Corporate Architecture
The Lufthansa Aviation Center at Frankfurt Airport is a convincing example of how companies can communicate through their buildings. Corporate buildings convey brand content, impress visitors and motivate employees. They are part of the corporate culture.
Corporate Identity is a term, which has become firmly anchored in our daily language over the years. An increasing number of thematic areas and forms of expression by companies and organisations are being examined in light of corporate image requirements. As such, it is no surprise that CI is starting to be broken down into a number of sub-themes. Today, one now often speaks of Corporate Design, Corporate Behaviour, Corporate Architecture or Corporate Light. As you have probably already guessed, this lighting report focuses on the various examples of constructed Corporate Architecture and, naturally, also takes a look at Corporate Light. Thus, right at the beginning, you’ll find the Lufthansa Aviation Center, Lufthansa’s new administration building at Frankfurt Airport. Still noticeably influenced by Otl Aicher, Lufthansa’s CI already has a long tradition, which is given a modern interpretation by the architect, Christoph Ingenhoven in the new building.

Next we come to Brunner – without such a long tradition of CI, but with a very promising future. In building his new Communication Centre, Marc Brunner (30), who has been the official Managing Director for the last three years has, together with Schneider + Schumacher, given a clue to his vision and the direction his company will be taking in the future. That Corporate Architecture is more than just playing with shapes, but in fact can contribute to the self-image of a company, its employees and its clients, is demonstrated in our background report “Corporate Architecture – a factor for success” by Prof. Jan R. Krause. Q110 is the abbreviation for “Quartier 110”, the address of one of Deutsche Bank’s branches on Friedrichstrasse in Berlin. That this is no ordinary counter hall in an ordinary bank is apparent as soon as the client walks in. The bank contains not only the usual range of forms, but is also a place for communication between bank and client. In today’s online banking age, this is surely an important step in restoring the personal touch to customer relations. The breadth of potential company-specific forms of expression with regard to architecture and light are manifold and depending on brand, highly distinctive. As chains, they play their part in making our constructed environment look the same everywhere and yet they still remain a tool for differentiation. Perhaps too close, one might say, that it is precisely why these two poles help to make the area of Corporate Architecture so exciting.
Zurich
In February 2007, an extension to the Rietberg Museum for non-European art opened its doors. From outside, one sees only the entrance pavilion in the shape of an emerald green glass cube. The new exhibition space, with an area of 2,600m², is entirely underground. Luminous ceilings provide diffuse overhead lighting while the art treasures from Asia, Africa and Oceania are set in scene by Parscan spotlights for low voltage halogen lamps.

Rietberg Museum
Architect: ARGE Alfred Graziosi and Adolf Knechelitz (Vienna/Berlin)
Lighting Design: d’liti Lichtdesign
Adolf Krischanitz (Vienna/Berlin)
Architect: ARGE Alfred Grazioli and Rietberg Museum

Barcelona
Tapas bars and restaurants in Catalan covered markets are always the ideal spot for an authentic meal made with the freshest of ingredients. "Cuines de Santa Catarina" reinterprets this tradition with contemporary style, matching Enric Miralles and Benedetta Tagliabue’s contemporary style, matching Enric Miralles and Benedetta Tagliabue’s reinterpretation of the tradition with canting grey tones, the shop window and interior of "Company Fashion" provide a distinctive neutral background for the constantly changing designer collections. All lighting from wallwashers to "focal glow".

Company Fashion Shop
Architect: Claire Bataille & Paul Vasilis
Company Fashion Shop
Antwerp
The newly built "Heide III" provides the Heide Museum of Modern Art in Melbourne Australia with additional attractive exhibition space. The "Albert and Barbara Tucker Gallery" is illuminated by overhead lighting as well as Pollux spotlights and Optec floodlights.

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Melbourne/Bulleen
The newly built "Heide III" provides the Heide Museum of Modern Art in Melbourne Australia with additional attractive exhibition space. The "Albert and Barbara Tucker Gallery" is illuminated by overhead lighting as well as Pollux spotlights and Optec floodlights.

Heide Museum of Modern Art
Architect: O'Connor + Houle, Melbourne
Lighting Design: Electrolight, Melbourne
www.heide.com.au

Cava de’ Tirreni (Salerno)
The Virno fashion house can also look back at a long corporate history. Since 1864 the family has been trading in high quality textiles. Set behind classical arcades, the renovated sales area of the mother house, carefully lit with new installed Parscan spotlights, conveys this sense of tradition with natural elegance.

Boutique Virno
www.virno.it
Bright prospects

Jetty, Hjo (Sweden)
www.hjo.se
Lufthansa Aviation Center

The German carrier’s new administration building at Frankfurt Airport combines high tech with low energy – an exemplary design from the firm of Ingenhoven Architekten.

According to a survey undertaken by the University of Munich in 2006, Lufthansa is Germany’s most respected company. The airline with the crane on its logo is valued by passengers from all over the world; recognition stemming from its “typically German” characteristics such as efficiency, reliability and modernity and also for the elegantly technical corporate identity in grey, yellow and dark blue. The influence of Otto Aicher, who developed Lufthansa’s visual image, can still be felt, but even this German cult brand cannot remain unaffected by global events. The terrorist attacks of 11 September 2001 and the continuing debate on climate change exposed questions, which the aviation industry has yet to answer.

Against this backdrop, the Lufthansa Frankfurt Airport design by Ingenhoven Architekten, which won 1st prize in an international competition for a new administration building, had to undergo close examination which, thanks to the far sightedness and strategic intelligence of the architects, passed with flying colours. This is demonstrated by the fact that the quality of the competition entry is largely evident in the building, which took only 4 years to complete, (2002-2006) this despite a halt to its construction in 2001. “It creates both a communicative, healthy and interesting working atmosphere and at the same time, it is an important symbol for the company”, says Ingenhoven.

