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THE LOUIS POULSEN MAGAZINE OF LIGHTING AND ARCHITECTURE 2007 584

New Domiciles for Louis Poulsen Lighting

Tsuruoka Art Forum

Santa Monica Library

The light of the Thorvaldsen Museum

louis poulsen

BY THOMAS DICKSON

Photo: Clearlight

A living showroom

Louis Poulsen Lighting has brought all of its Copenhagen activities together under one roof. The company's new building on Gammel Strand has been extensively refurbished, and converted into a dynamic, open office environment – and a large showroom.

Louis Poulsen Lighting has its new home by the canal opposite Christiansborg Place Chapel.

As part of a sweeping process of modernisation and change, Louis Poulsen Lighting opened a new factory in Vejen, Jutland, in 2005. A year later, it was the turn of sales, marketing and product development to be relocated. The move meant saying farewell to Nyhavn 11, where Louis Poulsen Lighting has had its address since 1908, and to Sluseholmen, where its lamps have been produced since the 1950s. Its new home on Gammel Strand has been renovated from top to bottom and now doubles as a dynamic workplace and huge showroom.

The spot was originally occupied by four smaller town houses, which merged into a single building over time. First it had housed a carpet shop and production facility, then an insurance company, then a bank. Despite its exclusive location, by the canal, and opposite Christiansborg Palace Chapel and Thorvaldsen's Museum, however, time had ravaged the 1930s building. Its 3,000 m² had been divided up into a large number of rooms, and it was dark, with daylight unable to penetrate the low-ceilinged rooms properly.

The property had also lain empty for some time while the owner, ATP, sought new tenants. During that period, all the inner partition walls had been removed, leaving only a shell. It was in this state that the management of Louis Poulsen Lighting first encountered the property one day in early 2006, when they inspected it with Jørgen Nyboe, a partner in PLH Architects. The potential was obvious but a great deal of work would have to be done. To make matters more pressing, the date was fast approaching when Louis Poulsen Lighting would have to vacate its old home on Nyhavn. Some rapid decisions were made and, thanks to the enormous efforts of the architects and the contractors, Jakon, the building was ready in nine months.

Conversion

One major advantage of the building was that, unlike the majority of its neighbours in the historic heart of the capital, it was a mere 70 years old, and unlisted. This meant that the only constraint was compliance with the city council's standard restrictions on façades, so PLH had great freedom to transform the interior. In particular, the large, atrium-like open space reaching up through all five floors adds to the architectural and spatial experience and gives visitors and the 80 or so staff a fine view of everything going on in the building. The addition of large windows at the top of one of the side walls also allows daylight to flood in.

The fact that the building was a prefabricated concrete construction that had

The new building acts a giant advertisement for the company – at the heart of the oldest part of Copenhagen.

The third-floor canteen also serves as a conference room. The room's four-colour lighting is by Collage and Warehouse Pendant (ET Lumiere).

been cast on site did give rise to challenges, but most of these were solved by embedding steel girders for reinforcement. The girders are visible but painted in the same white as the rest of the exterior walls and ceilings; in general, a virtue has been made of necessity, and everything is visible, from the girders to all types of installations and ventilation fittings. To a great extent, this decision was based on the low floor-to-ceiling height. Lowering the ceilings further to hide the fittings would only have made the rooms feel even smaller.

The general idea was to make the building as bright, open and transparent as the existing structure would allow and, to this end, features such as handrails made from pre-stressed glass and bannisters and handrails made from thin matt steel have been used. Insulation on the ceilings and sound-absorbent panels on much of one of the side walls - all in white, of course - allow for the acoustics. The floors are long-stave parquet in light maple, which conveys a dynamic, small-patterned idiom. A south-facing roof terrace has also been added, allowing for outdoor dining in summer.

With this wonderful structure, Louis Poulsen Lighting has created an oasis in the middle of the city. As Managing Director Peter Thorsen puts it: "Louis Poulsen Lighting has a fantastic building here. Not only do we have big new premises, but their location in the heart of inner Copenhagen, close to the pulse of the metropolis and the main shopping area, also pays homage to the company's history."

Contents

The new building is not just an office workplace. It also serves as a giant advertisement for Louis Poulsen's many lighting solutions. Pendants hang from the ceilings, and lamps are embedded in floors, podia and walls throughout the building. A rig is mounted at the top of the main stairway, from which are suspended some of the company's great fixtures, decorating the open space below. The roof terrace and planned courtyard will also house a selection of Louis Poulsen's outdoor solutions, which visitors will be able to examine and enjoy during the darker hours. The only part of the building not fully indicative of the nature of Louis Poulsen Lighting is the façade, where local authority lighting regulations hold sway.

One of the most fascinating elements of the building, especially for visitors, is one that came with Louis Poulsen from Nyhavn. Adjacent to the public showroom on the ground floor, you will find the famous lighting laboratory, part of Louis Poulsen's unique way of presenting its lighting philosophy. It allows you

All chairs throughout the building are of the Ice design by Kasper Salto, produced by Fritz Hansen. The height-adjustable tables and cupboards in maple are delivered by Ingvard Christensen.

The large atrium extending through all five floors makes the building light and open. Five meter tall windows at the top of the side wall allow daylight to flood in.

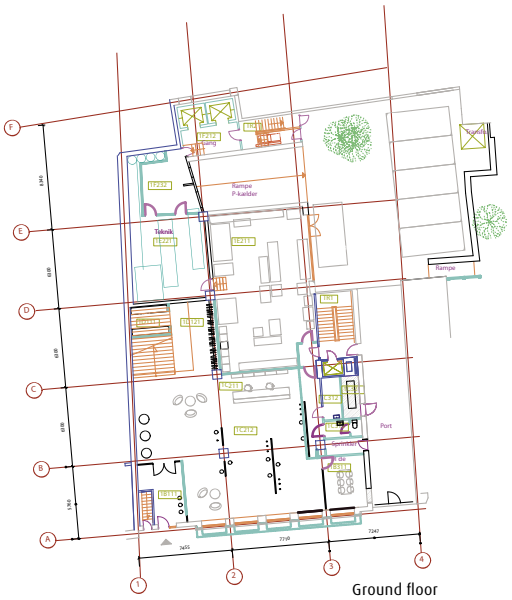
to walk in from the street and enjoy an introduction to lighting. Here, you'll learn about the differences between daylight and artificial light, how different sources of artificial light reproduce colours, the difference between 'cold' light and 'warm' light, and much more. The lab is primarily used to instruct Louis Poulsen Lighting's staff and dealers, as well as architects and designers, but other people are also able to come in and have a look.

The interior decoration is also influenced by the concept of the expanded showroom, which permeates every floor. It requires a little more order, tidiness and discipline than in a normal workplace but, at the same time, the classic cell-like offices of the old headquarters in Nyhavn have been replaced with a new type of open workspace. The generous use of floor space gives staff plenty of room, enabling the individual to create his or her own little universe within the new office landscape. Each floor also has a meeting room, which can be split into two smaller rooms if necessary, thanks to swing doors. Each floor has its own bar-shaped kitchenette as well.

The FK chair by Walter Knoll was chosen for meeting rooms and lounges. The small PH Artichoke works well above the low conference table.

Different departments are housed on different floors, from marketing and international sales at the top of the building to the showroom and a small model workshop on the ground floor. And on the second-top floor, the canteen has a large self-service table at one end,

Gammel Strand 28 is exclusively fitted with the company's own lighting solutions. One room uses Charisma Queen, designed by PLH Architects, who also refurbished the building.



Ground floor

while the other end can be used for courses and larger meetings. Peter Thorsen says: "The amount of floor space spread over several floors gave us plenty of options and allowed us to bring together all of Louis Poulsen Lighting's Copenhagen staff under one roof. We are extremely satisfied with the solution. It has proven to be a hugely positive experience for staff and visitors alike."

Thomas Dickson, Architect and Associate Professor, Center for Design Research, Aarhus School of Architecture.

LOUIS POULSEN LIGHTING A/S, COPENHAGEN
CLIENT: ATP EJENDOMME
ARCHITECT: PLH ARKITEKTER AS
ENGINEER: JØRGEN WESSBERG A/S
CONTRACTOR: JAKON A/S
ELECTRICAL CONSULTANT: KIRKEBJERG A/S AND VINTHER & STRØM A/S
INTERIORS: PLH ARKITEKTER AS
AND LOUIS POULSEN LIGHTING A/S

The showroom on the ground floor allows the public to seek advice and instructions about lighting. The showroom also contains the company's own light studio, where you can discover things like how different light sources reproduce colours.

The gold-leafed figure holding a sugar loaf is a copy. The original is to be found above the doorway to the company's previous headquarters in Nyhavn – a reminder of the sugar refinery once located there.

Photo: Anders Sune Berg

Louis Poulsen's own graphic designers were responsible for the slightly unconventional, highly functional sign painting on the outdoor façades.

Louis Poulsen Lighting's new factory

made in denmark

Louis Poulsen Lighting has moved its production but remains committed to Denmark. Relocation represents an ideal opportunity to make production and working processes far more flexible.

BY THOMAS DICKSON

In 2005, Louis Poulsen Lighting had to make a decision: should it move its manufacturing abroad, or remain in Denmark? Either way, there was no choice but to move production from Sluseholmen, a location rich in tradition, where the company had produced its lamps since the 1950s. A new local development plan has earmarked the site for a housing development. In the end, the management decided to stay in Denmark. The decision was largely predicated upon the desire to maintain the traditionally high level of quality and flexibility that well-trained staff would be able to guarantee, a desire reflected in the architecture and interior design of the new unit as well.

The new home for Louis Poulsen Lighting's fixtures is on the Jutland heath, in the middle of a rapidly growing industrial estate in the town of Vejen. The local architecture is generally epitomised by common sense rather than great vision, which makes the new complex really stand out in a positive way. Not that the buildings are brand new, however, having been acquired from a competitor, along with a larger paint plant and a small amount of machinery.

Architect Bjarne Frost has been in charge of the conversion since early 2005, and is responsible for ensuring that the premises live up to the demands of rational production. He also had to turn the complex into a friendly

A glass passageway binds the whole factory together, mentally as well as physically. In practice, it means people can move from one end of the large production plant to the other without getting their feet wet.

The huge, dark- and light-grey lettering of the signs – also used indoors – produces a decorative effect that injects life into the complex and gives it a distinctive flavour.

and inviting setting for the 225 employees' day-to-day endeavours. His design studio in Århus started by getting to grips with the scale of the task. Originally, the site consisted of three standalone and somewhat dissimilar concrete buildings, built at different points in time. They were not linked to one another at all until Frost came up with the idea of inserting a kind of 'main street', a broad passageway with glass walls, between the buildings.

As a result, people are able to move from one end of the big production plant to the other without getting their feet wet. It also makes the integrated nature of the production and the flow of goods and components through the building more obvious. Factory Director Søren Schøllhammer describes the passageway as a master stroke. 'It would have been very difficult to move goods back and forth between the buildings in the rain and snow. Now we have a much more coherent unit, not only physically but also in our minds, that incorporates the factory's different departments.'

It was exactly this kind of rational flow that was missing at Louis Poulsen's old factory at Sluseholmen. Previously, production and storage were spread over five different buildings – but even then, there was never enough storage space, so much of the stock was kept in upwards of 30 containers in the middle of the courtyard. A great deal of time was spent on internal transportation from one department to another, as well as in and out of the containers. Relocation represented an ideal opportunity to make production and working processes far more flexible.

