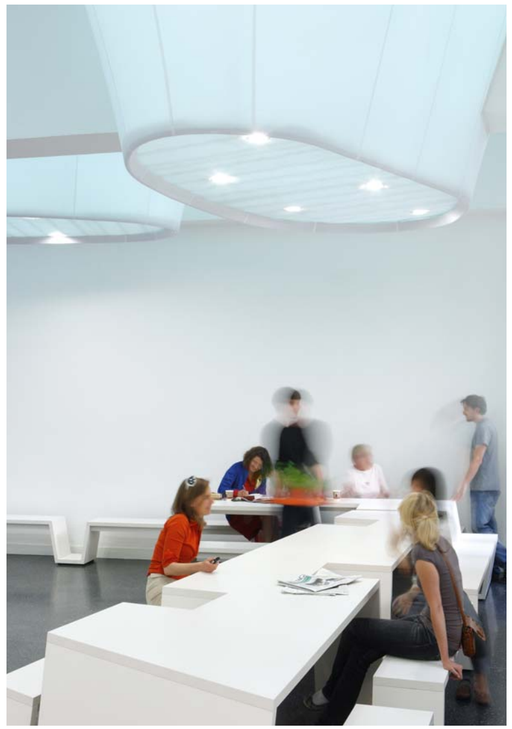
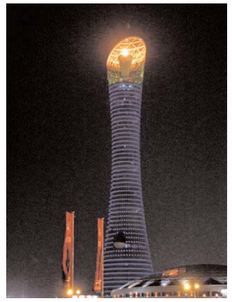
⇒ **Meteorosensitive**
University cafèteria in Berlin
The Baupiloten (Building Pilots), a team of architecture students from the Technical University of Berlin headed by architect Susanne Hofmann, have designed and built a new cafeteria for the main university building. The ceiling design comprises eight drop-shaped luminous textile elements that provide ambient lighting in the space as well as accent lighting over the tables. The shape of the large luminaires is a result of the pull on the textile when spanned. The lower sections consist of white, high-performance matting. This material is slightly transparent and not only acts as a diffuser, but also supports the acoustics in the space.
The colour of the luminaires changes according to the season. The warmer it is outside, the cooler the colour temperature of the luminaires, and the colder it is outdoors, the warmer the light is inside the cafeteria. In the winter warm red and orange light fills the space, the luminaires glowing like embers in a fire. During the summer time, cool bluish green light promotes a summer sky effect and creates a fresh ambience. In spring and autumn the colours are mixed. A lighting control system regulates the brightness levels in the café as the day comes to a close: the fixtures installed in the base of the luminaires that are focussed onto the tables are controlled via a daylight sensor.

www.baupiloten.com
Photos: www.janbitter.de



⇒ **Landmark icon**
The Aspire Tower in Doha, Qatar
The Aspire Tower, a landmark icon specifically designed for the Sports City complex in Doha, Qatar, recently received first prize for the exterior lighting category at the 2008 Middle East Lighting Design Awards". The flame at the top of the tower for the Asian Games was twelve metres high and could well be a record-breaker as the biggest gas flame in the world.
A somewhat unusual project for Kevan Shaw, who is generally not one for splashing coloured light about, but the tower has already become a landmark icon for the Sports City complex, which was actually the design intention from the start. The idea was that the changing colours should indicate the different events taking place at Sports City or eventually in the hotel itself.
Kevan Shaw does not see the tower as a media facade but rather as a dynamic lighting surface. The lighting scheme consists of a grid of almost 4000 RGB LED luminaires individually addressed to allow animated patterns to be played across the tower's skin. The design has been thought through to minimise waste light: the luminaires are installed to ensure the majority of visible light is emitted below the horizontal, the peak distribution being angled down at 30 degrees from the horizontal. This gives the best range of viewing with equal intensity.
The initial graphics for the tower were designed and programmed by KSLD. Additional graphics were created for the opening ceremony of the Asian Games back in 2006 by lighting designer Andrew Doig. This is not a "silent" project, but it has a definite aesthetic quality. The beacon element becomes a flame – a natural, dynamic medium for communicating activity in the sports centre in the immediate surrounding area. Let's enjoy the views of the tower while we can. The subtly changing colours over the outer skin of stainless steel mesh will not have the same effect once the hotel has moved into the building. Light will then be emitted from behind the inner glazed facade, and the overall effect will no longer be so uniform. Lucky for the Tower of Winds.



Lighting design: Kevan Shaw Lighting Design, Edinburgh/UK
Products applied: Solar RGB, custom design using standard 6 watt RGB board with Luxeon 1 watt LEDs; controlled by Artistic License Colour Tramp software and Art Net DMX distribution.