Overall, the building initially appears to be a relatively simple, of cuboid structure and a respectable size. One can only guess at the complex internal workings behind the filigree glass facades. The structure of the vaulted roof-shells too, which spread across the building like the ribs of a paraglider, also only hint at the internal organisation. Ten office wings are placed like the teeth of a comb along a central axis; a transparent covered atria between these wings forms an effective noise and climate buffer.

The building reaches a limit of what is technologically possible with the aim of saving resources. For example, thanks to the controlled natural ventilation above the atria, the thermally active concrete ceilings and the very latest in control technology, the office complex is classified as a “Low Energy Building”, requiring two-thirds less energy than a conventional building of a similar size.

The glass office building has space for 1,800 employees, yet still appears elegant and weightless, thanks to the use of the most modern materials and structures such as the slender pillars made of high-strength concrete. The modular construction style allows the building to be extended to accommodate up to 4,500 employees, if required.

Using technology with intelligence, the architects pursued the goal of combining optimum working conditions with the highest degree of resource conservation. The logical consequence was a construction which is an important symbol for a modern airline like Lufthansa.

The living principle of natural ventilation above the atria. Fresh air is conveyed underground to the atria and offices. The staff can open or close the windows to the atrium manually. Ventilation is via the interfaces of the roof-shells.

The diagram illustrates the principle of natural ventilation above the atria. Fresh air is conveyed underground to the atria and offices. The staff can open or close the windows to the atrium manually. Ventilation is via the interfaces of the roof-shells.

The passage runs through the building for a length of 175m, broken down – like a street in a small town – into small town. Furnishings such as seating groups and meeting points enhance communications.

Each of the nine atria is designed as a garden with its own geographic theme: landscaping examples from all five continents demonstrate the company’s internationality and its range of flight destinations.

Ingenhoven Architekten

Christoph Ingenhoven set up the firm of Ingenhoven Architekten in 1985. His firm has won numerous first prizes in international competitions, as well as awards for completed projects reflecting their ecological and sustainable approach. His works include the head office of RWE AG in Essen, the Burda media park in Offenburg, the Audi Pavilion for the international motor shows 1999-2002, the Lufthansa Aviation Center in Frankfurt/Main and the high-rise “Uptown München”, as well as office buildings for Pekel & Cloppenburg in Chemnitz and Lübeck. Current work in progress includes high-rise projects in Sydney, Osaka and Singapore, the exhibition centre Neue Messe Hamburg, the European Investment Bank in Luxembourg and a large university site in Dublin. Most of the projects undertaken have been on the basis of international competition.

www.ingenhovenarchitekten.eu
As part of the overall low energy concept, the illumination of the Lufthansa Aviation Centre has also broken new ground. Measures taken to utilise natural daylight such as indoor anti-glare protection, outdoor solar protection and light-directing elements in the glazing, help to ensure that daylight entering via glass surfaces on the roofs and facades can be regulated on a largely automated basis.

In terms of artificial illumination, the concrete ceilings, as thermally active building components, posed a particular challenge for standard lighting technologies. A normal solution using downlights was automatically eliminated with common suspended ceilings not available. Instead, the architects and lighting designers, Tropp Lighting Design, together with ERCO developed an additional technical element, to integrate various functions via a central mounting and installation frame structure. Normally concealed behind a double ceiling, the light electro-acoustics, smoke alarms and noise insulation equipment are contained within this modular technology frame. A system used throughout the entire building, it’s a striking feature of the architecture and thanks to variable luminaire inserts, can be easily adapted to the given spatial conditions.

The modular technology frame system offers two mounting positions for downlights or directional luminaires. Control gear and elements such as loudspeakers or smoke alarms have space on a platform in the middle of the frame. Acoustic sails can be mounted on cantilevers. The technology behind the luminaire inserts is based on ERCO’s recessed luminaire programme and works with modern, energy-efficient metal halide lamps. In addition, Optec wallwashers have been mounted in singlets on the upper edges of the walls to brighten up the vaulted ceiling.

At night, the building turns into a radiant landmark: the filigree pillars, thin ceiling plates and minimised roof-shells dematerialise in the artificial light. Subtle differences in the colour temperature of the white light separate the garden atria from the office wings. The lighting designers further emphasised this separation by contrasting the overhang of the solid concrete roof-shells of the office wings with the glass roofs of the atria by giving the former a lighting accent. As the perfect tool for this effect, they used Tesis adjustable uplights for metal halide lamps: the angle of their narrowly focused beams may be adjusted by a few degrees, so that they can be precisely directed at the target area even over large distances. Thanks to this high-performance lighting technology, only a relatively small number of luminaires are required, which reduces not only energy consumption but also the outdoor installation costs.

Architects: Ingenhoven Architekten, Dusseldorf
Support Structure Planning and Special Statics: Werner Sobek Ingenieure GmbH, Stuttgart
Technical Building Equipment: HL-Technik AG Beratende Ingenieure, Munich
Brendel Ingenieure GmbH, Frankfurt/Main
Ebert Ingenieure, Frankfurt/Main
Facade Planning: DS-Plan GmbH, Stuttgart

Building Physics: DS-Plan GmbH, Stuttgart
Institut für Bauphysik Horst Grün GmbH, Mülheim/Ruhr
Lighting Design Artificial Light and Daylight: Tropp Lighting Design, Wolfsheim

Photos: Frieder Blickle, Hamburg
lac.lufthansa.com
Corporate Art

Selecting art for the company buildings highlights the corporate culture.

