22 LIGHTING DESIGN Library in Leipzig/D 23

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The new library and media centre in Connewitz near Leipzig/D.

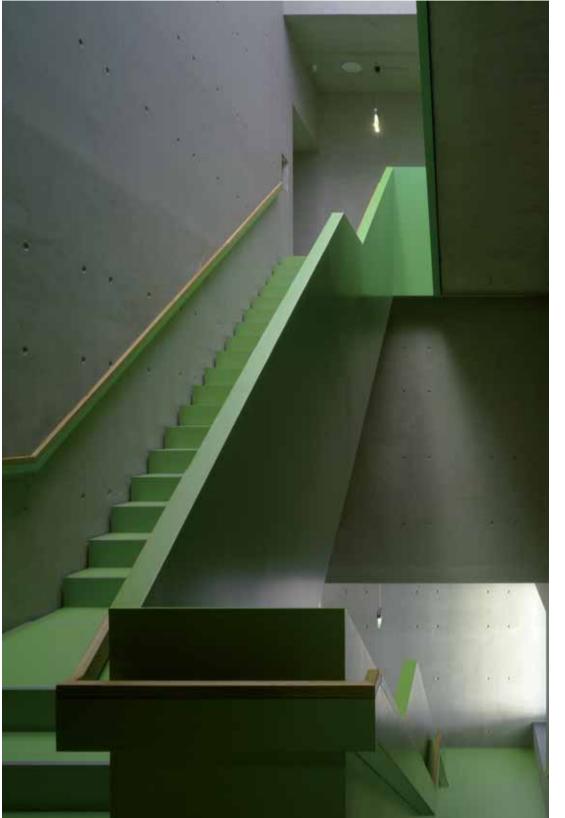
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The reading rooms in the new library and media centre in Connewitz near Leipzig/D designed by Berlin-based architect Léon Wohlhage Wernik extend eleven metres into the urban space. The projecting roof gives rise to a small covered public space that allows the new building to stand confident and proud against the adjacent historic urban backdrop. The strong presence of the building and its consequential intensive dialogue with the world around it mean that light plays a primary role. Not too little and not too much was apparently the goal. Sounds simple, but reality tells another story.









The University of Economics, Technology and Culture, the largest University of Applied Sciences in Saxony, Germany currently has around 7000 enrolled students. Given the growing number of students and the fact that new faculties were being introduced, the university building needed expanding. The restructuring of the campus gave rise to two straight-edged and apparently interlocked buildings on the former car park area on the corner of Gustav-Freytag-Strasse.

The jury's statement justifying the twin building as winner of the 2009 City of Leipzig Prize for Architecture declared that "with the design of the new library the team of architects from Léon Wohlhage Wernik in Berlin have succeeded in integrating the ensemble into the urban landscape, thereby creating an important link between the university building and a block of residential housing". The ensemble they describe consists of two sculpturally formed sections of building. One comprises the library and the other the university's media centre, which in turn accommodates the Faculty of Print and Media Technology.

Located in the south of Leipzig, the new building with its clear, clean lines stands vis-à-vis the neo-classical main university building, separated by Gustav-Freytag-Strasse. The architects made optimum use of the corner situation, by creating two functionally and spatially separate structures which give rise to a new public square and thoroughfare. Given the projecting roof that supports two upper storeys, this compact ensemble generates two covered outdoor spaces without forfeiting too much space that might have been used to fulfil the university's requirements. The overhang from the media centre is oriented towards the library and connects with the latter to create what can justly be referred to as a two-part architectural sculpture. The facades are tiled with white glass mosaics and twinkle in the sun – not that there is a lot of sunshine in Leipzig. The strong reflections on the solid sections of façade coupled with the large windows enhance the way the perforated façade toys with natural and artificial light.

The way the architecture is designed to interact with the urban situation is especially evident in the large panorama windows. These afford views in and out of the building, allowing the building to communicate with the outside world. The electric lighting thus acquires a special significance as a pointer to the architectural function of the building. It not only serves to render the environ-

You have to like green: by illuminating the coloured floor via the lighting incorporated into the handrail the impression of colour in the stair well is far more intensive than anywhere else in the building.

The large and, architecturally speaking, striking gesture of the overhang is accentuated by the only exterior lighting applied in the project. Narrow-beam metal halide downlights illuminate the entrance to the library and create a friendly, neat space which is clearly set apart from the surrounding public space. Life inside the building is communicated outside to passers-by through the windows - especially in the hours after dark when the brightly coloured reading rooms reflect light outside the building.