⇒ **Elegant colossos**
Bronze column at the Landesmuseum in Stuttgart/D
The massive column designed by the Stuttgart-based firm SCALA Architekten together with Dr. Greiner comes across as being light and dainty in spite of the fact that it is made of solid bronze and serves as an important information carrier. The product, which is a result of a design competition that took place in 2005, works well as an individual element or when applied in series in the urban context.
The Landesmuseum is a heavy sandstone building set on the diagonal axis to the castle in the city centre. Since the museum building has such a strong presence, it was decided not to add any signage to the facades. The architects designed two small elements that stand separately in front of the building plus a huge twisting bronze column as the central information carrier. The dimensions and unique form of the column render it a clearly visible icon, linking the museum optically to the surrounding public space.
The solid bronze column stands 16.40 metres tall and measures 60 times 150 centimetres at the base, but it is surprisingly elegant. The top of the column tapers from 60 to 20 centimetres and twists through 50 degrees, lending the column a dynamic quality and an air of lightness. The column comprises two roughly twelve-metre high backlit sections designed to take advertising material. These luminous panels are literally framed by the bronze sculpture. In spite of its unique appearance and size the column does not undermine the presence of the old building behind it, but rather takes a back seat without forfeiting any of its own impact.
Slide displays built into the base of the column at eye level show images of the museum exhibits with a running audio commentary. The large panel can be used as an information medium through the application of a translucent banner, or can be left blank as a luminous panel to provide ambient lighting within the urban space. The backlighting is effected through a combination of yellow and white LEDs, which can be programmed to create different homogeneous colours and a wide variety of nuances of colour. Two firm translucent membranes (ETFE and PVDF) set in front of the rolling banners ensure the panel is uniformly lit in spite of slight variations in depth.

Design: Scala Architekten together with Dr. Greiner, Stuttgart/D
Lighting design consultant: Lina Lichtarchitektur, Altena GmbH
Realisation of metal work: Pollux Edelstahlverarbeitung GmbH
Photos: P. Frankenstein / H. Zwietasch, Landesmuseum Württemberg, Stuttgart, Scala
Products applied:
Column: fibre optic
Inground luminaires: Sill, Type 032 for HIT-TC-CE 35/70 Watt with asymmetric optics

⇒ **Inspiration from paintings**
The Marcus Center for Performing Arts, Milwaukee/USA
After dark the otherwise somewhat sober block-shaped buildings that comprise The Marcus Center for the Performing Arts in Milwaukee, Wisconsin/USA are transformed into an exterior exhibition of light art. Paintings by local artist Georgia O'Keefe are reinterpreted in light and projected onto the facades. The smooth sandstone and sharp contours that define the building complex during the daytime give way to large format motifs after dark.
Built in 1969 and located in the center of the downtown theatre district, The Marcus Center hosts hundreds of events each year, representing a range of performing artists from the Milwaukee Ballet, Florentine Opera, Milwaukee Symphony, and touring Broadway and Off-Broadway shows.
The client's wish was to make the performing arts inherent to the inside of the building visible to the outside world. The idea was thus to create a world class light sculpture and to heighten the occasion of a night at the Marcus Center without tarnishing the mood with light that was overly bright or garishly colored and insensitive.
O'Keefe paintings such as "Red Cannas" and "Sunset" inspired many of the color combinations and the soft blending of the light.
Lighting designer Paul Gregory describes the lighting as "a celebration of the beauty found in nature".

Lighting design: Focus Lighting Inc., New York, Paul Gregory, JR Krauza and Josh Spitzig
Products applied: Philips Solid State Lighting (Color Kinetics)
Photos: JR Krauza

Apart from the goal of producing an optimum result, the lighting designers also opted to use state-of-the-art technology that would be both economically efficient and sustainable. LED technology was chosen for its maintenance value – an estimated 15 years maintenance free. The LED source also meant very low wattage and an ecology friendly system. A series of linear LED luminaires are installed along the upper horizontal edges of the building, with the vertical surfaces of set back sections illuminated from below. Special reflector technology allows color sequences to run both horizontally and vertically. The layered surfaces are designed to create a collection of individual images. The walls of the strong building designed by Chicago architect Harry Weiss virtually become an outdoor gallery at night. They are rendered as two-dimensional pictures that reiterate the colors in O'Keefe's paintings. The content and context are a little difficult to comprehend, especially since the paintings are not on show in the building. Onlookers who are not aware of the inspiration provided by the artist will view the illumination as a 20-minute spectacle involving color-changing facade lighting.
An urban space can provide a platform for several lighting installations of this kind, provided the result is coordinated by an expert at town planning level.