turn the flagship store into a sparkling stage that does not deny its vegetable market history. Floor plan on a scale of 1:300 (right).



Client: Municipality of Maldegem/B  
Architecture: AIKO architecten & ingenieurs, Maldegem/B  
Photos: Toon Grobet, Text: Kerstin Schitthelm

# NURSING HOME IN MALDEGEM

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## LIGHT MAKES ACTIVE



The statistical evidence is unambiguous: people are getting older and need more care during old age. The political and social challenge lies in providing an appropriate environment for the old that also meets the requirements of senior citizens in need of care.

The idea that the circadian rhythm of older people in particular, can be stabilised by adequately high quantities of light has been supported scientifically in a recent study conducted by Zumtobel. A more regular waking/sleeping rhythm results in an improvement in the quality of life. Since the time spent outdoors by older people and especially those in need of care is very limited, it makes sense to bring the light to them. A firm of architects, AIKO in Maldegem/ Belgium, has created an impressively attractive home for the elderly as well as for older people in need of nursing, which offers a special extra: plenty of light.

"People feel better and more satisfied in buildings with a good architectural design. This applies to everyone, including the residents, employees and visitors", says Eric Verstraete, the AIKO architect responsible for the overall design, including the technical building services. Three complementary, connected sub-projects were created on the total area of 10,000 m<sup>2</sup>. Centrepiece is a light-flooded new building, the two wings of which are connected by a generously-sized restaurant in the middle. This area of lively communication is a place for residents to eat, for employees to meet during their coffee breaks and for visitors to have a chat. Although this appears to be a rather unusual set-up for a nursing home at first, it clearly shows how positive the effect of unconventional design can be on the resulting atmosphere and sense of well-being. Downlights provide a very even lighting effect that can be supplemented and changed at any time with spotlights. This makes it possible to also use the high room for theatre performances or for film shows.



A hospital atmosphere was something that the designers were determined to avoid. Instead, the colourful entrance area to the nursing wing is inviting and fresh (left page). Slotlight light lines emphasise the pathways in the corridors (bottom).





The light-flooded restaurant is at the heart of the complex. It is a communicative meeting place for residents, employees and visitors (top).

There are two wings on either side of the restaurant. The right one is the nursing wing, while the left one contains apartments for residents who are still able to look after themselves (floor plan on a scale of 1:1 500).

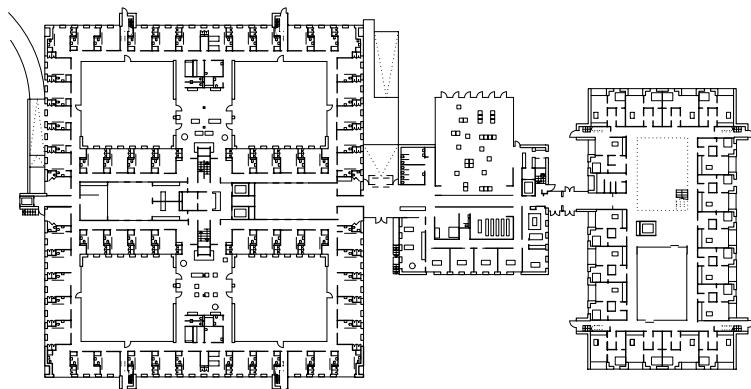
Two square buildings, clad with the dark bricks typical for the region, with two storeys each, are accessible to the left and right of the cafeteria. The buildings are adapted to meet the special needs of the residents. The right part of the building contains 124 rooms for persons in need of care. The reception area is inviting and fresh. This is where a positive Belgian feature - two percent of the building sum of publicly sponsored projects has to be invested in art - clearly pays off. The ample daylight is only supplemented by round pendant luminaires and indirect wall lights when required.