The original plan was to have the ceiling illuminated uniformly and no light on the coloured walls. Unfortunately, in the course of the design process different luminaires were applied than those originally planned. A lighting professional would have been able to see the difference. The inadequate result only became evident when the project was finished.

ment visible, but allows passers-by to understand the spatial constellation of the structure. The architects obviously felt there was a conflict between rendering the architecture visible after dark and being open to criticism for having promoted "light pollution". In this sense, they have managed to underscore the presence of the building at night while keeping the lighting discreet. The functional lighting does a double-act, drawing attention to the building and communicating its why and wherefore. Additional lighting components are superfluous. The building glows like a lantern. The reading rooms in particular come across as huge TV monitors displaying life inside the library.

The library building accommodates 800 workplaces. It is five storeys high, whereby the three upper floors extend out over Gustav-Freytag-Strasse. The main entrance to the library is under the projecting canopy. which renders the corner of the street a neat public space. Visually, this lower section of the facade drops back to the height of the facade of the adjacent historical building. The panorama windows in the reading rooms in the section overhanging the entrance literally reach out into the urban realm. After dark, the light from the downlights in the canopy accentuates the space at the corner of the street and invites people to enter the building – light acting as a mediator between public and private space. The randomly positioned narrow-beam metal halide downlights are more concentrated towards the entrance, thus guiding visitors into the building.

Passing through the glazed entrance, the visitor enters a lobby space with lockers. What is particularly striking is the green floor, which begins here and continues through all public circulation areas. The room is quietly illuminated by a regular layout of downlights with frosted diffusers. Diffuse lighting dictates the atmosphere throughout the entire building. The colours are very much in evidence, but not the lighting. To the one side of the lobby area a series of bright blue seats – a pleasant contrast to the green floor – invite visitors to rest and peruse magazines. Had these strong colours been directly lit, they would probably have dominated the space too much. The continous lines of diffuse fluorescent lighting in the foyer keep the colours quiet and discreet. The image of these bright lines of light against the dark concrete ceiling is a recurring design element and thus relatively dominant.

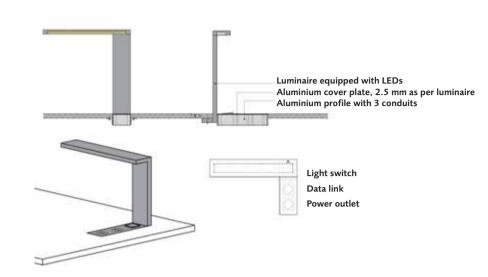
The built-in furniture, such as the reception desk in the foyer and the information points on the upper floors, was custom designed by the architects. The working surfaces are made of white Corian material and lit softly from above by the fluorescent battens. Individual areas are primarily accentuated using colour, materials and their different reflective properties, with light taking a

secondary role as a definer of zones. In this regard, the bookshelves and the spines of the books in particular are illuminated, thus making them the focus of attention in the space against the unlit ceiling surfaces. The shelf lighting is achieved using custom designed fixtures equipped with linear fluorescent lamps. The housings have received opal diffusers in order to generate some ambient light from the same fixture. This is rather unfortunate, because an asymmetrical reflector and the direct illumination of the books would have provided sufficient back reflection into the space to answer this purpose.

The main stairway in the building provides access to the upper floors and links all public areas. It comprises the backbone of the building and was designed separately and regarded as a special feature. The green colour used for the floor has also been applied to the sides of the handrail mounted on the wall, underlining the unique quality of the entire staircase as a feature unto itself. Lighting integrated into the handrail and directed downwards onto the steps underscores the quality of the colour. Recessed downlights mounted in the ceilings above the landings put light onto the horizontal surfaces and make for a contrast to the relatively dark flights of steps, where light only bounces off the green floor. Unfortunately, these downlights are also equipped with frosted diffusers, which make for a very uniform atmosphere. On the ground floor and the top floor daylight falls through a large window, or rather skylight. The natural light is complemented by metal halide downlights in the lantern that direct light down into the stair well which is unfortunately a bit on the small side. On the upper floor, where one perceives this impressive direct light, one becomes aware of the fact that differentiated lighting is missing in other parts of the building. This space is especially pleasant, even if – of perhaps because – the green floor seems to be more vivid thanks to the direct light.

Once you have found your way to one of the upper floors via this staircase and successfully located the book you were looking for, you can withdraw to one of the two-storey reading rooms which all have panorama windows and are oriented towards the road side of the building. Colour plays a significant role in these high rooms as well. The exposed concrete walls in the different rea-

The task lights were developed by the architects in collaboration with the lighting manufacturer. They are equipped with four 3.5 watt LEDs with colour temperatures of 6000 and 3500 Kelvin. The LEDs are set at a slight angle and radiate sufficient light onto the working plane. The luminaire is made of solid metal to guarantee clean edges and to promote heat dissipation.



Concept drawings of the task light.