Assisted by Frankfurt curators Max Hollein, Nicolaus Schafhausen and Michael Neff, Lufthansa produced an art concept for the Aviation Center in which international representatives of art's younger generation, created location-specific works for the new building. The artists selected were Michael Beutler, Thomas Demand, Michael Elmgreen & Ingar Dragset, Liam Gillick, Carsten Nicolai, Beat Streuli and Cerith Wyn Evans, all engaging intelligently with the building's architecture and the company's business ethos.

As an example, let us take the work of Thomas Demand, since it was this particular piece that presented the greatest challenge in terms of illumination. Thomas Demand's wall painting at first glance, appears to be a detailed view of the leaves and branches of trees within a forest. Those familiar with Demand's work however, will already have guessed that this is not a real forest, but an extremely complicated model made from thousands of sheets of paper, constructed in a studio prior to being photographed. A paradoxical game that toys with the concepts of reality, image, artifice and nature; drawing analogies between the building's architecture and its attempts to minimise ecological consequences, with the intensive application of today's technology. A "flight to the front" – but is this the only answer? Writing in the FAZ newspaper, Michael Hierholzer praised the art concept, saying "Lufthansa deliberately chose haphazard artistic positions giving both staff and visitors something to think about.

In view of the prominent position afforded his artwork, Thomas Demand (picture, top left) set store by evenly distributed illumination, placing the monumental work in the best possible light.

With the help of ERCO system accessories such as sculpture lenses and wallwasher optical systems, lighting designer Clemens Tropp (right) has the lighting within the technical modules adjusted in such a way that the illumination of the painting precisely corresponds with the artist's wishes.

In view of the prominent position afforded his artwork, Thomas Demand (picture, top left) set store by evenly distributed illumination, placing the monumental work in the best possible light.

This is how Thomas Demand's installation looks in the finished building. It is located in the open cafeteria area between the 4th and 6th row of offices on the top level of the Aviation Center.

24 April 2006: artists, lighting designers and ERCO technicians met at the Aviation Center to "shed light on the installations". Our photographer, Frieder Blickle, recorded the work on his camera.
At first glance, the building is not spectacular. Disregarding its distinctive triangular floor plan, the design qualities become apparent only when one takes a second look. The Communication Centre is based on the shape of an equilateral triangle, the apex of which is aimed directly at the corner of the old building, projecting so closely that the edges of the eaves appear to touch. The message is clear, Brunner’s Communication Centre stands for the New, born out of the Old! A generation change at the top while at the same time, allowing continuity of the existing technical, creative and economic standard.

The Communication Centre was designed by the Frankfurt office of Schneider + Schumacher, to whom Marc Brunner awarded the contract after a period of long research. One reason for the award may have been that Schneider + Schumacher stand for practical, functional and formally restrained solutions, not boasting a definitive style of their own. The new building aims to correspond exactly with Brunner’s philosophy, which can be best described in similar terms, that of functionality and aesthetics being equal; new objects, chairs or tables are based on technical innovations. Examples of which can be seen in the construction method of the extremely light “Sleight Ultralight” conference table, the working of the wood in the Fina chair, or the round-knit, meshed back of the Taceo chair – a seat intended for social institutions such as old people’s homes. Brunner is Germany’s market leader in this fast growing sector espousing

Brunner GmbH’s Communication Centre presents itself entirely in keeping with its transparent open and practical purpose. The spacious entrance area leads directly into the heart of the two-story building, which houses open offices (management offices shown in picture) on the upper level and conference rooms on the lower level.

For three years, Marc Brunner has been the official Managing Director of the family company, working alongside his mother and father, who established the object furniture firm in 1977. Now 30 years old, the graduate economist initiated construction of the so-called Communication Centre, which houses not only urgently needed presentation space, but also conference and office space for management, marketing and sales.

The floor plan clearly shows how the new building ties in with the 1985 original structure, highlighting the characteristic roof design.

Architecture and Lighting Design: Schneider + Schumacher, Frankfurt
Electrical Planning: Raabe Planen und Beraten, Vallstedt
Site Management: Jörg Metzmeier, Baden-Baden
Photos: Thomas Pflaum, Castrop-Rauxel

www.brunner-stuehle.de

Brunner Communication Centre, Rheinau
Transparent, two-storeyed and with practical clean lines on a triangular floor plan, this new construction by the object furniture producer Brunner, achieves more surface area for presentation and offices in addition to becoming a symbol for the Company’s development.

Schneider + Schumacher
Till Schneider (left) and Michael Schumacher (right) established their Frankfurt-based company in 1988 and now have around 35 employees. The firm became known in 1995 through its legendary red Info-Box on Potsdamer Platz in Berlin. Other outstanding projects include the Westhafen Tower in Frankfurt (2003), the ERCO automated warehouse (2001) and the recently opened trade union building in Wolfsburg. Alongside industrial construction, Schneider + Schumacher Architekturgesellschaft mbH is also involved with the planning of residential buildings and social institutions such as the Child and Youth Centre in Munich-Riem (2003). Their designs stand for constructional clarity, flexible utilisation and a decisive stylistic vocabulary.

www.schneider-schumacher.de
a high level of quality. He does not however, produce pure office furniture preferring to leave this to other companies. As an alternative, Brunner is expanding into the airport sector with his innovative modular waiting area bench. The new Stuttgart Exhibition Centre has also ordered several thousand conference chairs from the Rheinau-based company.

Brunner’s production facility is directly beside the Communication Centre, the location seen as an expression of the company’s business commitment to Germany. Today, 40% of production is for export and the figure is rising. This expansion into international markets provides Brunner with growth independent of the domestic economic situation. Thus the decision to build the two-storey triangle, which also includes the company’s entrance area, was taken in 2003, when the furniture branch was in economic difficulty.