"To make sure to avoid a hospital atmosphere" - this was an important objective of the designers. The typical hospital white can hardly be found anywhere. Instead of long corridors, there are paths that invite to take a walk in daylight conditions, possible thanks to the large inner courtyards. The walls echo the exterior dark brick cladding. Slotlight light lines emphasise the various pathways, while entrances to rooms are accentuated by small LED downlights.

Particular nursing groups are identified by individual colours, which are also found on the wall lamps, making orientation easier. Each section is built around an inner courtyard, ensuring an awareness of the time of year and, most importantly, plenty of daylight. Floor-length windows in the rooms and common rooms allow even the less mobile residents to live with nature, to some extent at least. Natural daylight can be supplemented as required by artificial light from suspended direct/indirect lighting fixtures. Apartments for residents who can look after themselves independently are located in the left wing. Help and support from the neighbouring nursing area can naturally be requested at any time. The secret behind this unusually open and progressive building complex is surely also the high level of trust and cooperation of all the project partners, simply described by Verstraete by the statement: "A good team is bound to achieve a good result."

#### Lighting solution

PANOS surface-mounted downlights, COPA pendant luminaires, SLOTLIGHT light lines, CLARIS pendant luminaires, KAREA wall lights





The residential and nursing areas are arranged around inner courtyards. The floor-length windows allow plenty of daylight to enter the rooms, which can be supplemented as required by artificial light from suspended direct-indirect lighting fixtures (top).

In Belgium, two percent of the building sum has to be invested in art. The entrance hall in Maldegem is decorated with the 'DNS of Life', a work of art by Ulrike Bolenz (bottom).



## ST. KATHARINA STUDY: LIGHT AND QUALITY OF LIFE

Does the sense of well-being and social activity of older people increase with a higher and dynamically controlled light input? This question was investigated in a study conducted by Zumtobel in cooperation with the Competence in Light Centre and other partners over a period of 15 months in the dementia section of the St. Katharina Nursing Home in Vienna. The results of the study were presented in mid-June during a closing event held in Vienna.

The main objective of the study was to find out which factors - the intensity of illumination and/or spectral composition of light as well as its dynamic course - have a positive influence. The study showed that large quantities of light can have a positive effect on the circadian rhythm of older people, especially those in need of care, who have no regular access to natural daylight.

The study involved observation, documentation and assessment of the behaviour of the residents, particularly with regard to communication and interaction with each other and the nursing staff.



A current study proves that light can positively influence the circadian rhythm of older people.  
(Photos: Zumtobel)

The following results were obtained:

- Communication of residents with the nursing staff was more intensive, especially during the afternoon.
  - An increase in communication was observed for all three lighting situations.
  - The residents participated more frequently - particularly in the case of the biologically effective lighting conditions - in domestic activities such as baking cakes, preparing food and similar.
  - Social activities such as handicraft work, singing etc. were attended more frequently in lighting situations with higher illumination intensities.
- These results are to be investigated in more detail in further studies.

[www.zumtobel.com/healthcare](http://www.zumtobel.com/healthcare)

## STEFAN BEHNISCH: VERSATILE ASPECTS OF CONTENT MOTIVATED ARCHITECTURE

The German architect Stefan Behnisch opened his exhibition 'Versatile aspects of content motivated architecture' in the Light Centre in New York with a fascinating lecture early this May. Detailed drawings and information allow an insight into existing and current projects and show the extent to which the projects incorporate the sustainability factor. Behnisch, also known as a 'green architect', presents various innovative projects, both in the planning phase as well as completed projects, including the Brooklyn Arts Towers in New York, the Harvard Allston Science Complex in Boston and the Norddeutsche Landesbank in Hannover. In his truly inspiring opening speech, Stefan Behnisch described the potential contribution that the design and technology of a building, including the lighting, can make towards creating a sustainable object.

Anyone can design a sustainable building according to Behnisch. The issue that should be focussed on is designing a sustainable building that is both comfortable and attractive to live in. From 29 October, the exhibition is on show at the Light Centre in Rome, from 26 November in Stockholm and from 19 January in Zurich.