A lamp is born

The layout plan of the new factory is almost a diagram of how a lamp is born. In other words, the physical arrangement of the buildings corresponds closely to the production process. Raw materials and semi-finished goods from elsewhere arrive at the southernmost building, which houses the metal workshop. This is where, for example, round

The technical staff are housed in an open area linked to laboratory facilities.

aluminium discs for lampshades are pressed and turned – either manually on spinning lathes, or in one of the three fully automatic presses the factory has at its disposal. A range of other metal components are also cut, manipulated and welded together here. Other components are delivered ready-made to the factory – including the famous three-layer hand-blown glass shades, which are produced by the world's leading glassworks, e.g. in Venice.

This southern hall is also the home of the surface-treatments department, where the components are cleansed, pre-treated and painted. From here, the parts are driven to the semi-finished goods warehouse. The packaging department and glass store are located in the middle building, which also houses the factory's reception, administration and test laboratory. When all the components for an order are ready, they end up in the assembly shop at the northern end of the glass corridor. Here, groups of staff working independently collate, test and package one order after another, before the goods are transported to the newly built finished goods warehouse. All the procedures are optimised and all transport is indoors.

Identity through graphic design

The new premises occupy 17,000 square metres of a 50,000-square-metre piece of land in Vejen, so there is also plenty of room for future extensions. In order to ensure a coherent architectural identity, all of the construction elements have been externally painted in the black-grey shade proposed by Bjarne Frost. On the other hand, it was Louis Poulsen Lighting's own graphic designers who were responsible for the somewhat unconventional signs painted on both the outdoor façades and the interior walls.

Indoors, the buildings are bright and airy. In several places, openings have been cut in the façade and new windows installed, so the factory area is flooded with daylight. The walls are painted in three standard colours

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In the light measuring room - the 'Black Room' - the quality of fixtures' light emissions is measured, one of the many tests and measurements each fixture is subjected to during the product development process.

Louis Poulsen's factory combines artisan traditions with cutting-edge technology. The metal shades are hand pressed, all fixtures are assembled manually and painted components are sprayed by hand or powder-coated.

Staff assemble the products in cells, usually with two or three people looking after assembly, testing and packaging.

throughout: light blue, green and sand. The huge, dark- and light-grey lettering of the signs on the walls, in both Danish and English, produces a decorative effect that injects life into the complex and gives it a distinctive flavour.

Wooden floors have been laid in the office areas, using a special type of ash parquet that consists of narrow slats. In conjunction with the fibre ceilings, these floors endow the premises with fine acoustics. Naturally, the company's own lighting is used to illuminate the buildings, including the assembly halls. Danish design is also evident in the furnishings – for example, Fritz Hansen's 'Ice chair' in the canteen.

Factory for modern one-offs

The decision to move from Slusen, as the old factory in Copenhagen was known, was made back in 2003. In practice, it was not executed until early 2006. 'We now have an integrated plant that lives up to contemporary standards,' says director Schøllhammer. 'Louis Poulsen Lighting consciously opted to remain in Denmark instead of moving production to either Eastern Europe or China, as other companies have often done in recent years.'

'As a design company that places great emphasis on craftsmanship and finish, there are limits to how much you can actually rationalise. Of course, as a production expert I would like to increase standardisation, but if the production process moves far away, it can be very difficult to guarantee high quality, especially in surface treatments. In addition, it is difficult to rationalise the production of the many different lines in small runs of on average 20 copies, the way we do,' Schøllhammer explains. 'Many of the orders we receive are special in one way or another. For example, they may require that the fixtures are painted in a particular colour. In that sense, what we produce often approaches the status of a one-off.'

Thomas Dickson, Architect and Associate Professor, Center for Design Research, Aarhus School of Architecture.

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• As part of the development work in Louis Poulsen Lighting, any proposed fixtures are subjected to a series of tests, all of which are conducted in the factory in Vejen:

• Photometry documents light emission from fixtures. The measurement is taken in a light-meter room, and the result is shown as a user-friendly isolux curve.

• A thermal measurement informs us of the temperatures to which the different components and materials in the fixture can be exposed. The thermal measurement determines whether a fixture is able to cope with the temperatures on the intended site of use.

• The electromagnetic radiation (EMC) from fluorescent tube fixtures is measured in the lab. The measurement ensures compliance with the maximum limits set for EMC radiation.

Products are dispatched to destinations all over the world from the 4,000 m² warehouse where finished goods are stored.

LOUIS POULSEN LIGHTING A/S, VEJEN
CLIENT: LOUIS POULSEN LIGHTING A/S
ARCHITECT: BJARNE FROST
ENGINEER: LARS KILLERICH
ELECTRICAL CONSULTANT: LINDPRO A/S
INTERIORS: BJARNE FROST &
LOUIS POULSEN LIGHTING A/S
GRAPHIC DESIGN:
LOUIS POULSEN LIGHTING A/S
LANDSCAPE ARCHITECT: BJARNE FROST

Photo: Clearlight

BY JACK TRUELOVE

Florida • Siesta Key, Sarasota, Florida • Siesta Key

This is where Florida living blasts through at its finest

The House on the Gulf

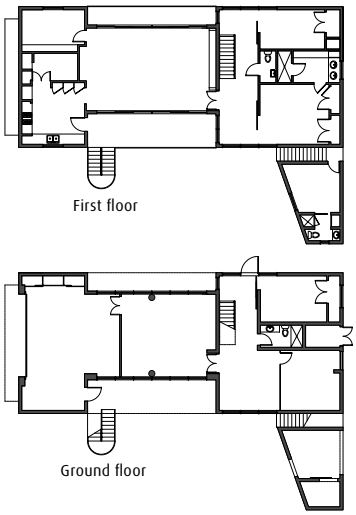
The simple, precise design of the house on Siesta Key, accentuated by its external stucco finish, is extremely striking. The white exterior reflects and enhances the sunlight, complementing the surrounding blue waters and green vegetation with great panache.

The west coast of Florida, through generations has attracted great numbers of visitors from the northern American states. The generous and sunny climate, the expansive and breathtaking beaches and the mild temperatures of the Gulf of Mexico all contributes to make it the ideal holiday destination. But it has also furthered the establishing of some interesting and laid back towns and communities along the thousand miles of coastline, where life is led in a lower gear than in most places. Surrounded by water, keys and seemingly endless beaches towards the west, and vast, expansive wetlands toward the east, stretching south all the way to the Everglades, Sarasota is ideally located just 50 miles south of the bigger and more bustling city of Tampa.

The house in Sarasota is in an ideal location, surrounded by sea, coral reefs and seemingly endless beaches to the west and extensive wetlands to the east.

Everywhere Sarasota touches on water; The big, open Gulf, generous bayou's, calm bays and the intra-coastal water ways that cuts a swath of emerald blue between the countless keys and minor islands, offer visitors and the people of Sarasota easy and imminent access to the water at all times.

Sarasota is today considered the arts capitol of Florida, and in many ways is a culturally lively city, further nurturing a growing movement that took its beginning in the late forties and early fifties. Sarasota established itself then, as a place popular among the artists of the day. An entry in a 1952 edition of the Sarasota Herald Tribune states that in that year, Sarasota had the most artists per capita of any city in the US.
Artist, writers and architects came together here, in a creative inter-action that, among many things, led to a period of great and innovative architectural creativity, inspired by the modernist movement from Europe and exemplified by works of Paul Rudolph,



The view of the lagoon from the top floor is superb.

Ralph Twitchel, Tim Siebert and Gene Leedy. A movement today recognized as the Sarasota School of Architecture.
This fortunate confluence of talent and inspiration founded a tradition for modern architecture present today in contemporary Sarasota. And a fine example of this is an unassuming, white, box-like structure with signature circular windows on each of its long facades, situated on a small cul de sac on the lush and green Siesta Key.

The approach to the house is along a small winding path, through lush greenery and dense trees, along one side of a land spit shooting into Little Sarasota Bay, and on the other an expansive view up the Inter-coastal waterway to the north.
This modest, but elegant house is ideally situated along the length of the spit of land, thus offering unobstructed water views to the north and south from the generous windows of the interior.
Pertinent to the nature of Florida light and climate, the building is carefully placed with a footprint of 9.1 meters X 21.3 meters with the façades running alongside the expansive views, allowing the placement of the pool on the sunnier south side of the house in the small garden.
The building was completed in 2000, designed by its then owner, French born industrial designer, Alain Huin, who studied in Paris and later in his career worked for Charles and Ray Eames in California. Today, Alain Huin lives in downtown Sarasota and makes a living as furniture designer.

Upon arriving to this house one is struck immediately by the simple, precise design, accentuated by the concrete block structure with stucco finish on the outside. The white reflects the sunlight with compounding effect and sets the house off with great panache, from the surrounding blue waters and the green of the vegetation.
Throughout, there is a distinct and purposely thought industrial feel to the house, countering the almost inherent sense of luxury that these surroundings would lend to any structure. The windows and doors are all industrial grade, the floors are polished concrete on both levels and the house is deliberately kept simple in its interior design, which allows every piece chosen to stand out against a clear and present architectural statement.
The house is built for the climate in which it exists. Which is to say that it offers all the traits needed in a house in a tropical environment on the water; the ability to cross ventilate through big, open sliding doors throughout the floors, a cantilever on the flat roof offering the necessary shade inside the house, created as a cut back terrace on the second floor on both sides of the house, offering seating areas well out of the sun.
The ground floor is designed with and penetrated by "break out" openings in the event of high water or hurricanes, which on occasion comes ashore along the west Florida coastline.
The entire 302 square meters of living area in this house is air-conditioned, but most days the wide glass doors simply remain open all day to the elements and the salty scent of the waters. The upstairs, where the expansive views are the best, is the actual living areas of this home.
The large living room is generously furnished, demonstrating the current owner's affinity for mid century modern furniture. The room is dominated by a few select light sources, their sculptural design lending themselves effortlessly to the overall feel of the space.
Centrally located in the room, as "the pièce de résistance", is one of a larger

Large sliding doors on all floors make ventilation easy. The flat overhanging half-roof provides the necessary shade inside the house and forms a retracted terrace on the top floor.

Siesta Key, Sarasota, Florida · Siesta Key, Sarasota, Florida ·

Sarasota, Florida • Siesta Key, Sarasota, Florida • Siesta Key,

The owner is a great fan of furniture by Ray and Charles Eames and Verner Panton. Louis Poulsen Lighting solutions are favourites too.

Two Louis Poulsen classics are used throughout the house. Arne Jacobsen designed the AJ series for the Royal Hotel, Copenhagen, in 1959. PH 80 was launched to mark Poul Henningsen's 80th birthday and is based on original drawings.

collection of classic American gas pumps, which blends very well in its industrial iconic design with the exposed and open truss ceiling that runs the length of the entire room.

In the two bedrooms, the study and the kitchen, as well as in the master bathroom and in the guest bath, the finish is gentler and subtler allowing for a calm and embracing environment.

In the study and in the kitchen, provocatively oversized circular porthole-like windows add a dramatic perspective to the exterior view.

An ever present element in tropical houses is the abundance of natural light, and throughout this home vertical blinds can be opened and shut to control perfectly the influx of light, and be used to not only shade the people inside reading a book but also protect precious furniture and artwork from the potentially devastating effect of long term high powered sunlight. It is outside, in the privacy of the lush garden that you go for the sun and to spend the day around the perfectly scaled swimming pool. To daze the afternoon away while Pelicans and Ospreys patrol the lagoon and the skies.

This is where Florida living blasts through at its finest.

After a long day by the pool, this home offers the experience also of an exterior hot tub, situated in an open space, on the ground level of the well-appointed guesthouse, an elegant free-standing building rising at the south East corner of the main building. This guesthouse has a small bedroom and a bath, both with expansive views over the waterway.

