



A sound wave in the forest

Sustainable lighting for a glass pavilion of music

The „House of Hungarian Music“ nestles like a futuristic oversized mushroom in the ‚Városliget‘ forested park of Budapest. Japanese architect Sou Fujimoto completely redefines the boundaries between indoors and outdoors and between architecture and nature – by almost nullifying them. Sustainable lighting from ERCO is part of the innovative pavilion architecture, and precise light control and high visual comfort are cornerstones of the lighting design.

Project data:

Project:	House of Hungarian Music, Budapest / Hungary
Architecture:	Sou Fujimoto, Sou Fujimoto Architects, Tokyo / Japan, M-Teampannon Kft., Budapest / Hungary
Electrical engineering:	Hungaroproject Kft., Budapest / Hungary
Photography:	David Schreyer, Graz / Austria

The World's Fair was held in the historic park in 1896, and now an ambitious cultural forum with numerous museum buildings is being built on obsolete and unused Expo sites. The House of Hungarian Music is the most spectacular new building of the „Liget Budapest Project“ with a budget in billions. The 836 square metre music pavilion combines various exhibition and event spaces, offices, a library and two outstanding concert halls under its projecting, organically curved roof structure.

High visual comfort in glass architecture
Within the weightless pavilion architecture, visitors can believe themselves to be in a clearing in the middle of the forest. All boundaries between the interior and exterior seem abrogated. The striking canopy structure, supported by elegant pillars, is perforated by a total of one hundred crater-

like cavities, akin to a Swiss cheese. Like in a fantastic greenhouse, trees grow through the cavities. Daylight thus also reaches down even into the basement. „We wanted to transform forest into architecture“ stated Fujimoto, an architect renowned for poetic nuances, about his artistic intention. The transparent architecture was the determining

parameter for the lighting concept. ERCO downlights were installed in the all-side glazed music pavilion to avoid glare and disruptive reflections. Good glare control ensures maximum visual comfort. The lighting targets sustainability throughout, and also contributed to the House of Hungarian Music receiving an excellent to very good BREEAM rating.

Precise light from a height of 12 metres

In the foyer with a ceiling opulently decorated by 30,000 specular gold leaf-like ornaments, 350 ERCO [Gimbal](#) recessed spotlights provide glare-free general lighting: the Gimbal luminaires, with focused light, imitate the incidence of natural light rays without illuminating the leaf ornaments themselves. The cardanic mechanism enables the luminaires to be precisely aligned to the gaps in the complex ceiling structure.

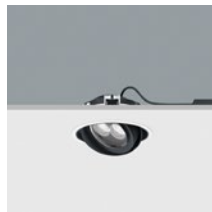
With a ceiling height of 12 metres, precisely directed light is essential. This is the only way to prevent light spill, which on the one hand causes glare and thus destroys the atmosphere of the architecture, and on the other hand also means wasted energy. ERCO luminaires function with projecting optical systems that direct the light with high precision – and thus still achieve high illuminance levels (lx/W) from large distances even with a low connected load. This creates the basis for [sustainable lighting](#) in which light is only used where it is needed, i.e. where human perception requires it.

In the basement, a permanent interactive, multimedia exhibition documents the history of European and Hungarian music. Here, too, high rooms characterise the architecture. This exhibition, as well as numerous screens in the exhibition areas, also had to be taken into account in the lighting concept. ERCO [Optec](#) spotlights for track were used because they provide precisely accentuated lighting even at a room height of seven metres. The light is directed precisely and exclusively to the target areas, precisely where required by the visitors. This approach not only underlines a responsible use of energy because light is omitted wherever it is not needed, it is also part of the exhibition concept: the multimedia screens, illuminated without disturbing reflections, stand out from the darkness to create a dramatic effect.

Zero light pollution

The outdoor lighting had to comply with strict regulations against light pollution – neither trees nor sky could be directly illuminated in the Városliget park. 100 ERCO [Tesis](#) ground-recessed luminaires illuminate the shiny gold leaf canopy of the glazed foyer from outside, providing poetic, indirect lighting. The precisely directed light always remains below the roof construction without entering the upper hemisphere, thus avoiding light pollution. With playful ease, the glass pavilion succeeds in creating a symbiosis between architecture, light, music and urban woodland. Just a few minutes' walk from Budapest's city centre, the House of Hungarian Music represents a fabulously different and sonically inspiring world.

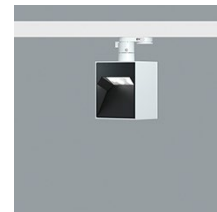
Luminaires used in the project



Gimbal



Optec



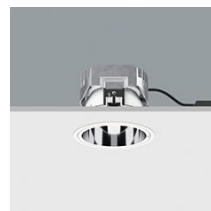
Pantrac



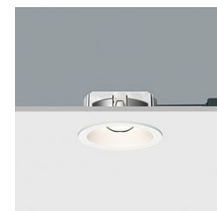
Parscan



Pollux



Quintessence



Skim



Tesis

About ERCO

ERCO is an international specialist for high-quality and digital architectural lighting. The family-owned company, founded in 1934, operates globally in 55 countries with independent sales organisations and partners.

ERCO understands light as the fourth dimension of architecture – and thus as an integral part of sustainable building. Light is the contribution to making society and architecture better and, at the same time, preserving our environment. ERCO Greenology® – the corporate strategy for sustainable lighting – combines ecological responsibility with technological expertise.

At the light factory in Lüdenscheid, Germany, ERCO develops, designs and manufactures

luminaires with a focus on photometric optics, electronics and sustainable design. The lighting tools are developed in close collaboration with architects, lighting designers and electrical designers. They are used primarily in the following applications: Work and Culture, Community and Public/Outdoor, Contemplation, Living, Shop and Hospitality. ERCO lighting experts support designers worldwide in transforming their projects into reality with highly precise, efficient and sustainable lighting solutions.

If you require any further information on ERCO or image material, please visit us at www.ercocom/presse. We can also provide you with material on projects worldwide for your media coverage.

Copies and links requested.

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