Today one approaches the company via a spacious square with the entrance cut into the north facade. From here, one comes to the generously sized, double-storey exhibition area, with its floor to ceiling display shelving. In principle, this hall may be used in any number of ways, its flexibility allowing for various presentations or occasions. On the same level is a café bar with fully equipped kitchen, a state of the art sanitary installation system, divisible conference rooms and presentation boxes in which client-specific furniture and materials can be shown. The upper level is reached via two steel staircases and here one finds the offices of management and those employees who make contact with the world outside. Apart from architects, Brunner’s end clients include commercial partners, companies or building contractors. Rather than being intimidating, the Communication Centre aims to generate positive emotions and signal openness.

The spatial experience is particularly impressive. The high hall with its multi-dovetailed wooden roof is unique to this style of design. The roof is constructed of 45 pre-fabricated and self-bearing wooden modules which were installed on site. The weight of the rhomboid and pyramid-shaped modules is borne by slender steel supports in which the ventilation pipes are also integrated. The triangular motif also appears in a number of different places. In the cross-profile of the glass facades, the presentation shelving and even in the shape of the Trion uplights, which are clustered around the steel supports like a wreath.

Armin Scharf

Ambient luminescence: Trion ceiling washlights with metal halide lamps. Focal illumination: Optec spotlights with low-voltage halogen lamps. Light aesthetics: Suspended luminaries are both brilliant and decorative. Vertical illumination: Optec wallwashers. Using various tools from the ERCO program, the lighting concept for the Communication Centre covers all three lighting types as defined by Richard Kelly and also takes into account vertical illuminance, which is so important for visual perception.

The conference rooms are also used for training and are fitted with the latest presentation technology. Light is provided by economical CL downlights for compact fluorescent lamps, variable Optec spotlights and wallwashers on 3-circuit tracks.

The well-appointed café bar offers a relaxing and refreshing area for employees and clients alike. The presentation boxes are used to show client-specific furniture and materials. Here, halogen light provides optimum colour rendition quality.
Today, many companies offer comparable products and services, therefore it is crucial that each has a distinctive profile, to differentiate itself from the competition. A credible identity can only be established if each corporate level accepts and applies it, whereby the company’s visual image, both from within and outwardly, is of fundamental importance. As a shaping and atmospheric element, lighting design for example plays a significant role in architectural appearance. However, corporate visibility measures are usually limited to letterheads, business cards and printed material. The architecture is often inadequately used as a tool for targeted communication. But it is precisely a consciously adequately used as a tool for targeted communication. But it is precisely a consciously used tool that makes such a decisive contribution to a company’s values to the public and have a stabilising effect. If however, it is banal and undistinguished, it will lastingly express and highlight the company’s lack of respect for the environment, culture, society and its employees.

According to studies, a disproportionate number of successful companies have architecturally appealing environments. Up to one quarter of a company’s economic success depends on how the company lives out its values. There is a clear correlation between appealing architecture and corporate success. Employees feel it can be reward enough simply to be allowed to work in an environment that is attractive.

Architects have familiar with Germany’s office landscapes and production sites, will know that this is by no means something to be taken for granted. This lack of respect for environment and employees, which is often subliminally expressed in the architecture, can have immediate and lasting results with regard to performance and motivation.

Essentially, corporate architecture is not a speciality. It only appears to be because most businessmen believe that functional, purpose-built buildings, be they for production or administration, do not require an attractive design. However, the architecture does indeed bring lasting added value, which cannot be achieved through advertising or other marketing measures. Well-designed corporate architecture is by no means the sign of an exaggerated masquerade: alongside functional and constructional quality it takes both the identity and user into account. Modern corporate architecture is not defined by architectural uniformity but by architectural quality. It is not a question of constructing showy effects, in fact quite the opposite, more a question of how accurately a company’s image is expressed in building terms.

Some companies quite early on recognised the interplay between architecture, corporate identity and business success. The artistic advisor Peter Behrens for example, made a legendary contribution to AEG’s visual appearance over a period of several years from 1907. His scope covered factories, workers’ houses and electrical plant, in addition to business furnishings and exhibition concepts. During the 1920s, Peter Behrens’ gatehouse for the Frankfurt chemical group Hoechst even became the company’s brand logo. With the Deutsche Werkbund (Association of German Crafts- men), which Behrens co-founded in 1907, he laid the first cornerstones of Corporate Identity – naturally not known by this name at the time.

A further Werkbund company, which recognised this important theme for itself, its employees and its clients, in Eternit AG. During the boom years of the post-war era, the company commissioned two leading architects for its own building projects. In Berlin, Paul Baumgarten erected several factory buildings on the site in Rudow, the Eternit House with showroom and staff accommodation in the Tiergarten area and Eternit’s own guesthouse in Grunewald. In Heidelberg, it was Ernst Neufert who designed the master plan for the factory site and erected all of the halls and the administrative building over a period of 10 years starting from 1954. As historic photographs show, the designs back then already allocated a major role to lighting – not only in the showroom and on the facade, but also in the offices and on the factory floor. To mark the company’s 75th anniversary in 2004, Eternit gave thought to these architectural qualities and commissioned the Berlin architect, Astrid Bornheim, to further develop Eternit’s buildings in their various locations. She gutted the administration building in Heidelberg, taking out the built-in fittings from the 1980s and restored the original Neufert structure. A very special spatial element, which was revealed during this work, was the filigree concrete ribbed ceiling, the delicate dimensions of which can hardly be imagined today. Using this rhythmic ceiling structure, the architect extrapolated major spatial interventions. Using the irregular grid of the facade, Bornheim played a melody, which ran counter to the existing rhythm. With the voluminous fibre-cement furniture, she created a baseline for the room. Using light, she once again accentuated the structural identity of the space by hanging filigree glass tubes between the fine ribs of the ceiling either introducing white fluorescent light into the room or dimmable halogen spotlights. The lighting mood created by architect Astrid Bornheim and the lighting designer Dirk Wortmeyer for showroom and conference room has become a fixed element of the company’s Corporate
Corporate culture and corporate architecture are not however, a question of size, money or a famous name but, primarily a question of attitude. Architecture is similar to a commercial product: quality obliges. Corporate architecture is not just simply built and done with. Corporate culture is a process which requires continual care and renewal and in today’s fast-paced times, both aspects expressed in this term, are once again in demand: entrepreneurialism embedded in a corporate ethic. It is to be recommended that every company should invest early in its own corporate culture, conveying the message to both employee and customer alike. In this way, lasting values are created which help bind employees and clients together, creating trust and both promoting and maintaining brand awareness over the longer term. The prerequisite for a credible corporate culture is authenticity. This understanding of corporate culture as a whole is successful when it penetrates all levels of a company, from management to sales and onto production becoming a real and truly lived corporate approach. This gives rise to the maxim that architecture should be created not as a fashionable marketing tool, but out of conviction and a sense of obligation. When this works, investments in corporate culture truly become investments in lasting corporate success.