Despite the massive footprints of the great architects of the mid century movement in Florida, a house of this scale, with its well balanced size fitted to its location, its un-obtrusive and unpretentious exterior and well appointed, intelligent floor plan, is unfortunately rare today, even in Sarasota.

There are many people in the city of Sarasota who not only fight to preserve the houses that are still left here, from the great architects of the past, but who are also advocating the application of modern, environmentally sensible architecture and design.

But they are up against a fierce force, the popularity of the antithesis of Alain Huin's design, the present day McMansions and the Tuscan Style Palaces that are unfortunately thrown around the landscape indiscriminately.

PRIVATE HOUSE IN SIESTA KEY, SARASOTA, FLORIDA

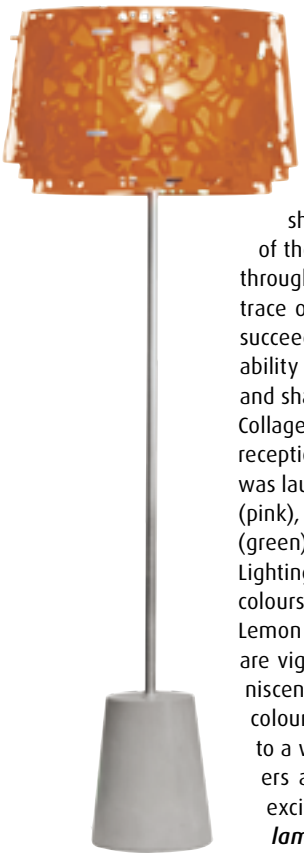
ARCHITECT: ALAIN HUIN

Campbell 210

In launching the Campbell 210, Louis Poulsen Lighting offers its customers new options for decorating with evocative and original lighting.
Campbell 210 is a new, smaller version of the Campbell pendant that met with acclaim in the market at its 2004 launch. With its 275mm diameter, Campbell is ideal for relatively large rooms, whereas Campbell 210 is exceptionally suited for private homes, restaurants, bars, hotel rooms, all settings calling for more intimate atmospheres. As an added bonus, Campbell 210 is very appealing in repetitive mounting.
The designs of Campbell 210 and Campbell are rooted in a desire to reflect the way we experience light in nature, where only one light source exists - and we never look directly at it. Our perception of light in nature is determined by innumerable layers – say in forests - which filter and reflect the light. Consisting of several layers, the Campbell pendants capture the essence of this experience and reflect softness, the hallmark of natural light.

juicy orange

lemon yellow



Collage in new inspiring colours

Louise Campbell found inspiration in nature's own light source when she created Collage. The idea arose out of the image of sun rays finding their way through tree foliage, leaving a shimmering trace of light and shadow. Louise Campbell succeeded in capturing the same changeability and infinite interplay between light and shadow in her design of Collage.
Collage met with an exceptionally positive reception in the market in 2005, where it was launched in Snow White (white), Hotlips (pink), Heavenly Blue (blue), Spring Green (green) Smoke Screen (smoke). Louis Poulsen Lighting now offers Collage in two new colours, vivid yellow and orange, called Lemon Yellow and Juicy Orange. The colours are vigorous and bright, awakening a reminiscence of spring and summer. The new colours expand Collage's field of application to a wide range of interiors where designers are looking to use colours to convey excitement and energy. ***The Collage floor lamp is not yet available in the U.S.***

Munkegaard Mega

Munkegaard*-series enlarged

By launching two new recessed fixtures, Munkegaard Micro and Munkegaard Mega, Louis Poulsen Lighting completes a fixture series that is one of the top sales successes in the company history.

So far, Munkegaard has been available in three sizes: Ø 265mm, Ø 460mm and Ø 525mm. The launch of Munkegaard Micro and Munkegaard Mega measuring Ø 115mm and Ø 760mm not only adds two new sizes, but also enhances flexibility, a must when the fixture is used in complete lighting solutions. Munkegaard now allows ceiling lighting to be tailored to any room.
The Munkegaard fixtures display a neutral idiom, only appearing as illuminated discs in the ceiling. Thus, they do not steal attention from the room, but rather underpin the interiors they adorn.

*** AJ Cirkul (US)***

Munkegaard Micro

micro · micro · micro · micro · micro · micro · micro

AH System enlarged

The AH System now offers even more options for variation in ceiling illumination.
When Louis Poulsen Lighting and designer Alfred Homann launched the AH System in 2001, they added completely new dimensions to the concept of downlights.
The AH System introduced the idea of Light Distribution Parts (LDP), light distribution elements of glass or metal with a range of different features used to control light.

The series adds the AH System Micro, a new fixture designed to hold an LDP element with an inspiring effect. The fixture centre emits direct downlight, while a white opal circular glass ring conveys the diffuse light the fixture also emits. AH System Micro was designed to prevent glare, and the fixture lends comfortable soft illumination to a room.

芸術

BY SHINYA TAKAGI

Light, lightness and transparency

Tsuruoka Art Forum

A new museum on the north-west coast of Honshu fuses a fixed concept with flexible exhibition space. Although the serenity of the architecture is firmly rooted historically and artistically in the region's samurai culture, the building still manages to reflect the modern local community.

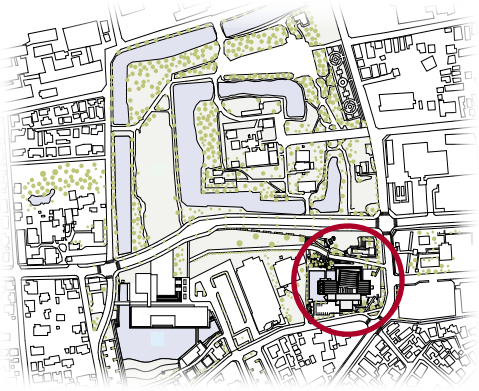
The eagerly anticipated Art Forum has opened in Tsuruoka, in the Tohoku Region near the Sea of Japan. It is the city's first municipal museum of art, and it occupies a site in Castle Park what used to be the former Tsuruoka Castle's moat, evoking memories of the days when this was a flourishing castle town.

Crossing the threshold at the main entrance, you are taken into a passageway with an eight-metre high ceiling and a gallery replete with diffuse white light. The passageway guides visitors around the central exhibition space via a number of exquisite spatial experiences. The influx of light is controlled by the façade. The upper part of the glass façade is laminated with a translucent film that produces a softer light close to the ceiling. The bottom part of the glass façade is transparent, providing a clear view of the lawns and trees that line the paths outside the museum.

Its axis slightly out of kilter with the east–west orientation of the hallway, the 24 x 24 m main gallery occupies the centre of the museum. Partition walls suspended from ceiling rails slide horizontally in three directions, dividing the space flexibly according to the nature of the exhibition. The gallery has no columns but a number of doorways on three sides, allowing the main area to be combined with the hallway and the forum in a variety of different layouts and host a range of community art activities. Flexibility is one of the Tsuruoka Art Forum's finest features, and according to the curator, Takayuki Nasu, the building does not cause the same sense of confinement common in more conventional exhibition spaces with a fixed route. This liberating atmosphere also inspires fresh creative perspectives among visiting artists.

The town of Tsuruoka was built by samurai warriors. During the Edo period (1603–1867), samurai established what were known as hanko schools in each feudal domain in order to educate the off-

Photo: Tetsuo Ishii, SS Tokyo



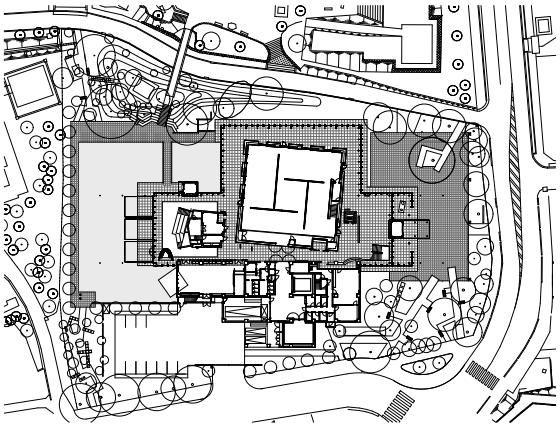
Tsuruoka Art Forum has large glass façades that make it easy to see what is going on inside the building. Openness towards the local community is, in fact, the dominant idea behind the museum.

spring of the warrior class. These institutions went on to undertake a wide range of artistic and cultural activities, a tradition that persisted beyond the beginning of the Meiji period in 1868. Tsuruoka's artistic community has always been active in a range of media, including painting and calligraphy, yet the city lacked a public museum of art until recently. It was not until the late 1990s that a plan supported by local groups of artists progressed beyond the drawing board. The result is the Tsuruoka Art Forum, completed in March 2005. The phrase 'museum of art' was carefully avoided because the planners had a clear vision. It was not simply to be an institution in which to collect, preserve and exhibit art. They wanted to showcase the artistic activities of the community in a vibrant exhibition space. The end product is a natural extension of the clarity of their vision, with Akira Ozawa's design reflecting the community perspective.

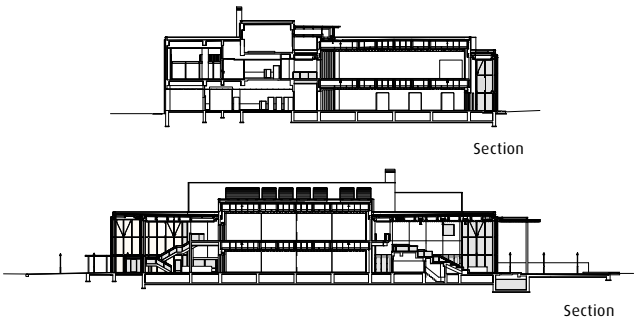
The architect wanted to create a place where people and art would meet and people could express themselves. His first step was to plan a lay-

Opalised glass has been used at the entrance to provide diffuse light to the eight storey high hallway.

The object placed by the entrance to the Museum is created by the Japanese artist Kazuko Fujie.



Plan



Section

Section

out featuring a central gallery surrounded by passageways. Ozawa noted that modern museums tend to adopt a very similar layout designed to facilitate viewing exhibits – usually a central courtyard with exhibition spaces arranged in a circle around the perimeter, like a string of pearls. This layout allows visitors to view exhibits while touring the museum, without having to double back. Naturally, it's essential to have walls on which to hang paintings, so in the 'string-of-pearls' layout, works of art tend to be on the outermost interior walls, closing the exhibition space off to the outside world. Ozawa reversed the concept, with a box-shaped gallery in the centre, not a courtyard. Several openings are cut into the gallery walls and it is encircled by an open passageway with glass outer walls. Visitors are offered glimpses of the exhibition spaces as they progress around the adjoining passageway. This spatial structure, highly open to the community, is uniquely designed to foster chance encounters between people and art.

The passageway plays a crucial role in connecting the central gallery and the exterior. It is designed as a street, with 'streetlights' evenly spaced along its length, and only transparent planes of glass separate the interior from the park outside. As a result, walking along the passageway feels like a walk in the castle park, it feels like an oasis for the citizens of Tsuruoka. The passageway offers views of several of the town's symbolic landmarks – including numerous historic sites and the ruins of the old castle, as well as buildings such as the Chidokan Museum (the former hanko school), the Taihokan Museum, and the remains of a yagura (turret) tower. After enjoying an exhibition of modern art, visitors are able to reconnect with the history, culture, and environment of the city simply by stepping out into the passageway – a special place where art, everyday life and local history merge.