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ding rooms have received coloured glazes in blue, aubergine and yellow. Given the grey concrete base, the colours develop attractive gradations over the expansive surfaces, which in turn renders them a unique colour group. Three wall-mounted wall washers on the narrow wall light the space indirectly via the white ceiling. The wall washers are equipped with 150 watt metal halide lamps and asymmetrical reflectors to achieve the desired smooth even illumination of the ceiling surface. The luminaires are concealed within an elongated rectangular steel case, which also accommodates the ballasts. Each case measures 3500 by 205 by 150 millimetres and is perceived as one large linear luminaire.

Given their location, size and representative quality, both within the architecture and when viewed from the outside, the high-ceilinged reading rooms form the core of the library. In spite of the fact that they are two storeys high the user never feels lost: human scale is maintained through the dimensions of the desks. The task lights on the desks create pools of light that offer the required intimacy for study within the uniformly lit space. This generally applies to all task lights, although in this case the custom design luminaires equipped with LEDs only manage to win the battle against the omnipresent diffuse ambient light in part. From a design point of view, these sharp-edged luminaires not only appeal to minimalists. They are especially effective when applied in large num-

The architects who worked on this project are known for their design consistency, which in this project is also demonstrated in the secondary spaces. The group of offices to the rear of the building have received the same fluorescent luminaires as the secondary group rooms and work stations. Repeating this feature has undoubted recognition value and lends the building an element of

The goal of the architects, who were working without input from a professional lighting designer for the main part of the project and practically handled the lighting on their own, was to depict the building as one entity. Individual lighting solutions for the various sections of the library, as well as for the bookshelves, was desired, although not only via accent lighting. This goal has been reached, although having experienced the overall building one might challenge the extent to which this affects the general atmosphere inside the building. The lighting does not adopt any kind of leading function, does not accentuate or underscore any particular elements. The idea of creating a series of light and dark zones, which is what the architects intended, unfortunately does not

Above: during the daytime, natural light brings out the colours of the reading rooms far more intensively than under the electric light after dark. The indirect lighting provided by wall washers tones down the colours of the walls. Task lights on the reading tables generate the intimacy required for reading and studying.

Below: lines of light are used consistently throughout all main and adjoining rooms. The housing profile remains the same; the technical components vary according to the function the lighting is required to fulfil.

work given the diffuse quality of the general lighting and the ensuing lack of contrast. After a time, users of the building start to show signs of fatigue, which is often unknowingly attributed to the nature of the literary studies pursued there. Focussing brightness in specific areas would certainly have aided orientation and enhanced the general atmosphere. Another attractive, albeit formal, feature are the recurring lines of light and the way they reinforce the light-and-dark contrast in the ceiling area. And it is a good thing that there are not too many different types of luminaire. The overall atmosphere is one of calm and there are absolutely no disturbing reflections. The structure itself is without doubt impressive, the lighting atmosphere inside the building less so. The lighting design concept is sound and supports the architecture – which is how it should be – but it goes no further than that. There is no hint of drama or interest in the spaces, which cleverly applied light can achieve. Only in the outside entrance area can one claim that there is anything approaching 'atmosphere'. The transition from outside to inside is exciting. A qualified lighting designer would have seized the opportunity to continue this approach inside the building, had he been further involved in the project. The ideas are good, but the technical realisation does not follow suit. As is unfortunately so often the case, there was no budget and above all a lack of awareness of the importance of involving a lighting designer for the duration of the project, which the architects now also regret. In this context, the goals set were achieved, in spite of the constraints laid down by the client to "meet standards" and "to keep to the defined budget". The result is an outstanding piece of architecture with a lighting concept that works.

Project team:

Architectural design and lighting design: Léon Wohlhage Wernik Architekten, Berlin/D Initial lighting consultant: Licht Kunst Licht, Bonn and Berlin/D

Products applied:

Canopy at entrance:

20 watt HIT recessed downlight, DOC220, We-ef

Stair well:

Landings:

recessed Panarc luminaire with diffuser equipped with TC, Erco Stair well lantern: 70 watt HIT recessed Lightcast downlight, Erco, with Luxlift for maintenance

Handrails: 28/35 watt Ice Open battens, Regent, in Channel profile with frosted diffuser

Shelf lighting:

Modified Kassette M60 fluorescent batten with custom bracket, Semperlux

Foyer and information areas:

six-metre long T8, 28 watt Kassette M60 fluorescent battens with opal diffuser, recessed and pendant versions, Semperlux Reading rooms: HIT-DE-CE 150 watt Trinon uplighter, Erco;

installed in steel profile on site Task light: custom designed for 4 x 3.5 watt LEDs,

2 x 6000K and 2 x 3500K, Kotzolt



The ilumination of the bookshelves makes it absolutely clear what the focus of attention is in the space. The spines of the books glow in the otherwise almost dark space. The mix of colours, shapes and sizes determines the atmosphere in the space.