Identity. It was subsequently transferred to other locations and also used at the company’s exhibition stand for the Eternit Academy. Instead of a company logo, only the company’s colours are to be seen: as back lit red and green glass.

Other current examples such as the BMW works in Leipzig designed by Zaha Hadid show that light is not only an identity-defining element in exhibition and sales areas. The lighting concept from the London firm for office and production illumination, Equation Lighting, represents identity and functionality. Open, cascade-like, staggered office spaces create communicative rooms. Conveyor systems which run freely through this room, transport vehicles in various stages of production helping to keep office and administrative staff in constant contact with the product. Light is the central medium giving the dynamic room structure and orientation. The modulation of lighting colours and in particular the illumination helps to break up the room. Given zones and construction elements are emphasised using higher illuminance, cooler light colours and the iconic monochromatic blue – BMW’s corporate success.

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Several thousand visitors per year attend seminars, take part in events or meet company experts at ERCO’s premises in Lüdenscheid. In view of this, the Technical Centre contains an auditorium with 70 seats for meetings, lectures and presentations. This multi-purpose room has now been fitted out with a new lighting system based on ERCO’s lighting control system Light System DALI. It demonstrates the astonishing scenographic capabilities of DALI technology and proves the system should not be wholly considered in terms of office illumination and fluorescent lamps. Looking at the figures, nine networked Light Servers 64+ control 160 Clients or DALI-compatible ERCO lighting tools, giving a total of approximately 375 DALI addresses. So far, 25 light scenes have been programmed and can be called up with a Light Changer via a multi-media system.

**Tune the light: ERCO Auditorium**

The Light System DALI as a tool for scenographic light. A newly designed auditorium at the ERCO head office in Lüdenscheid demonstrates exactly what is possible.

Using varychrome Quadra wallwashers, the side walls are illuminated with a high level of uniformity in a range of colours selected by the user. Colour mixing luminaires using LED technology create a high saturation and broad spectrum of colours, which are faithfully reproduced thanks to colour compensation.

The projection wall can be bathed in the intensive light of the entire colour spectrum by means of individually controlled varychrome Optec spotlights. Several Parscan spotlights for low-voltage metal halide lamps ensure that the podium is well lit with minimum glare.

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ERCO Light Clients used include Slim varychrome downlights, Quadra wallwashers and varychrome wallwashers, Optec varychrome spotlights, Parscan spotlights, Stella projectors and Focalflood varychrome facade luminaires.

The existing laptop at the speaker’s podium is also used to set up and configure the lighting system via the ERCO Light Studio software.

ERCO Light Changers are mounted as wall operating elements. The illuminated touch screen permits the easy selection of scenes during normal operation.

Especially suited for varychrome luminaires, Light Studio offers easy-to-use tools for colour selection and for setting up dynamic light effects.

All nine of the Light Servers, the DALI controllers of the lighting control system, are mounted in a distribution cabinet in the ERCO auditorium. Their compact nature would also allow them to be mounted separately, saving additional space. For DALI systems with more than 64 addresses, the Light Server 64+ is simply networked via an Ethernet connection.
Energy efficiency with lamp technology

Australia’s ban on incandescent lamps has sparked off a worldwide discussion on saving energy in lighting. However, since this environmental debate is restricted to just a few types of lamp and their luminous efficacy, only one of several relevant aspects of architectural lighting is under discussion.

Traditionally it is the domestic housing market where builders deploy general lighting service lamps. Commonly known as light bulbs, the general service lamp is an affordable and easily dimmable light source with a pleasant, warm colour. In the commercial market however, this lamp’s importance has been rapidly diminishing for some time. The short lifespan and low luminous efficacy due to the high degree of heat radiation make general lighting service lamps uneconomical. With low-voltage halogen lamps, luminous efficacy and lifespan are improved by a factor of two. In terms of special requirements including brilliance, dimming control and colour rendition, they remain the best choice. As with incandescent lamps, low-voltage halogen lamps are thermal radiators and offer the advantage of a continuous spectrum.

Although exchanging incandescent lamps for compact fluorescent variants offers the user economic advantages, the quality of light with regard to brilliance and dimming behaviour diminishes. High Intensity Discharge lamps are extremely energy efficient and are an attractive alternative to low-voltage halogen variants. Metal halide light sources in particular have developed significantly in recent years. General and accent lighting has benefited from improved luminous efficacy, colour stability and colour rendition. A wider range, particularly in the newer more compact lower wattages, has allowed for a more comprehensive and sophisticated approach to the application of this technology. The miniaturised version of the metal halide lamp with a nominal capacity of 20W can for example, often replace the 90/100W low-voltage halogen lamp. Only where dimming or multi switching are serious control criteria, in the domestic market for instance, does metal halide lamp use prove unsuitable. If technology continues to develop as rapidly as it has in recent years, even LED lamps may soon represent an energy-efficient lighting alternative; at present their luminous efficacy is around the same as that of halogen lamps.