The streetlights in the passageway are from the 'Toldbod' series by Louis Poulsen Lighting. Simple in shape, free of superfluous detail, they enhance the sense of airy space during the day and cast light on the floor at night, when the opal glass walls of the façade and passageway transform the entire building into a giant andon (a traditional paper-covered Japanese lantern). Radiat-

芸術

Forum Hall looks out onto an artificial lake – paying homage to a moat once found there. The Toldbod outdoor fixture has been installed along the banks of the lake.

芸術

The building is more transparent in the evening, when Tsuruoka Art Forum lights up like a gigantic andon.

The passage-way around the building faces on to reflecting water.

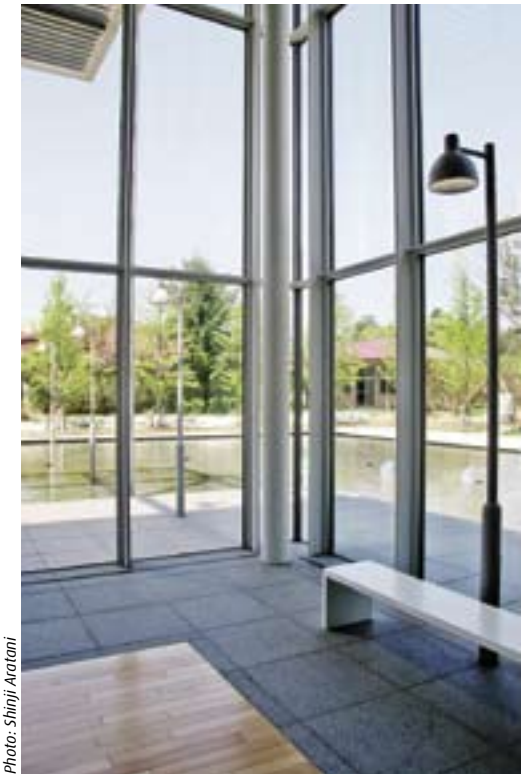


Photo: Shinji Aratani

The super-sized stairs are used as seating when performances are staged in the big Forum Hall.

With its low-key, unpretentious design and shaded downlight, the Toldbod lamp is an ideal match to the precise architecture.

The main, central gallery is on two levels. No daylight penetrates the upper level, which is well-suited to light-sensitive exhibitions.

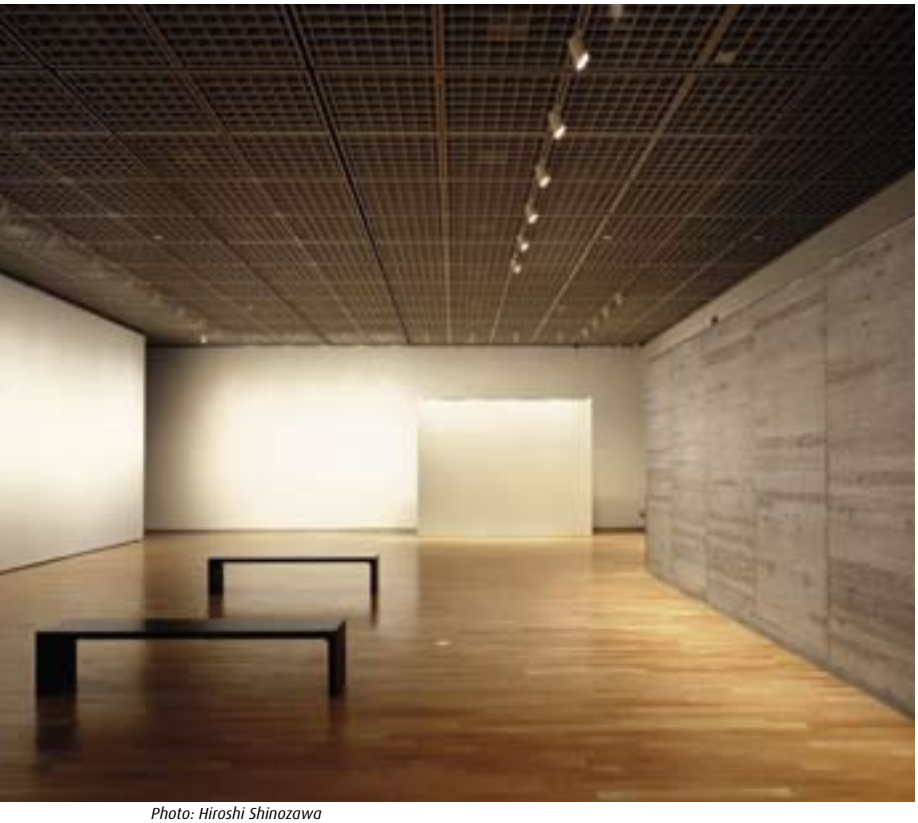


Photo: Hiroshi Shinozawa

ing a warm white light, the building serves as a beacon to the city.

Why does a walk along this eight-metre-high passageway feel so convivial? The secret lies in the modular construction of the space. The basic unit – the window sash – measures 1,350 by 2,700 mm, and is repeated to form the outer walls. In a quest for visual continuity between the interior and the exterior, or to accentuate a vast internal spa and minimise awareness of the walls, architects often opt for the largest possible single sheet of glass for outer walls. The high-ceilinged, spacious passageway in the Tsuruoka Art Forum uses human-scale modular proportions to achieve a certain affinity between user and architecture.

The outer walls use 70-mm-wide mullions, and the dimensions of the columns have been minimised to enhance visual continuity with the garden. In fact, the columns are too narrow to serve as supports, especially given the earthquake threat in Japan. The building's strength comes from the inner gallery, the outer edges of which comprise an extremely solid box composed of numerous 550 x 600-mm columns – a structure designed to bear the shock of earthquakes. Another structural detail of note is that the gallery has a 25-metre span but no columns, so some of the ceiling beams are a metre thick.

The building materials were meticulously selected. For example, high-transparency glass was laminated with an opal film to reduce the greenish tint and generate whiter ambient light. Twin sheets of low-emission glass were also used for all outer walls due to the environmental benefits of energy conservation. The Japanese oribe tiles on the gallery walls are made of special, high-purity porcelain. The beautiful, vivid colours of these tiles come not from the glaze, but from the colouration of the porcelain itself. The white tiles are whiter than the winter snow and the blue tiles suggest a warm spring sky. They are designed to lift people's spirits, even during the dark snows of winter.

Shinya Takagi is an architectural critic.

TSURUOKA ART FORUM
CLIENT: TSURUOKA CITY
ARCHITECT: AKIRA OZAWA, OZAWA ATELIER
ENGINEER: NORIAKI HANAWA, HANAWA STRUCTURAL DESIGN
ELECTRICAL CONSULTANTS: TSUGUO ENDO, HIROSHI WAKAMATSU, SOGO CONSULTANTS
LANDSCAPE ARCHITECT: YOJI INOUE

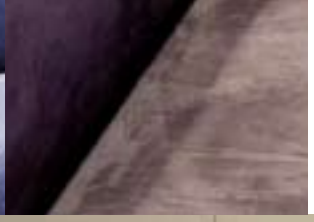


Photo: Anders Sune Berg

HAMMEL

Simple methods, major impact

BY IDA PRÆSTEGAARD

A beautiful floating sculpture graces Hammel Town Hall council chamber's flawless new interior, thanks to interior designer Susanne Christophersen and textile and visual artist Nina Hart, who were commissioned to transform the chamber into an efficient contemporary space.

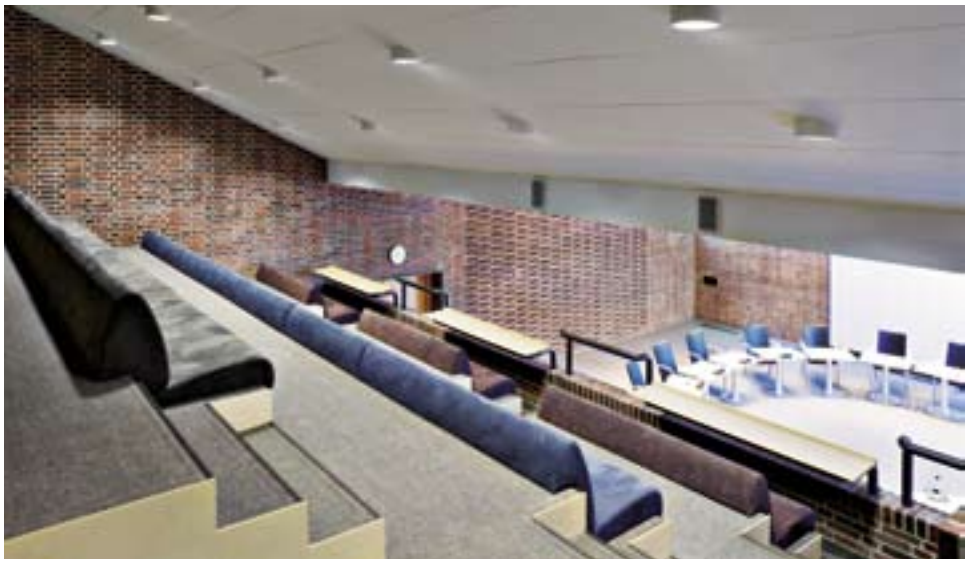
Reddish-brown brick and pine dominate Hammel Town Hall, a typical 1970s building one hour's drive from Århus. Until recently, its dark council chamber was an unsatisfactory venue for the many functions held there - council meetings, weddings, receptions, elections, seminars and other meetings.

The Danish Arts Foundation was consulted about the problem, and quickly agreed to help fund an integrated solution that included all aspects of the space. Christophersen and Hart were asked to take on the task together.

It was not easy. Radical ideas were discouraged from the start, as the council chamber clearly couldn't become an alien element in the town hall as a whole. Aesthetically, the mission was to find and highlight the existing qualities of the hall, and add elements that would update it. Above all, there was great

The light sculpture is formed by two elliptical rings and one circular ring, in dark anodized aluminium with halogen spots.

A 30m² screen interrupts the wall's dark surface and acts as a light reflector.



Above the spectators' benches are white, light-reflecting acoustic panels. Downlights, supplied by Louis Poulsen Lighting, provide the general lighting in this part of the chamber.

focus on the fact that it had to be flexible.
The pair have succeeded admirably. Simple methods that have major impact have transformed the previously heavy, dark chamber into a beautiful room of extreme comfort.

Being angular, the room called out for curved shapes as a unifying element. Christophersen and Hart designed a light sculpture and developed it together with Louis Poulsen Lighting. Two elliptic rings and one circular ring are positioned above one another, 20 cm apart, with the smaller ellipsis diagonal to the room. The two ellipses and the circle – all in dark anodized aluminium with a u-profile of 80 x 60 mm – have halogen spots with varying degrees of light emission. Each ring can be turned off separately and each has a dimmer function. This allows the sculpture to cover every conceivable lighting need and layout of tables. The sculpture acts as both art and functional light-source.

Another notable new element is the 30 m² screen, 6-8 cm from the wall, which is used as both light reflector and traditional screen for presentations and training. The large, bright surface breaks the monotony of the brick walls and emphasises the height of the ceiling. Christophersen and Hart wanted to tone down the severe ceiling construction. To this end, white acoustic panels were placed under the ceiling beams, making the chamber look quieter and brighter, and creating a uniform background for

The new sofa-style spectator seats are upholstered with material in three colours, which capture the shades of the brick walls.