At the opening event of his exhibition, the renowned architect Stefan Behnisch presented his current projects with relation to the subject of sustainability.  
(Photos: Zumtobel)



## ABOUT ZUMTOBEL MASTERPIECES

Masterpieces: the best give their best for Zumtobel. Selected architects, designers and artists, like Zaha Hadid, Hani Rashid or William Sawaya let their 'light ideas' become reality, by creating luminous works of art - exclusive and inimitable. A new work of light art, called Starbrick, has been designed by the Danish artist Olafur Eliasson. Various constellations of the fascinating masterpiece were presented to the public for the very first time at the Euroluce in an evening event in the Sawaya & Moroni showroom. Olafur Eliasson positioned different qualities and colour shades of LED light in a series of light experiments conducted in cooperation with Zumtobel. This led to the development of the star-shaped modules that can be combined at random. The new Starbrick and other Zumtobel masterpieces were displayed to visitors of the Sawaya & Moroni showroom throughout the exhibition. Starbrick will be available from an exclusive online shop and selected galleries as of this autumn.

All of the four Zumtobel masterpieces were also presented at the Abitare il Tempo in Verona in September, at the exclusively designed Sawaya & Moroni stand. A total of 720 exhibitors from 23 countries presented exclusive design - from traditional to avantgarde, from classical to modern - to international visitors of the exhibition on an area of 100,000 m<sup>2</sup> divided into 10 exhibition halls.



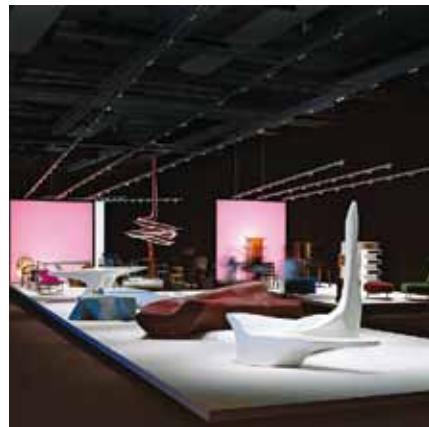
Various sizes of Blur, created by William Sawaya, were presented in the Sawaya & Moroni showroom (top). Impressive Starbrick installation by Olafur Eliasson at the Euroluce in the Sawaya & Moroni showroom – an experiment with light modulation and space (right). (Photos: Zumtobel)

The Art Basel Miami Beach, attracting art lovers from all over the world on 3–6 December this year, will display Starbrick as the centre piece of the Zumtobel presentation in the Art Collectors Lounge.

The next major Starbrick installation will start on 21 November 2009 in the 21<sup>st</sup> Century Museum of Contemporary Art in Kanazawa. Almost 400 Starbricks will be shown in an individual modulation by Olafur Eliasson as part of the artist's own large exhibition entitled 'Your chance encounter'.

[www.starbrick.info](http://www.starbrick.info)  
[www.artbaselmiamicbeach.com](http://www.artbaselmiamicbeach.com)  
[www.kanazawa21.jp](http://www.kanazawa21.jp)

The Abitare il Tempo in Verona is one of the most exclusive interior design exhibitions in Europe. All four Zumtobel masterpieces were displayed there.



**JAMES TURRELL.  
THE WOLFSBURG PROJECT**

**24 OCTOBER 2009 – 5 APRIL 2010**

The Wolfsburg Project is a monumental light installation by the famous light artist James Turrell. The unique work of art installed in the Wolfsburg Art Museum was first presented to the public on 24 October. The Wolfsburg *Ganzfeld Piece* - as this type of work has been named - is the largest museum installation by the American artist. The installation on an area of 700 m<sup>2</sup> is 12 m high and consists of two interconnecting rooms - the *Viewing Space* and the *Sensing Space* - which are both completely empty and flooded with slowly changing coloured light. Zumtobel provided the LED lights and projectors for the exhibition.