Luminous efficacy cannot be the only criterion for the choice of lamp. In museums for example, there are strict requirements regarding the use of dimming. Colour rendition with a continuous light spectrum is also a prerequisite for the museum designer. To get a balanced overview of a lamp, it is not just the level of luminous efficacy that should be taken into account, but also the question of what the lighting requirement is and how the lamp is manufactured. The efficient use of lamp lumens also calls for precise lighting and reflector technology in the luminaire, optimised for the lamp in question.

Energy efficiency and visual comfort through intelligent design

Together with efficient lamps and luminaires, intelligent lighting design offers great potential for saving energy. Neither the removal of lighting nor the use of highly efficient but dazzling luminaires can be seen as satisfactory solutions. Rather it is a question of how the designer can achieve both optimum light quality and energy efficiency.

Different lighting requirements in different parts of a room mean that guidelines on minimum illuminance do not have to be applied to the entire room. In an office for example, illumination, graded in accordance with visual tasks, can lead to energy savings: adequate brightness for the immediate work area, a lower level for the wider working area of the desk and a further reduction in the lighting level for the circulation area.

Unlike quantitative lighting design, qualitative lighting design allows thought to the psychology of perception and to personal well-being. Subjective perception of brightness in architecture is influenced less by the strength of the illumination on horizontal work surfaces than by the illumination on the vertical room surfaces. This means that wallwashers may be used to create an intense impression of brightness with little energy use.

In terms of luminaires with a particularly high light output ratio, qualitative lighting design also means that possible glare from unshielded lamps should be taken into account. Darklight reflectors on the other hand, offer both a good light output ratio and maximum visual comfort. As long as the eye is in the cut-off angle of the reflector, there is no glare.

A lighting control system is another tool for saving energy. With the latest generation of system, light scenes can be composed whereby only the degree of illuminance required is produced in a given area of the room by dimming or by the switching off of specific luminaire groups. Combined with programmable timers, motion and brightness sensors, the user can also bring up the light scenes automatically. New digital light technology such as DALI (Digital Addressable Lighting Interface) reduces the outlay for such terms considerably. If as expected energy prices continue to rise, investments in modern efficient technology and in intelligent qualitative lighting design will pay dividends over even shorter periods.

Thomas Schielke
Rationalisation has brought huge benefits to the banking business. The self-service model through personal ATM and on-line transactions has revolutionised the way we handle our money. A downside to these changes however, is that staff no longer enjoy regular interaction with the customer at branch level. For this reason, Deutsche Bank’s Q110 Project has been experimenting since the autumn of 2005 with a test case branch on one of Germany’s top shopping streets, Berlin’s Friedrichstrasse. The new service and design concept is aimed at tempting customers back and – it’s been a great success. On the occasion of the “Business Premises of the Year 2007” award, the bank announced in the specialist journal “Geldinstitute” that, since it opened, Q110 has acquired over 50% more new customers than other branches of comparable size.

One of Germany’s most experienced firms for retail architecture, Dusseldorf-based Schwitzke & Partner, was commissioned to undertake the architectural design. Their idea was to make tangible the abstract concept of money by physically presenting the customer’s all round consumer wishes. For this the architects created zones, which are regularly transformed – one month there’s a travel agency, followed by an organic produce stall and a car showroom. Contact with the bank’s employees takes place in a central “forum” – without barriers and at eye level. Consultations move at any time from the elegant café lounge to more discreet meeting rooms, while Childminders keep an eye on the customers’ children in the dedicated play zone. This customer-oriented scenographic concept, based on a temporally and spatially flexible platform, is assisted by lighting design from Lichtplan in Cologne. Different qualities of light structure the room and allow visitors to rapidly orientate themselves amidst the surprisingly rich variety of activities offered by this bank of the future.

Deutsche Bank Q110

In the Friedrichstrasse in Berlin, Deutsche Bank gives an insight into how its branches will look in the future: colourful and free of barriers – more lounge space than counter area.

Architect: Schwitzke & Partner, Dusseldorf
Lighting Design: Robin Uber, Lichtplan, Cologne
Photos: Sabine Wenzel, Berlin
www.q110.de

Unlike standard banks, Q110 has adapted its opening times to fit in with those of the neighbouring shops, department stores and boutiques – which means that it’s open until 8.00 p.m. and on Saturdays. On special occasions such as the 2006 Football World Cup, it was open even longer. The reward for this customer-friendly attitude is an average of 700 visitors per day, 91% of who described the concept as “good” or “excellent” in subsequent surveys.

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The Quadra programme includes downlights, wallwashers and recessed spotlights. With these luminaires, designers are able to use a single aesthetic to develop the central aspects of a lighting concept such as general and accent lighting with vertical illumination.
For decades the Kurfürstendamm was the undisputed number one shopping address in Berlin, but since the fall of the Berlin Wall, former areas of East Berlin such as Mitte or Prenzlauer Berg have been transformed into young and trendy shopping districts. This has caused difficulties for retailers of international brands when selecting locations for new stores. Camper Shoes however, solved this problem with ease. In addition to the existing shop on Neuen Schönhauser Straße in Mitte, Camper simply added a second branch, which provides a breath of fresh air to the established neighbourhood in Charlottenburg’s show avenue.

With the idiosyncratic company motto, “Walk, don’t run”, Camper has made impressive progress over the last 30 years to become an internationally successful retailer of shoes, for which simply “fashionable” would be the wrong word. The group deliberately separates itself from the mainstream, recalling its roots in rural Majorca and promoting an ecological image of low-polluting, recycled materials. On the road from “fashion brand” to “culture brand”, Camper commissioned international architects and interior designers to formulate experimental shop designs: the first organic fast food restaurant and an alternative hotel now broaden the offering available under Camper’s umbrella brand.