Before

The chamber was once dominated by a visible ceiling construction in pine, heavy furniture and a green colour scheme.

the light's reflections. The old, heavy furniture has been replaced by height-adjustable, single-person tables in white-stained birch, and light leather upholstered chairs with steel legs and birch backs stained white to match the tables. With the sculpture providing the lighting and a wireless sound system installed, the space is ideal for any function the council chamber needs to accommodate. The new features are complemented with the use of a subtle, highly refined colour scheme for the textiles. The carpets are flat-woven in black and natural wool, goat and horse hair. On the spectators' benches, sofa-style seats have been installed, fashioned from moulded foam and upholstered with material in three colours that elegantly capture the reddish and blue shades of the brick walls.

Hammel Town Hall now boasts a council chamber that works well, one that is beautiful and contemporary but at the same time acknowledges its relationship with the rest of the town hall.

COUNCIL CHAMBER IN HAMMEL TOWN HALL
INTERIOR: SUSANNE CHRISTOPHERSEN, INTERIOR ARCHITECT MDD, BLÅTÅRN K/S AND NINA HART, TEXTILE ARTIST
LIGHT SCULPTURE: NINA HART AND SUSANNE CHRISTOPHERSEN, PRODUCED BY LOUIS POULSEN LIGHTING
FURNITURE: INNO, PAUSTIAN AND THORSEN FURNITURE.
CARPET: RUCKSTUHL, SCHWEIZ

Foto: John Edward Linden

Like the Santa Monica area itself, the library is not built to monumental proportions and merges beautifully with the low silhouette of the street.

User centered

Moore Ruble Yudell has designed a new library in Santa Monica. The relaxed interior decor and wide range of facilities cry out to be used by the local community.

BY CLAY PENDERGRAST

Public libraries have succeeded art museums and concert halls as the latest building types to be sought after and designed by prominent architects. In Phoenix, Seattle, Las Vegas and, most recently, Santa Monica, California, the new libraries are architectural landmarks that reflect their unique municipal cultures and contexts, and address the new ways in which public libraries are utilized for research and enjoyment.

Designed by Moore Ruble Yudell (MRY), Architects & Planners, recipients of the prestigious 2006 AIA Architecture Firm Award, the new 104,000-square-foot Santa Monica Main Public Library is the latest architectural gem in the real-estate crown of downtown Santa Monica, an affluent ocean-side community in Los Angeles. Located seven blocks from the Pacific, the library's compound of structures with shed roofs resembles the crisp cardboard-model aesthetic immortalized by MRY's co-founder, the late Charles Moore, in his classic housing development at Sea Ranch, California. In addition to the traditional bookstack, reading and circulation functions, the new building complex includes a café, a bookstore, the Martin Luther King Auditorium, and the Santa Monica Historical Society Museum. The museum also offers 150 computer stations, including 50 internet terminals, an online catalogue, databases and web resources, and holds instructional classes in its computer-training room. By the library's first anniversary in April 2007,

Foto: John Edward Linden

Foto: John Edward Linden

Foto: Kenneth Noversen Photography

The building is organised around an atrium with a lush garden, which encourages visitors to read, study and grab a bite to eat outdoors. The Terminal outdoor fixture provides the lighting.

one million patrons will have visited, a ringing endorsement of success.

Like Santa Monica itself, the distinctly un-monumental library gives an overall impression that is casual, welcoming and fun. John Ruble, FAIA , Partner-in-Charge of MRY, explains their design concept:
'We like to think that this new library celebrates all the best qualities of Santa Monica – its climate, its ideal scale of community, and the city's progressive concern for sustainable building and planning. More than just a building, it is truly a place of civic and cultural value, created by and for the people who use it.'
The two-storey library is well integrated into Santa Monica's low-rise skyline. The building is clad in smooth concrete panels with textured 'shingle' accent panels reminiscent of the area's charming early 20th-century homes. Thin, vertical, serrated accent panels recall the trunks of the area's ubiquitous palm trees. The crenellated plane changes in the building's perimeter are emphasized in bright colors of goldenrod, cerulean, khaki and tomato red. The library's front fenestration is modulated like a Mondrian billboard, with aluminum mullions and sunshades. All of these elements enliven the cityscape and contribute to the playful character of the building.
The library takes full advantage of Santa Monica's spectacular climate and plentiful sunshine. The building is or-

LIBRARY

The two-storey reading room gets plenty of daylight from the large glass façade. When darkness falls, the LP Centrum takes over.

A multi-functional hall (the Martin Luther King Auditorium) is one of the many features citizens are able to enjoy in the new library. The lighting is provided by the PH 6½-6 (PH 6 Maxi).

A beautiful interior concrete staircase, illuminated by PH Snowball, intersects the atrium and connects the library's two floors.

ganized around an atrium with a succulent garden and an arc-shaped pond designed by landscape architect Pamela Burton. The atrium encourages visitors to read, study, reflect and snack outdoors, and provides an ideal venue for evening civic events and parties.

The interior design promotes focused concentration with its pristine palette of white walls and ceilings, and raw concrete columns, balanced by warm, light-maple furnishings. Vivid color is mostly confined to the floor, with the exception of certain accent walls designed to ease navigation. On the first floor, visitors are directed via 'paseos', or interior streets, to major activity centers such as the Children's Library, the Teen Lounge and the Grand Reading Room. Primarily devoted to casual study and reading for pleasure, the two-storey reading room enjoys sunlight and urban views via the Mondrian wall and is lit by PH Louvre pendants in the evening.

A magnificent concrete interior/exterior stair, bisected by the atrium's south wall and lit by a series of PH Snowball pendants, connects the library's two floors. The second floor is devoted to more focused concentration for research, and includes reference services, non-fiction, and world languages collections, in addition to study rooms, computer terminals, a computer-training room and community meeting rooms.

The library's design also exemplifies its emphasis on health, sustainability and resource conservation. Awarded a LEED Gold rating, elements of the library's energy-efficient and environmentally responsible design include its redeveloped site, under-floor air conditioning, an energy-efficient roof and underground parking. Renewable energy is generated by the building's solar-electric roof panels. The building's water-conservation system is exemplified by the library's 200,000 gallon underground cistern, which captures rainwater runoff in order to irrigate the atrium and the perimeter's landscaped areas. Finally, more than 50 percent of the library's construction materials incorporate a significant amount of recycled content.

Library Lighting

While the dominant reading function of libraries has historically made lighting design and selection critical, the new Santa Monica Main Public Library presents exceptionally complex lighting challenges. These challenges include the extensive use of computers, wayfinding, the incorporation of exterior space for evening activities, and an interior and exterior lighting aesthetic suitable for a municipal landmark. The library's lighting design is successful because it provides appropriate lighting fixtures for a wide variety of reading and functional areas, while retaining a unified and cohesive overall impression. For instance, the stacks are illuminated by linear pendants that are primarily direct, the tables in the Grand Reading Room have domestic-scale lamps and glowing opalescent glass shades, and the computer-research and training areas have linear, direct and indirect pendants, as well as baffled, recessed downlights.

Louis Poulsen light fixtures reinforce the Main Library's aesthetic character – classic modernity based upon function – and are used primarily for ambient lighting and to define important pathways and activity centers, such as the circulation desk area, the stair, the atrium, the auditorium and the Grand Reading Room.

SANTA MONICA MAIN PUBLIC LIBRARY
CLIENT: SANTA MONICA MAIN PUBLIC LIBRARY
ARCHITECT: MOORE RUBLE YUDELL ARCHITECTS & PLANNERS
LIGHTING DESIGNER: PATRICK B. QUIGLEY & ASSOCIATES
LANDSCAPE ARCHITECT: PAMELA BURTON & COMPANY
ENGINEER: SYSKA & HENNESSY, INC.
INTERIOR DESIGN: CNI DESIGN

nordic la+titudes

BY CLAY PENDERGRAST

Photo: Jim Simmons

Scandinavian design exhibition in LA

Early this year, the new library in Santa Monica hosted an exhibition paying homage to modern Scandinavian lamps and furniture and to the impact they have made.

The simple, warm modernity of the new Santa Monica Main Public Library proved to be the ideal venue for its first exhibition, Nordic la+titudes, which took place during February and most of March of this year. Conceived and designed by Haekwan Park and organized by Moore Rubel Yudell in partnership with Louis Poulsen Lighting, the exhibition celebrates the international influence of modern Scandinavian furniture and lighting. An entrepreneurial effort, consisting of a consortium of furniture and lighting companies whose collections include classic Danish pieces, assisted MRY with fundraising and donated furnishings to the exhibition. Many Danish corporations with offices in Los Angeles were generous contributors, and MRY also produced the handsome graphic ad campaign.

As part of the la+titudes exhibition, the Santa Monica library hosted a series of lectures. Speakers included Professor Erik Steffensen from Copenhagen and architect Michael Sheridan, New York. The reception to mark the opening of the exhibition attracted a crowd of 700. Top: Anne Frederiksen of Louis Poulsen Lighting and Stig Stenhøj, Honorary Danish Consul in Los Angeles.
Bottom: Haekwan Park, curator of la+titudes and John Ruble, partner in charge of Moore Ruble Yudell.

Nordic la+titudes showcased classic masterpieces by such titans as Aalto, Saarinen, Jacobsen, Kjærholm, Panton, Wegner, Christiansen and Henningsen, as well as more contemporary works by Louise Campbell. Located next to the grand staircase, the exhibition's wood and gypsum board structure, whose folded planes were painted white and tomato red, cleverly displayed a surprising number of sculptural pieces without seeming cramped, despite the small area. There was even space for two plasma screens, playing a vintage interview with the late Poul Kjærholm and a film in which Louise Campbell describes how nature inspires her lighting designs.

The exhibition received an enthusiastic reception, underlining the power of the Santa Monica Main Public Library to inspire creativity and encourage community participation.

Photo: Jens Lindhe

Thorvaldsen's Museum in Copenhagen

Light endows sculptures with life

Thorvaldsen's Museum, one of the most spectacular buildings in Copenhagen and well worth a visit, houses Bertel Thorvaldsen's unique collection of marble sculptures and plaster casts from the early 19th century. The architect, Michael Gottlieb Bindesbøll, used daylight as a fundamental building material when he designed the building in the 1840s.

BY PETER THULE KRISTENSEN

An eye-catching building is located in the heart of Copenhagen, the capital of Denmark. It stands out from the rest of the structures not due to its size or position, but because of its colorful façades, fine relief effects and murals, all giving the building the appearance of a precious jewellery box. Among other things, the paintings depict a number of statues advertising the building's contents: the Danish sculptor Bertel Thorvaldsen's (1770–1844) major collection of his own marble sculptures and plaster casts.

Originally created in his studios in Rome, the statues received international acclaim in the early 19th century because of their idealized re-interpretation of antiquity. Thorvaldsen later donated all of the sculptures, along with his private collection of paintings and ancient handicrafts to his native city of Copenhagen, which in return built a museum to display them to the public.[1]

Daylight is a particularly central element in sculpture. It highlights contours and makes marble or plaster seem alive. Depending on the weather, time of day, and season, a statue can appear to emit an unearthly glow, or it can live a shadowy existence, fading away in the twilight.

This article will show Danish architect Michael Gottlieb Bindesbøll's (1800–1856) consciousness of the crucial importance of daylight when he designed

Bindesbøll was not alone in displaying an interest in color when he decided that Thorvaldsen's Museum should be painted in bright yellow. During the mid-19th century, antiquity's extensive use of color in architecture and sculpture had been rediscovered, partly as a result of the excavations of the ruined Roman town of Pompeii. The motif for the painted external frieze on Thorvaldsen's Museum can also be traced back to antiquity.

Thorvaldsen's museum in the 1840s. By employing daylight as a crucial artistic device and building material, it becomes a variable factor acting upon both the sculptures and the architecture. The short time available to the observer, the longevity of the sculptures and the building, and the vast, cosmic time scale of the Sun are all brought together in a single, magical moment when the sunbeam strikes the statue's shoulder and the back wall. Time apparently stands still allowing one to feel as though one is witness to something significant.

