The new National Museum of Qatar: a unique symbiosis of old and new with temporary galleries, museum shop and cafe interiors illuminated with ERCO light

A 40,000m² desert rose: the new National Museum of Qatar, designed by French architect and Pritzker Prize winner Jean Nouvel, brings the cultural heritage of the desert peninsula to life for the world. In Doha's new museum, which plays with form and scale in a highly special way, ERCO illuminates galleries for temporary exhibitions as well as museum outlets, restaurants and cafés.

Project data

Client:	Qatar Museums
Architecture:	Ateliers Jean Nouvel, Paris / France
Interior Architecture & Lighting design for museum shops and restaurants:	Koichi Takada Architects, Sydney / Australia
Photography:	Gavriil Papadiotis

The permanent galleries of the museum invite visitors to immerse themselves in the history and culture of Qatar, a country in which tradition is deeply rooted and progress is experienced in the appearance of the city. The symbiosis of old and new also reflects the character of the new museum, which pays homage to the past and celebrates the future. Jean Nouvel has created incomparable architecture over a construction period of several years: inspired by a desert rose, a naturalphenomenon in which leaf-like crystal clusters form under dry, sandy conditions, the new museum complex consists of 76,000 interlocking fibre-reinforced concrete panels of different sizes. The new museum at the southern end of the Doha's corniche road displays the history of Qatar on an area of 1.5 million m² in three acts, a journey through time with museum visitors covering more than 2.7km.

Art brings history to life

Eleven galleries relate the story of Qatar in chronological order. Beginning with galleries on the geological origin of the Arabian Gulf and traditional culture up to the founding of the state and the historically dramatic discovery of oil. Among the most impressive exhibits are a pearl carpet from Baronda embroidered with more than 1.5 million golf pearls, rubies and diamonds, and the Al Zubarah Quran, the oldest Quran to have been produced in Qatar. Also included in the museum are works by local and international artists interpreting the history of Qatar.

From gallery to shop: perfect light for unusual rooms

Light is one of the essential design elements in the new National Museum – it emphasises materials, reinforces colours, reproduces

forms and brings spaces to life. The exhibition organisers of the temporary galleries use ERCO Parscan luminaires for this purpose. With nine different light distributions and four sizes, the luminaire for track is the ideal tool for temporary exhibitions. It was not only the planners of the exhibition areas who pursued such high demands regarding lighting. It was also important to the architects and lighting designers at Koichi Takada Architects, responsible for the architecture of the museum gift shop and children's gift shop, cafés and restaurants, to design rooms with light that satisfy their own exacting requirements for visual comfort. The complexity of the architecture presented them with several challenges during the planning phases. "The rooms are angled, the walls curve and the ceilings bend and flow. As a result, it certainly wasn't simple to capture the architecture in two dimensions based on the drawings. We could hardly rely on traditional lighting design methods. We therefore oriented the light to the interior and worked with a lot of spot light," attested Principal Koichi Takada.

The museum gift shops impress with undulating timbered walls and ceilings that meander through the rooms like fine sand dunes. Forms from nature were transferred to the architecture and light from ERCO reinforces the dynamics of the flowing structure. The designers were inspired by the light cave of Dahl Al Misfir. The 40-metre deep cave is a sanctuary in the heart of Doha and consists of fibrous gypsum crystals that glow with slight phosphorescence. To transfer this sense of magic and its dynamic lighting effect to the spaces, Koichi Takada Architects installed Gimbal recessed spotlights with wide flood (49°) and flood (29°) light distributions as well as Parscan spotlights with narrow spot distribution. The cardanic suspension of the Gimbal recessed ceiling luminaires allows them to be aligned in any direction. In combination with the 6° narrow spot light distribution of the Parscan spotlights, the shop lighting creates a fascinating interplay of flexibility and high brightness levels.

The cafés and restaurants each have a design theme of their own. In Café 875, the light beige walls and design elements, bathed in warm white light by Quintessence recessed spotlights, are reminiscent of the extremely rare 875 gold used in traditional jewellery in Qatar. The Juman Restaurant on the 4th floor references typical local themes such as pearl diving. Over four million pearls hang from the ceiling as if caught in fishing nets, and they start to dance with every breeze. A magical, fascinatingly dynamic spectacle is created, reminiscent of an underwater world, in the light of Quintessence recessed spotlights and small Starpoint downlights. "We aim to reflect Qatar's identity down to the very last detail. To achieve this we talked to Qatari citizens about their life in the emirate during the 8-year realisation phase. It was these personal insights that formed the basis for our designs," said Takada.

Energy efficiency – from the luminaire to the building architecture

Nouvel's desert rose is designed to reduce cooling complexity in the building. The cavity spaces between the panes act as thermal buffer zones and the numerous projections form shady areas on the facade. ERCO LED lighting tools were also used to create extremely resource-saving lighting solutions with low heat generation. Before beginning work with ERCO, it was important for the lighting designers to get to know the luminaire manufacturer. "We had joint workshops where we were familiarised with the products, and we could share experiences from similar projects. ERCO gave us the freedom to think out of the box during the planning phase. The right product solution was quickly found for each new approach. The dedication to good design and high quality standards is what brings us together," summarised Koichi Takada.

Nouvel expresses Qatar's deep-rooted connection to nature, the desert and the sea in a unique way. Unique in the truest sense of the word. The leaves of a desert rose are like fingerprints, with none resembling another. Each rose is a unique specimen. As with this museum.

The film about the project:
https://youtu.be/J5g4HFWbH3Y

Copies and links requested.

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Luminaires used in the project

Gimbal

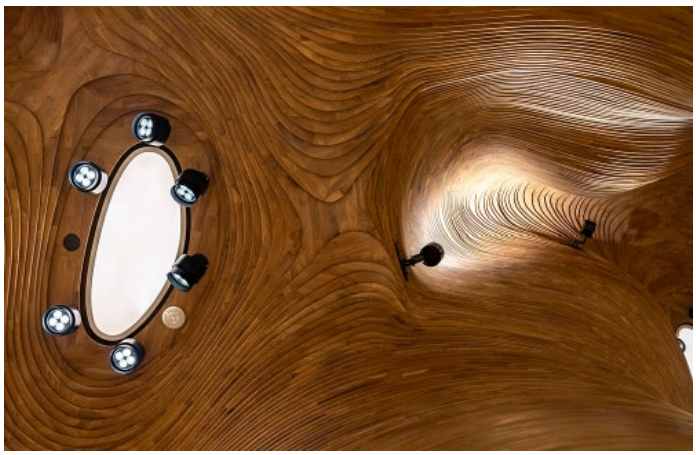
Parscan

Quintessence

Starpoint

About ERCO

The ERCO Light Factory in the German town of Lüdenscheid is a leading international specialist in architectural lighting using LED technology. The family business, founded in 1934, now operates as a global player with independent sales organisations and partners in 55 countries worldwide. Since 2015 ERCO's portfolio has been 100% LED. With this in mind, ERCO in Lüdenscheid develops, designs and produces digital luminaires with focus on photometrics, electronics and design. Working closely with architects, lighting designers and engineers, ERCO develops lighting tools used primarily for applications in the following fields: Work, Shop, Culture, Community, Hospitality, Living, Public and Contemplation. ERCO understands digital light as the fourth dimension of architecture – providing highly precise and efficient lighting solutions to support creative designers in turning their visions into reality.



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