Brazilian brothers Fernando and Humberto Campana from São Paulo designed the new shop on Kurfürstendamm, which opened its doors on 14 December 2006. It is the wall design, which particularly catches the eye: piles of brightly coloured flags made from print reject paper adorn the walls. Being torn, new patterns are constantly being created and visitors to the shop are enthusiastically encouraged to help create new designs.

The lighting of the salesroom is provided entirely by Quadra System products within a ceiling-integrated solution. Downlights and directional luminaires are used to highlight the products and the artistic wall design is enhanced by wallwashers. The use of long-lasting and particularly energy-efficient metal halide lamps, helps Camper to endorse its reputation as a progressive, environmentally-aware company.

“Fashionable” is the wrong word to describe Camper shoes. With their authentic original style, they have acquired a huge following away from the mainstream. Quadra downlights provide glare-free brightness on the wall presentations and wallwashers create the vertical lighting.
US Air Force Memorial

Three enormous spires made of stainless steel and concrete, soar skyward, helping to shape the US Air Force Memorial in Arlington near Washington DC. At night, Beamer projectors provide the monument lighting.

Only the Potomac River separates the US capital Washington from the air force base at Arlington. A Foundation inaugurated specifically for the purpose erected this highly visible Memorial to the fallen American airmen from all conflicts. The three spires, each towering over 80 metres and curving away from each other, are made of reinforced concrete clad with stainless steel. They were designed by James Ingo Freed, a partner with the architectural firm I.M. Pei, who died in 2005. The shape is reminiscent of the contrails of Thunderbird aircraft in a “bomb burst” maneuver.

For the memorial, the lighting designers of the Office for Visual Interaction (OVI) developed a concept which has made the spires appear to be lit by themselves from within. This has given the construction an architectural quality during the night as well. The unusual design of the memorial presented a particular challenge: with their slender shape, the spires offer only a small surface for lighting. In addition, rules were laid down by the air traffic safety authorities. To avoid having to install red marker lights, the designers had to ensure minimum illuminance at the tips of the spires. They achieved this using the tightly bundled beams of precisely aligned Beamer projectors, fitted with powerful 250W metal halide lamps. The projectors are mounted outside the visitor’s field of vision, hidden behind the granite inscription walls.

Moving downward from the accented upper third of the spire, the illuminance initially fades. Additional elements of the memorial’s lighting design include Beamer projectors in the plinth areas, illuminated floor bases of satined glass which form a five-pointed star, the emblem of the Air Force, and Tesys in-ground luminaires for lighting the bronze “Honor Guard”.
The construction and lighting technology of ERCO's outdoor luminaires are developed for optimum performance using modern metal halide lamps. For the Air Force Memorial, the designers chose lamps with a coolish white temperature of 4000K, to match the stainless steel surface of the spires.

Alongside aesthetic criteria, the lighting concept also fulfills air traffic safety requirements. To ensure this, OVI produced numerous computer studies on the alignment of the projectors. In practice, the alignment was achieved with the help of laser aiming equipment; afterwards, industrial climbers from the UK confirmed from measurements taken at a height of 80m, that the required illuminances had really been reached at the tips of the spires.

Office for Visual Interaction (OVI). In 1997 Jean Sundin and Enrique Peiniger founded OVI in New York. They have worked on projects such as the Scottish Parliament, the Rosenthal Center for Contemporary Art and the New York Times Building. Enrique Peiniger (B.Arch., M.A.) combined a study of Architecture with other disciplines. The meaning of perception and the influence of architecture on society were the main focus of his studies. Jean Sundin (IESNA, IALD, PLDA) holds a BFA in Interior Design and has been involved in world class projects as a lighting specialist for over 20 years. She is the co-author of the IALD Lighting Specification Guidelines for North America.

www.oviinc.com

www.airforcememorial.org
Annemarie Börlind

Natural cosmetics are a global trend. With its "Store & City Spa", the German brand Börlind has made a striking statement by opening in the fashion capital Milan.

The expression "Made in Germany" makes one think of cars and machinery. However, German companies producing natural cosmetics are also very successful in the international market. One example is Annemarie Börlind a company, which has developed from a small business in the Black Forest town of Calw into a manufacturer operating worldwide. Having achieved global status, the company is now intent on further raising its brand profile. To run side-by-side with the existing business there will be a combined store and spa where customers can experience the company’s product range via an array of holistic treatments delivered by professional beauty therapists. The first flagship store was opened in the fashion capital, Milan – on the Corso Como, home to a beauty and design-conscious clientele. Börlind worked on the design of the shop with Burk Architects who, like Börlind, are based in Calw.

The shop concept splits the total area of 80m² into two levels. An all-glass shop window draws passers-by onto the ground floor, which is completely dedicated to product displays and sales. The eye-catching feature is a natural stonewall, through whose horizontal gaps, a filigree product tableau is displayed. The opposite side of the room provides a contrast. A softly shaped cladded wall, from which bands of light emanate enhancing product plinths and counters. A stairway leads to the basement which houses a day spa where clients can allow themselves to be pampered with products from the Annemarie Börlind, Tautropfen and Dado Sens ranges. The natural stonewall extends over both floors, effectively connecting the sales area with the spa level. Here too, the curved wall cladding with flush-integrated bands of light offers a soft and gentle ambiance.

The material and colour concept diffuses a relaxing atmosphere of wellbeing and atmospherically reflects the brand message. The thoughtful lighting design achieves optimum visual comfort through the use of high quality lighting equipment. Skim downlights flush with the ceiling and wallwashers with metal halide lamps effectively light the sales level. Parscan spotlights on 3-circuit tracks lend flexible support in lighting the shop window and reception area.