It would have been said during the period of 19th century romanticism (a major influence on Bindesbøll's work) that there was a special atmosphere in the room. The expression 'atmosphere' is used in the Germanic world when a landscape, building or sculpture appears endowed with some form of spirit. The observer senses a special atmosphere and, for a moment, steps out of daily life's familiar time and space. When one leaves the noisy capital city and steps into Thorvaldsen's Museum, one is gradually and imperceptibly drawn into another world. This sensation becomes stronger with repeated visits, during which new and surprising facets consistently reveal themselves. Romanticism also associated atmosphere with natural phenomena, such as a crooked tree, a cliff face or, in the case of Thorvaldsen's Museum, daylight. With consummate skill, Bindesbøll 'weaves' light into the structure of the museum, the colored surfaces and the sculptures on exhibit. The changeable daylight, the sculptures and the rooms they inhabit are therefore carefully attuned to each other.[2]

Architecture

To understand the special role daylight plays in the museum, it is appropriate first to contemplate the architecture in a broader context, taking into consideration sources of inspiration, colors and the sequence of rooms. At face value, it is difficult to grasp that the museum is simply a refurbishment of a former coach yard, which the Danish king Frederik VI placed at the disposal of the museum in 1839. Denmark was left impoverished following the Napoleonic Wars and declared national bankruptcy in 1813, so it was important at this time to recycle as much as possible.

In relation to this, Bindesbøll's museum ushers in a new era. Hansen's architecture, with its simple, grey-plaster surfaces and Spartan ornamentation, recalls French 'revolutionary architecture', and in a Danish context, represents the final stages of the Enlightened Absolutism. Bindesbøll's museum also alludes to a classicist idiom, but the influence is fragmented, divided into a mass of small details that span the entire façade, like fine wickerwork. This is late classicism, reminiscent of the Prussian architect Karl Friedrich Schinkel's (1781–1841) work. Thorvaldsen's Museum has many features in common with Schinkel's Altes Museum in Berlin (1824–30) including a fine relief effect, big corner pilasters and colorful outdoor murals that reflect the building's content.

Bindesbøll was not alone in displaying an interest in color during the mid-19th century. At the time, antiquity's extensive use of color in architecture and sculpture had been rediscovered, partly as a result of the excavations of the ruined Roman town of Pompeii. The motif for the painted external frieze on Thorvaldsen's Museum (by J. V. Sonne 1801–90), can also be traced back to ancient times, for example, to the friezes around the cella on Greek temples. However, Sonne's frieze distinguishes itself from those and from the majority of contemporary friezes by not depicting people in ancient robes, but rather the citizens and workers of Copenhagen in modern dress. This created a stir in Copenhagen at the time and was interpreted as a symbol of the new democracy introduced with the 1849 constitution.

Another feature Thorvaldsen's Museum has in common with Altes Museum is the way the sequence of rooms on the floor plan is co-ordinated. It may well be arranged around a central room but the visitor experiences it as a memorable series of small, independent units or sequences. One does not therefore, obtain the feeling that the architecture culminates in a single room, to which all the other rooms lead as is often the case in, for example, baroque architecture.

This lends a modern touch to the museum floor plan and harmonizes exquisitely with the regular divisions that characterized buildings used for a particular purpose, such as the original coach yard. Bindesbøll was thus able to recycle most of the walls, adding only a large, elongated vestibule towards the south-west and a smaller hall in the opposite end of the building (Christ's Hall). An open yard with Thorvaldsen's grave in the middle, the corridors around it, and two long rows of small exhibition rooms, called 'berths' or 'stanzas', in each side of the building, recycle the original exterior walls and retain the rhythm of the old doors and windows. In addition, Bindesbøll changed the heights of the floors and the size of the light apertures primarily for the sake of the lighting.

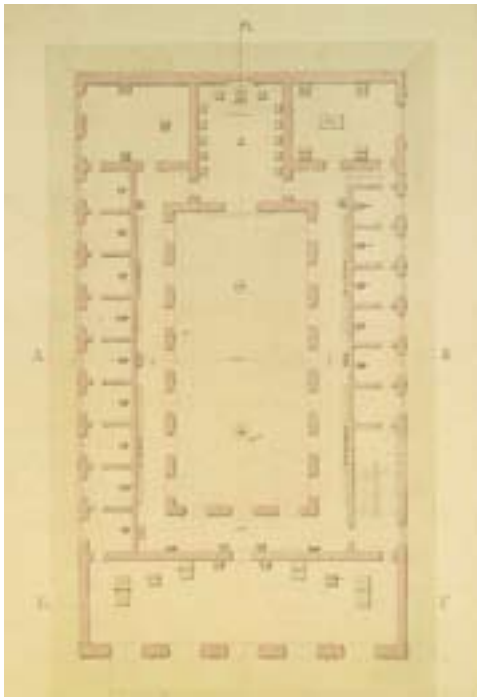
The light and the surroundings

Seen from the outside, Thorvaldsen's Museum appears at first glance to be symmetrical. Closer inspection reveals however, that Bindesbøll differentiated the light apertures in such a way that none of the façades are absolutely identical. In this way, he makes allowances for the four corners of the Earth and for the surrounding skyline, without the observer actually noticing it.

The main façade faces south-west onto an open square where Bindesbøll placed his new vestibule. It is marked by five large gates with slightly slanting sides (an Egyptian and later classically antique motif, also found in Schinkel's architecture). The frame around the gates continues all the way to the cornice, but is subsequently divided into tall double doors below and a large glass panel above. One acquires a sense that there is a handsome space on the other side, a room particularly well endowed with daylight in the afternoon and evening sun. The double doors and glass panels have been retracted some considerable way from the outer frame, resulting in a strong shadow effect in comparison with the other façades. The

Left: In Thorvaldsen's Museum, Bindesbøll employs daylight as a crucial artistic device and building material and it becomes a variable factor acting upon both the sculptures and the architecture.

Daylight is a particularly central element in sculpture at Thorvaldsen's Museum. It highlights contours and makes marble or plaster seem alive, depending on the weather, time of day, and season. A statue can appear to emit an unearthly glow, or it can live a shadowy existance, fading away in twilight.



resultant effect is that the five gates resemble a prominent sign. Despite the building's otherwise low height, one is left with no doubt that this is the entrance to an important building.

At first glance, the two façades look identical. The relief effect is more subtle and a horizontal cornice separating the two floors divides the façade. The ground-floor window frames, like the front of the entrance, are divided up into two sections: an excerpt from Sonne's painted frieze at the bottom, and a window placed high above. The fine relief effect means that the subtleties of the murals are not obscured by deep shadow.

As a response to lighting conditions, the bottom windows on the north-west façade facing Slotsholm Canal, are larger and lower positioned than on the corresponding south-east façade, opposite Christiansborg Palace. The north light is weaker, requiring larger apertures, while the southern side benefits from more powerful light. In addition, Christiansborg Palace casts a shadow over much of the south-east façade, and therefore, Bindesbøll decided to raise the windows.

The rear, towards the north-east, faces a small alley behind C. F. Hansen's Palace Chapel and is the darkest of all the façades. Bindesbøll abandoned any attempt to entice particularly large amounts of light in through this façade and as a result, it has only two windows of the same type as on the canal side.

Thorvaldsen's mausoleum rests in the center of the inner yard of the museum. A dark portal with double doors and windows lead from the yard to Christ's hall.

As one enters the museum, one immediately acquires a sense of how central to the architectural effect the precise and sophisticated use of daylight actually is. There are three interwoven reasons for this: the position of the light sources in relation to the sculptures, the shape of the individual light sources, and the use of color.

During the preliminary work leading up to the design of the museum, Bindesbøll and the sculptor H. E. Freund had experimented with light and sculptures in the building next door, the Palace Chapel. They came to the conclusion that a statue's head should be most strongly illuminated, and that daylight ought to penetrate from above. One of their models for this was Thorvaldsen's studios in Rome, familiar to Bindesbøll from his many years in the city. The characteristic lighting was achieved by daylight penetrating diagonally from above, with the lower light sources obscured by shutters or curtains, a method known as 'blocked light'.[3] The primary purpose of the windows was not to reveal the outside world, but rather to let the incident light focus attention on the sculptures.

The vestibule

Light enters the vestibule primarily through the five big windows, which simultaneously cut into the hall's cylinder vault, an almost baroque effect also found in, for example, the vestibule of St Peter's in Rome. The elevated windows make it possible for light to penetrate deep into the room, allowing some light to be shed on the relief frieze on the rear wall. The sculptures in the room consist of plaster models of major public monuments, including two equestrian statues. These sculptures are most brightly illuminated around the head, just as Bindesbøll preferred.

The window niches in the vestibule are painted ultramarine blue like the other walls in the building originally in fresco.[4] This helps recreate some of the Mediterranean light Bindesbøll and Thorvaldsen saw in Rome, only with a different type of paint. Even on grey days, one almost gets the feeling of a cloud-free sky outside. At the same time, the blue adds a cool glow to the warm southern light, allowing the sculptures to be bathed in both cold and warm brightness. This helps liven up the otherwise slightly dead plaster surfaces. The presence of blue acts upon the white ceiling to recall the firmament, while the dark, Mars-red walls enhance the whiteness of the statues. In addition, the particular shade of blue situated midway between white and Mars-red serves to visually bind together the ceiling and the walls. The shape of the window niches, which proclaim the transition from the vertical outer wall to the round cylinder vault, further underpins this connection.

This type of window is a strange hybrid, in relation to the neo-classical ideal, in which the individual parts of the building are preferably kept separate, geometrically divided into clearly delineated individual components. The idiom is more closely related to earlier baroque architecture, which weaves together the individual parts of the

Light enters the vestibule primarily through the five big windows, which simultaneously cut into the hall's cylinder vault, an almost baroque effect.
The sculptures in the vestibule consist of plaster models for major public monuments. Among them are two equestrian statues, which are most brightly illuminated around the head, just as Bindesbøll preferred.

building into an almost 'organic' entity. Bindesbøll's time in Rome, the capital of Baroque, was clearly not spent in vain.

Around the yard

From the vestibule, one walks down bright corridors that skirt the inner yard on three sides. Thorvaldsen's mausoleum rests in the center. Out towards the yard, the corridors display a series of double doors, the glass panes of which were originally etched with plant motifs. These made it impossible to see out into the yard except through the middle door, opposite the entrance to the vestibule. Direct light does, on the other hand, enter unhindered from the window above the doors. It strikes the upper part of the statues along the back wall, adhering to the principle of 'blocked light'. The dark Mars-red on the lower part of the outer wall helps underline the difference between the blocked light below and the direct light above. Today, the fragile, etched panes have been replaced with standard glass, losing the original effect to an extent, but now lends a direct view of the yard which, with its murals of trees and flowers, otherwise formed a secluded Garden of Eden in the middle of Copenhagen.

At the very back of the yard, the presence of Thorvaldsen's final resting place in the middle endows the museum with the character of a mausoleum. The dark middle part of the portal, with double doors and windows, repeats the black concrete sphere on which the grave plinth stands, and almost resembles the raised lid of a coffin. When the double doors are open, one can see Thorvaldsen's famous Christ statue inside, receiving visitors with outstretched arms. Here, most of the daylight enters at the top and underlines the hall's fluted cylinder vault with fine shadow; an effect that sometimes almost makes the statues flicker. This stretch, which includes the grave and culminates in Christ's Hall, endows the building with a symbolic meaning all of its own.