Light dreams of this kind have technical requirements for which solutions have only recently become available. Such installations are impossible without LED technology and a highly sophisticated control technology. Space Cannon used over 30,000 LEDs in the *Ganzfeld Piece*. More than 65,000 different levels of brightness and millions of colour variations

can be achieved, in any desired time sequence, from an imperceptibly slow change to a flash. The lighting technology used here is the absolute latest state-of-the-art.

Since the opening date, visitors can enter these rooms offering a unique sensory experience in an amazingly homogeneous field of vision. Although the light presents only itself, with no reference to anything beyond it, the interplay of surfaces, colours and space leaves the visitor immersed in an atmosphere of pure sensory perception, in the middle of a mysterious, painterly world of light. The artist calls this experience 'feeling with the eyes'.

A central work by James Turrell - born in Los Angeles in 1943 and one of the world's most important contemporary artists - is Roden Crater, an extinct volcano in the Arizona desert that he has been transforming into an artistic observatory since 1974. There is an association between The Wolfsburg Project in the Art Museum and the cosmic 'light observatory'. Roden Crater opens up skywards, while the infinite innerspace of The Wolfsburg Project represents a reversal of the

same idea. The latest lighting technology is used and the artist takes advantage of the facilities of the building, which are unique in the German museum landscape, for this complicated installation. The Wolfsburg Project with its *Ganzfeld Piece*, as well as additional installations and documentations, is the American artist's largest exhibition in Germany so far.

The installation can be experienced in Wolfsburg until 5 April 2010. Many exhibition accompanying events are being organised by the Art Museum - including architectural discussions.

[www.kunstmuseum-wolfsburg.de](http://www.kunstmuseum-wolfsburg.de)

The Wolfsburg Project, a monumental lighting installation by the famous American lighting artist James Turrell, will be on display at the Wolfsburg Art Museum until April 2010 (Photo: Wolfsburg Art Museum).



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Schweizer Straße 30  
6851 Dornbirn/A  
Telephone +43 5572 390-0  
info@zumtobel.com  
www.zumtobel.com

Responsible for contents  
Herbert Resch

Project management  
Kerstin Schitthelm  
lightlife@zumtobel.com

Editorial and publishing company  
Institut für internationale  
Architektur-Dokumentation  
GmbH & Co. KG  
Hackerbrücke 6  
80335 Munich/D

Translations  
Dr. Yasmin Gründing,  
Burglengenfeld/D

Design concept and layout  
Atelier Bernd Kuchenbeiser  
Munich/D

Coordination of photographs  
Markus Deutschmann

Production  
Lorenz Mayer-Kaupp

Lithography  
Fitz Feingrafik

Printing  
EBERL Print GmbH, Immenstadt

Cover photograph  
Lichtzentrum Wien/A  
Pez Hejduk

Photo cover 1 and p 3  
Myrzik und Jarisch,  
Munich/D

## Project Team

Dornier Museum, Friedrichshafen/D  
Frank Rottländer  
Zumtobel Licht GmbH  
Frank.rottländer@zumtobel.com

SEAT Pagine Gialle, Turin/I  
Davide D'Ambrogio  
Zumtobel Illuminazione Srl  
Davide.dambrogio@zumtobel.com

Hotel Budersand, Hörnum/D  
Project management: Kirsten Reichel,  
Responsible systems engineer:  
Jürgen Martens  
Zumtobel Licht GmbH  
Kirsten.reichel@zumtobel.com

Royal Northern College of Music,  
Manchester/UK  
Philip Welsh  
Zumtobel Lighting Ltd.  
Philip.welsh@zumtobel.com

Hugo Boss, New York/USA  
Cornel Hess  
Zumtobel Lighting, Dornbirn  
Cornel.hess@zumtobel.com

Senior citizens and nursing home,  
Maldegem/B  
Linda Knockaert  
N.V. Zumtobel Lighting S.A.  
Linda.knockaert@zumtobel.com



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suggestions or requests:  
lightlife@zumtobel.com

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