In the basement, the Skim product group with trimless recessed detail and shadow gap are once again incorporated here. However, these are fitted with dimmable halogen lamps for the best colour rendition. The luminaire arrangement around the periphery of the room is pleasant for the clients. When on the treatment couches, uncomfortable glare is eradicated. Shapes, materials, colours and light merge at the new Börlind Store & City Spa into a stimulating experience that introduces a new, positive dimension into the cosmetics market.

Architect: Burk Architekten, Calw
Photographer: Frieder Blickle

www.boerlind.com

A natural stonewall serves to display products in the entrance area.
Skim downlights and wallwashers with metal halide lamps effectively ensure good illumination. This draws attention through the shop window.

Clean lines and high-quality materials convey the cosmetic manufacturer’s brand message. Thoughtfully planned lighting enhances the appearance and statement of the architecture.

In order to produce high quality beauty care products, plant-based raw materials, preferably from controlled organic cultivation, are used. Manufacturing methods focus on careful treatment of raw substances and the optimisation of energy. Animal extracts, mineral oil products, genetically modified raw materials and animal testing are most definitely taboo.

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An interesting experiment! Can a 1930s Mies van der Rohe design, unrealised during his lifetime, be transported wholesale to present day, sunny Florida? Technically speaking this wasn’t initially a problem for the young architect John Bennett. Moral responsibility lay with the builder, Terence Riley who is after all, one of the world’s leading experts on van der Rohe’s work. Now the director of the MAM (Miami Art Museum), Riley, during his time at the MoMA (Museum of Modern Art), was the curator of the celebrated retrospective “Mies in Berlin” in 2001. While preparing the exhibition, he discovered the design, which van der Rohe had created shortly after taking up his position as director of the Bauhaus.

The design foresaw a “flat-roofed construction with enclosed courtyard” as a model for a housing complex near Magdeburg. In this design, two parts of the house open into an inner courtyard: the front part contains the entrance, kitchen, dining area and living room, while the rear part contains two bedrooms and two bathrooms. The atrium swimming pool and modern house building services are concessions to today’s demand for comfort in Florida’s semi-tropical climate. To keep a balance, Riley and Bennett decided to exclude the grand materials such as travertine and onyx which van der Rohe preferred, in favour of polished concrete floors and white plastered walls.

Contemporary technology has also been used for the lighting, which is almost exclusively provided by Optec low-voltage wallwashers set in singles or in flush mounted tracks. The even, vertical illuminance throughout underlines the spatial tectonics and gives the walls an almost immaterial appearance. Van der Rohe, who was introduced to the benefits of wallwashing at the Seagram Building by Richard Kelly himself, would surely have approved.

Bauhaus in Florida: Bungalow, Miami

Terence Riley, a noted expert on the work of Mies van der Rohe, built a bungalow for himself in Miami based on an unrealised design by the master of the Modern movement.

There is no question that the architect, John Bennett, was deliberate in his use of light. After all, he was one of the initiators of the “Tribute of Light” action, which reconstructed the New York skyline with beams of light after the attacks on the World Trade Center on 11 September 2001. Here, in a private space, he uses the light to optimise visual perception of the architecture. Lighting tools such as Optec wallwashers, with their reduced structure, are ideally suited to the philosophy of “less is more”.

The concrete footbridge crosses the pool in the inner courtyard and connects the living and sleeping quarters, a solution which works well given Florida’s climate.
Backlights

Lumiville/InLight Expo 2007
(Lyon, 12-14 June 2007)
Lyon is well known in lighting circles and not only because of its traditional "Fête des Lumières". Since 2003 with the Lumiville Exhibition for outdoor lighting and for the first time in 2007, the InLight Expo for interior lighting, Lyon has attracted industry luminaries from far and wide to meet and do business. The show organisers registered over 12,000 trade visitors, many from other European countries.
www.lumiville.com

Backlights

Digital Origami
(72 Erskine Gallery, Sydney,
17-25 May 2007)
The German-Australian architect Chris Bosse and his students at the University of Technology Sydney created this room-filling installation from CAD-constructed and cut paper modules. Varychrome luminaires and a Light System DALI control from ERCO provided the exhibition with dynamic, atmospheric light.
www.chrisbosse.de/origami.pdf

Painted Light: Willem Kalf’s Still Life
(Suermondt-Ludwigs-Museum,
Aachen, 8 March – 3 June 2007)
“He would have been thrilled by these ceiling spotlights. Congratula-
tions to ERCO, who developed them.” These were the enthusiastic opening words by Benedikt Erenz in the weekly newspaper "DIE ZEIT" on 8 March 2007, writing about the Willem Kalf exhibition. He went on to describe the little show in Aachen as “one of the loveliest this year”. What more needs to be said?
www.willem-kalf.de

Bryce d’Anice Aime, Autumn-Winter Collection 2007/08
In searching for an original location for his collection photo-shoot, the young London fashion designer, Bryce d’Anice Aime discovered the ERCO showroom in Dover Street. For one day, stylists, photographers and assistants, models and make-up artists transformed the showroom into a studio - with ERCO products in the background as extras. ERCO’s London staff enjoyed the production, which provided them with an interesting distraction and an exciting glimpse of the fashion business.
www.bryce-danice-aime.com

An unusual location for fashion photography: the ERCO Showroom, 38 Dover Street, London.
Uniqlo Flagship Store SoHo, New York
The Japanese fashion chain Uniqlo is currently targeting global expansion, selling a vast range of simple, brightly coloured basics and sportswear. The illumination is a prime example of perfectly installed wallwash lighting with Lightcast lens wallwashers for metal halide lamps.


www.uniqlo.com