The berths

The corridors provide access to two rows of 'berths' or 'stanzas', each of which contains a main sculpture and a single elevated window. Bindesbøll had, as mentioned above, reached the conclusion that the heads of the statues should be most strongly illuminated. The sculptures were therefore positioned around the room in such a way that you can imagine a virtual line that starts from the head, dissects the bottom edge of the window and continues to the upper edge of any building casting shadows. As a result, the window apertures are higher on the Christiansborg side, and for the same reason the statues, which are different sizes, are mounted on pedestals of different heights and at different distances from the back wall. Retracted into the side wall are reliefs, the contours of which are illuminated from the side. In this way, the daylight strikes each individual sculpture in the best possible manner. There is, on the other hand, a great difference between the berths in the south-west side and those in the north-east, which seems the most harmonic due to its north light and slightly larger windows.

The colors, like the rest of the museum's ornamentation, were inspired by Roman-Pompeian architecture and have a significant role to play. While most of the ground floor retains the red of the walls, the berths alternate between ochre, Mars-red and, on the south side, a cold green. The element that holds it all together is the black found in the aperture of the door, in the plinth, and in the clear-cut niches, whose sill-less windows are divided by thin iron bars. As a contrast to the white, the black results in a dramatic effect that to a great extent focuses light on the sculpture and leaves the ceilings in darkness. Therefore, most of the light reaching the individually decorated ceilings is reflected from the mosaic floors.

Unfortunately, some uplights excessively illuminate the ceilings and divert focus from the sculptures. Although some form of artificial light has been deemed necessary in the dark winter months, the museum is currently working on better solutions, a task made more difficult by the fact that spots cannot be suspended from the decorated ceilings, and from any other position they would emit glare.

The first floor

Beside the entrance facing Christiansborg is a staircase. From here, one descends to the cellar, which now features themed exhibitions about Thorvaldsen, or ascends to the first floor, which contains his private collections of paintings and ancient handicrafts. Three of the

The window niches in the vestibule are painted ultramarine blue. This helps recreate some of the Mediterranean light Bindesbøll and Thorvaldsen knew from Rome. Even on grey days, one almost gets the feeling of a cloud-free sky outside. At the same time, the blue adds a cool glow to the warm southern light, allowing the sculptures to be bathed in both cold and warm brightness. This helps liven up the otherwise slightly dead plaster surfaces.

windows on the staircase are filled in, allowing Thorvaldsen's Hercules statue to gaze out of a single, lonely window from the half-landing. Outside, the fact that the windows have been filled in is camouflaged so that the rhythm in the façade and the overall symmetry of the building are not disrupted.

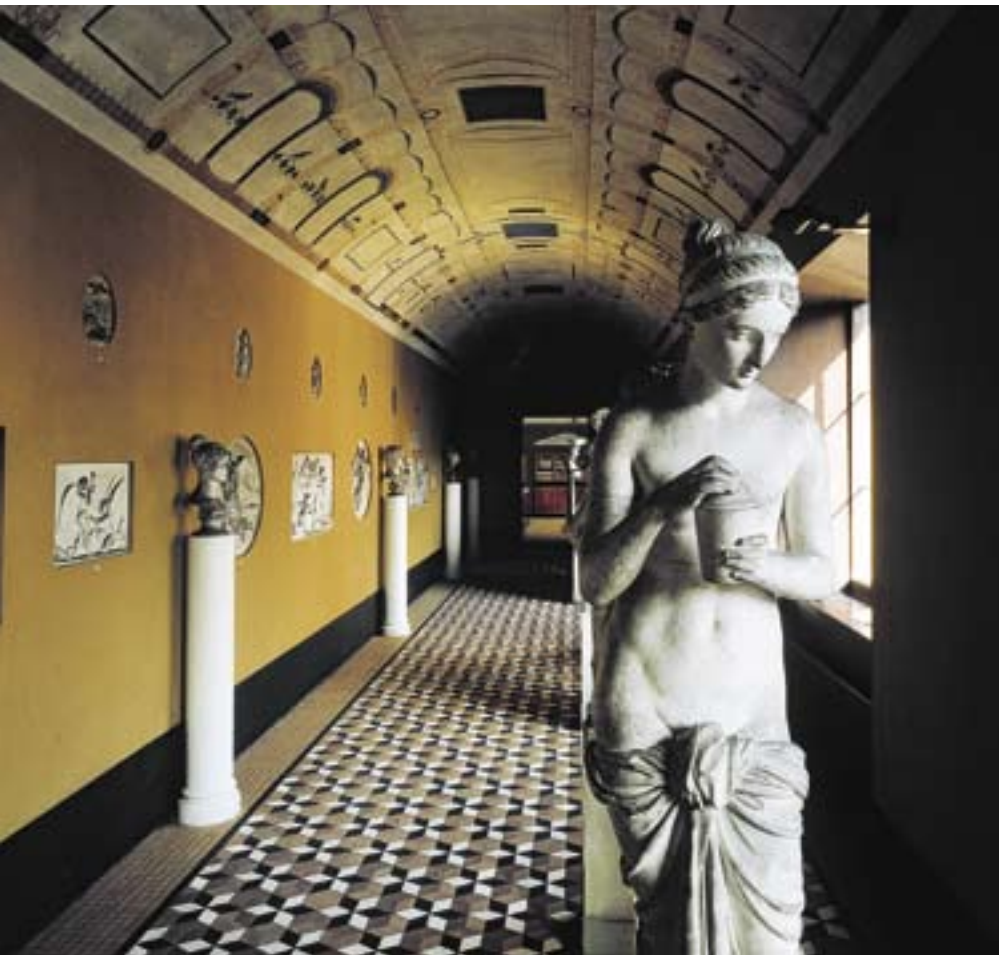
The floor plan on the first level is more or less identical to the ground floor, apart from the fact that part of it is usurped by the double-height vestibule and the cylindrical vault in Christ Hall. Nevertheless, the space on the first floor feels very different, especially as far as the light is concerned. This is due to a lower ceiling and window height, lighter colors and slightly different surfaces. Additionally, the rooms are higher up and therefore receive more daylight. For example, the corridor around the yard, with its ochre-yellow walls and almost white ceilings, seems far brighter and lighter than its equivalent on the ground floor. Just off each window niche stands two statues with their faces turned towards each other so they are struck by light from the side. According to people who frequent the museum on a daily basis, this is the best place to observe how the life of the sculptures is affected by changes in light and shadow.[6] This is probably true since Bindesbøll's contemporary, the painter Jørgen Roed, referred to this passageway as the 'Sunshine Corridor'.[7] The berths on the first floor also utilize slightly different colors than those on the ground floor and contain many of Thorvaldsen's own pieces of furniture, which gives the floor a more intimate, living-room feel. On the other hand, although sculptures respond well to the onset of dusk, the changeable daylight is less desirable in terms of illuminating paintings and small art objects.

Light and atmosphere

On the exterior, the entrance to the vestibule is marked with powerful deep shadows, while the façades with paintings utilize a more delicate relief effect. When seen from the outside, the museum appears at first glance to be balanced, but the windows are of varying sizes and heights so as to correspond to the four corners of the Earth and to the height of the surrounding buildings.

In the interior of the museum, Bindesbøll has implemented the principle of 'blocked light', which means that the sculptures' heads in particular receive direct daylight from an aperture high up in the wall, while lower openings are obscured by, for example, panes of etched glass, as originally featured in the ground floor of the yard. In the small exhibition berths, each individual statue is painstakingly positioned to respond to the lighting aperture, which, with its black window niche, allows a dramatic and projector-like light to strike the upper part of the sculpture. In this way, color, sculpture and daylight are interwoven into a complex architectural game.

It is not simply a question of the functional or neutral lighting with which we are familiar from many modern museums. The daylight in Thorvaldsen's Museum is also atmospheric to a de-



The corridor around the yard – the Sunshine Corridor – in the first floor is brighter and lighter than the equivalent on the ground floor. The statues by the window niches have their faces turned so they are struck by light from the side. This is said to be the best place to observe how the life of the sculptures is affected by changes in light and shadow.

gree rarely encountered elsewhere. A single similarly conspicuous example is the British architect John Soane's own private museum in London, dating from the early 19th century, where the architecture and the art collection interact in an equally congenial manner.

Perhaps atmosphere arises from the interplay between things that did not originally correlate. For example, this model combines a common or garden coach yard in the middle of Copenhagen, a collection of sculptures made in Rome, and Mediterranean art. This incongruity inspires the architect to decorate the rooms with Pompeian colors and patterns, and to paint the vestibule's window niches blue to suggest the presence of clear Mediterranean skies beyond. The familiar seems to give way as you find yourself in another world.

Romantic architects were aware of this. They asked the observer to react to and expand upon their architecture and to imagine their way into narratives outside of time and place and, perhaps, sense the presence of some kind of eternal dimension.[8] For many romantic artists, the conventions of figurative religious imagery, which had previously communicated such concepts, had started to seem hollow in the wake of the 18th-century Enlightenment period. They tried therefore to find new idioms, relevant to their time, which were able to inspire a similar form of spiritual experience.[9] This also explains their preoccupation with 'twisting' well-known symbols and introducing elements from nature, which might also serve to express the infinite and inexpressible.

Thorvaldsen's Museum offers many of these small dislocations. The most sacred part of the building, the inner yard where Thorvaldsen himself lies buried, is underplayed and was originally almost hidden behind the etched window panes, while the big halls and the berths, with their elevated light sources, feel somewhat like church interiors – and yet not quite.

The element that transcends time and unifies the different worlds within the museum is daylight. It is, however, also the most variable element, and as its qualities are determined by the heavens, it is slightly beyond the architect's control. It imbues the museum with an unpredictable and changeable aspect, but also stands for something constant.

When the museum no longer exists, the light alone will remain. Thorvaldsen and Bindesbøll were almost certainly aware of that.

Assistant professor Peter Thule Kristensen, MAA, PhD.

[1] More in-depth analyses of Thorvaldsen's Museum, which was opened in 1848, are found in: Bente Lange, Thorvaldsens Museum: Bygningen – farverne – lyset, Copenhagen 2002, 175 pages (English version: Thorvaldsen's Museum – Architecture – Colours - Light, Copenhagen 2002).
Torben Melander & Astrid-Louise Walther (ed.): Meddelelser fra Thorvaldsens Museum 1998, 1998, 224 pages (theme edition about the museum's architecture with several articles, including short summaries in English).
Knud Millech: "Bindesbølls Museum: Bygningens æstetiske funktion og idé samt udviklingen i forarbejderne", in: Meddelelser fra Thorvaldsens Museum 1960, 1960, pp. 7–135 (English summary).
Henrik Bramsen: Gottlieb Bindesbøll: Liv og arbejder, Copenhagen 1959, 174 pages (incl. essay in English: "The Architectural Symbolism of Gottlieb Bindesbøll").
Wilhelm Wanscher: "Gottlieb Bindesbøll 1800-1856: Der Erbauer von Thorvaldsens Museum", in: Artes – Monuments a mémoires, Tome 1, Copenhagen 1932, pp. 53–185 (main text in German).
Wilhelm Wanscher, "Arkitekten G. Bindesbøll", in: Blade af Dansk Kunst Historie IV–V, Copenhagen 1903.

[2] An important source for the survey of the light is: Eva Henschen: "Lyset i Thorvaldsens Museum", in: Meddelelser fra Thorvaldsens Museum 1998, 1998, pp. 55–67 (with short English summary: "The Light in Thorvaldsen's Museum").

[3] Cf. Eva Henschen, p. 58.

[4] Bente Lange, p. 102

[5] Cf. Gregory Bryan Kobett, "Thorvaldsens Museums ætsede ruder", in: Meddelelser fra Thorvaldsens Museum 1998, 1998, pp. 136–47 (with short English summary: "The Etched Windows in Thorvaldsen's Museum").
Cf. Eva Henschen, p. 58.

[6] Cf. Eva Henschen, p. 66.

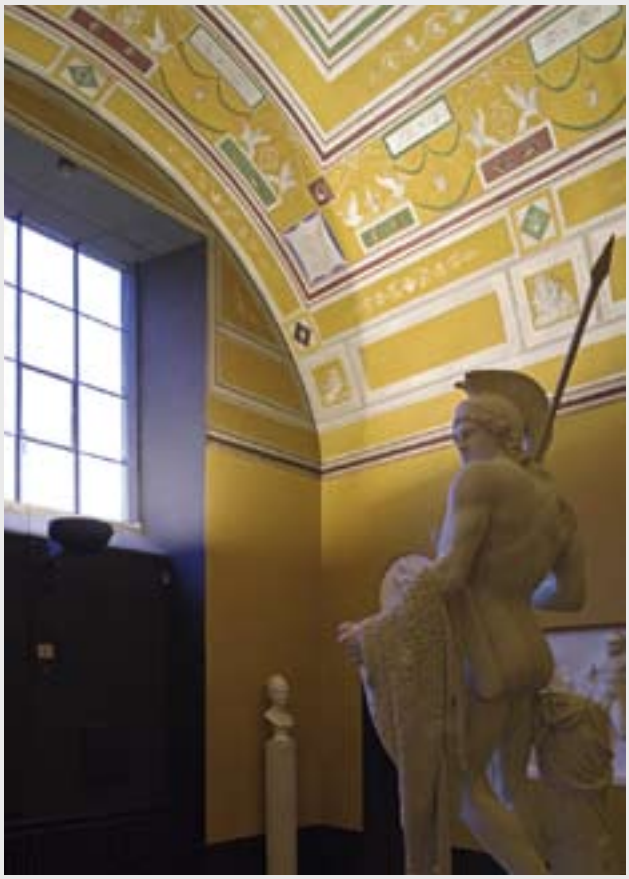
[7] Cf. letter from Jørgen Roed to M. G. Bindesbøll, 20 November 1847, in: Henrik Bramsen: Gottlieb Bindesbøll. Liv og arbejder, København 1959, p. 83.

[8] Cf. Jens Bisky, Poesie der Baukunst der Baukunst: Architekturästhetik von Winckelmann bis Boisserée, Weimar 2000. Bisky maintains that a characteristic feature of Romanticism is the emphasis on a special 'architectural poetry'. The poetic element in a building is defined in this context by the qualities that appeal to the beholder's imagination or which manage to express non-architectural contexts. A study of Romantic leitmotifs in architecture is also included in: Peter Thule Kristensen, Det sentimentalt moderne – Romantiske ledemotiver i det 20. århundredes bygningskunst, Copenhagen 2005, 178 (English and German summaries).

[9] Cf. Robert Rosenblum, Modern Painting and the Northern Romantic Tradition: Friedrich to Rohtko, New York 1975, or: Peter Thule Kristensen, Det sentimentalt moderne. Romantiske ledemotiver i det 20. århundredes bygningskunst, Copenhagen 2005, 196 pages.

Throughout the museum, one senses how central to the architectural effect the precise and sophisticated use of daylight is. Bindesbøll was convinced that a statue's head should be most strongly illuminated, and that daylight ought to penetrate from above. The effect can be studied e.g. in the dodenkop coloured hall of Christ.

DIGRESSION: ARTIFICIAL LIGHT IN THORVALDSEN'S MUSEUM



As illustrated in the picture to the left, the sculptures are ideally illuminated when adorned by daylight only. Unfortunately, the artificial light from uplights placed by the windows in the berths (see the picture to the right) cuts the room in two and diverts focus from the sculptures to the ceiling.

Originally, as Thorvaldsen's Museum was founded before the introduction of electricity, it was intended to be lit by daylight only – a feature it shares with other older museums, such as Rosenborg Castle in Copenhagen, which houses the collections of the Danish royal family. [10] With today's expectations of long museum opening hours and varied exhibitions, however, the absence of artificial light could prove problematic – not so much in the bright summer evenings as in the dark winter months, when the sun begins to set at around three in the afternoon in Denmark. While the sculptures can be viewed in subdued lighting, the collection of paintings and small works of art are not at their best in twilight. The museum uses neither showcase lighting nor spots on the pictures.

Over a number of years, Thorvaldsen's Museum has attempted to alleviate this problem by supplementing the natural light with artificial illumination, but according to museum curator William Gelius, the ideal solution has yet to be found. During renovations undertaken in the 1970s, Jørgen Bo, one of the architects of the Louisiana Museum of Modern Art in Humlebæk, designed a number of uplights for the exhibition berths, etc. The uplights in the ground floor berths are mounted on the walls beneath each window in the individual berths, and with their hemispherical forms, reminiscent of the large oil lamps of the past, they harmonize quite well with the museum's neoclassical style. Unfortunately, however, they primarily throw light on the ceilings, which especially during daylight hours are mainly illuminated via reflected light from the floors, and were not ornamented with the intention of being so clearly visible. This tends to shift the focus away from the sculptures, which in daylight, should be allowed to take centre stage. Quite contrary to the original intentions of the architect, Bindesbøll, the uplights thus divert attention from the sculptures to the ceilings. Ideally, the lighting could consist of spots, but these cannot be placed in the decorated ceiling vaults, and might easily dazzle museum guests if mounted lower down on the walls. Finding an alternative to Jørgen Bo's uplights is thus no simple matter. The current plan is to subdue the uplights slightly and perhaps provide direct supplementary lighting on the reliefs and sculptures.

In an attempt to solve these problems, the museum has allied itself with the Danish lighting designer Vagn Dyring, who has previously helped to introduce artificial lighting at Rosenborg Castle. As a possible solution model, a current-carrying rail will be installed in the entrance hall between the five archway apertures, just beneath the cylinder vault. From here, a bank of spots will illuminate the sculptures on the opposite rear wall from an angle that will not produce glare.

It is, however, doubtful whether artificial lighting can provide the same sense of changeability, or suggest a dimension of eternity, in the way that daylight can. At best, the artificial light should thus be used as a supplement to reinforce the stories and intentions expressed by the original daylight-based illumination. This means, for example, that the artificial light should only be utilised when daylight is no longer adequate, and that the focus must remain on the museum's real content: the sculptures.

[10] Ida Præstegaard: "As if the king had just left..", in NYT 572, 2002.

INSTRUCTIONS

• Read the article "Light endows sculpture with life" using the learning objectives provided
• Complete the the questions below, then fill in your answers (this page).
• Fill out and submit the AIA/CES education reporting form (last page).

LIGHT AND ATMOSPHERE IN THORVALDSEN'S MUSEUM

Learning objectives

1. After having read this article, the learner should be able to:
a. Discuss how to use daylight as an artistic device and building material especially when exhibit ing marble and plaster sculptures
b. Describe how colors can be used as an artistic means when creating space
c. Understand the various elements of romantic architecture

QUESTIONS:

1) What effect does the daylight have on Bertel Thorvaldsen's sculptures?
a) it endows the sculptures with a changeable idiom
b) it makes the sculptures always look the same
c) it makes the marble lighter with time

2) What inspired the architect M. G. Bindesbøll's choice of color scheme for the museum?
a) the Scandinavian Viking era
b) polychrome Russian Orthodox Church architecture
c) Pompeian architecture

3) The window apertures on the long sides of the museum are at different heights. Why?
a) because of the shadows from surrounding buildings
b) because the room height is different on the two sides
c) because of special fire precautions

4) What epitomises M. G. Bindesbøll's use of daylight in relation to the museum's statues?
a) the daylight is concentrated on the bottom of the statues
b) the daylight is most intense in the middle of the statues
c) the daylight enters from above and is concentrated on the top part of the sculptures

5) What is meant by the concept of "blocked light"?
a) direct daylight is prevented from entering apertures low down in the walls
b) daylight is eliminated completely in favor of artificial lighting
c) statues are primarily illuminated from behind so they look like silhouettes

6) Light apertures have been inserted high up in the cylinder vault in the vestibule. What color have the openings around them been painted?
a) Mars red
b) black
c) ultramarine

7) A number of double doors open out onto the inner yard. They were originally endowed with a conspicuous effect that is no longer present. What was it?
a) the panes of glass were etched with plant motifs
b) you could not see out into the yard because there was no glass in the doors
c) the glass in the doors was dyed different colors

8) The window niches on the ground-floor berths are painted black. What effect does this have on the daylight entering the room?
a) the daylight is spread evenly throughout the room
b) the daylight is dramatic and has a projector effect
c) the daylight is reflected, in particular onto the ceilings

9) What differentiates the lighting conditions on the first floor from those on the ground floor?
a) lower windows and room height
b) larger windows
c) the insertion of skylights into the roof

10) According to the article, what characterises Romantic art?
a) the rejection of a figurative language laden with meaning
b) a desire to communicate a spiritual dimension through new idioms
c) conventional use of religious imagery

The Wohlert Pendant has been in production since 1958. The simple pendant, designed by the architect Vilhelm Wohlert, is made of hand-blown white opalised glass.

Louis Poulsen Lighting Asia Pacific Ltd.

Theme in ***black*** *and white*

Space in Singapore

The exclusive retail outlet, Space, has opened a new showroom in Singapore. The interior decoration on display includes products by Louis Poulsen Lighting and Poliform.

BY SUNE KRISTENSEN
& OLE W. RAUBERG

As part of its market strategy, Louis Poulsen Lighting has chosen to prioritise South-East Asia for future growth, with the focus on contract sales and new retail outlets. Louis Poulsen Lighting Asia Pacific Ltd – the company's name in this part of the world – has carefully selected strategic partners who have a professional and innovative attitude to business.

Through partnerships with retailers in South-East Asia, such as *Space* in Singapore, Louis Poulsen Lighting aims to create strong brand awareness and be the preferred choice for both professional and private end-users.

On 18 January 2007, *Space* expanded its select 2000 m^2 store in Singapore to include a brand new 600 m^2 showroom. The opening was celebrated with a large reception for more than 350 local and international business partners. The new showroom predominantly uses products by the Italian furniture manufacturer Poliform and fixtures by Louis Poulsen Lighting.

Space is an exceptionally professional retailer, and its shop is a veritable Mecca for aficionados of design. *Space* has undoubtedly contributed to the love of good quality among Singaporeans and increased their knowledge of exclusive international design products.

In North Asia, Louis Poulsen Lighting has also entered into partnerships with A-Hus in South Korea and Design Republic in Shanghai – two retail outlets offering design and lifestyle products with a correspondingly high level of quality. In mid-2007, Louis Poulsen Lighting's sales and support networks will be extended with further new retail companies and distributors.

Sune Kristensen is International Business Development Manager, Louis Poulsen Lighting, and Ole W. Rauberg is Business Development Manager, Louis Poulsen Lighting Asia Pacific.

The shades on the PH Snowball are curved like lamellas from a spherical shade. The lamp was introduced in 1958 but not put into production, probably because Louis Poulsen was busy on many other Poul Henningsen constructions at the time. Not until 1983 did the company start to produce PH Snowball from the original drawings.

PH 5 was launched in NYT 1958 and in Poul Henningsen's own words was 'a classic novelty'. Nobody could have known that it would come to be seen as one of the most classic of all PH lamps.

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