

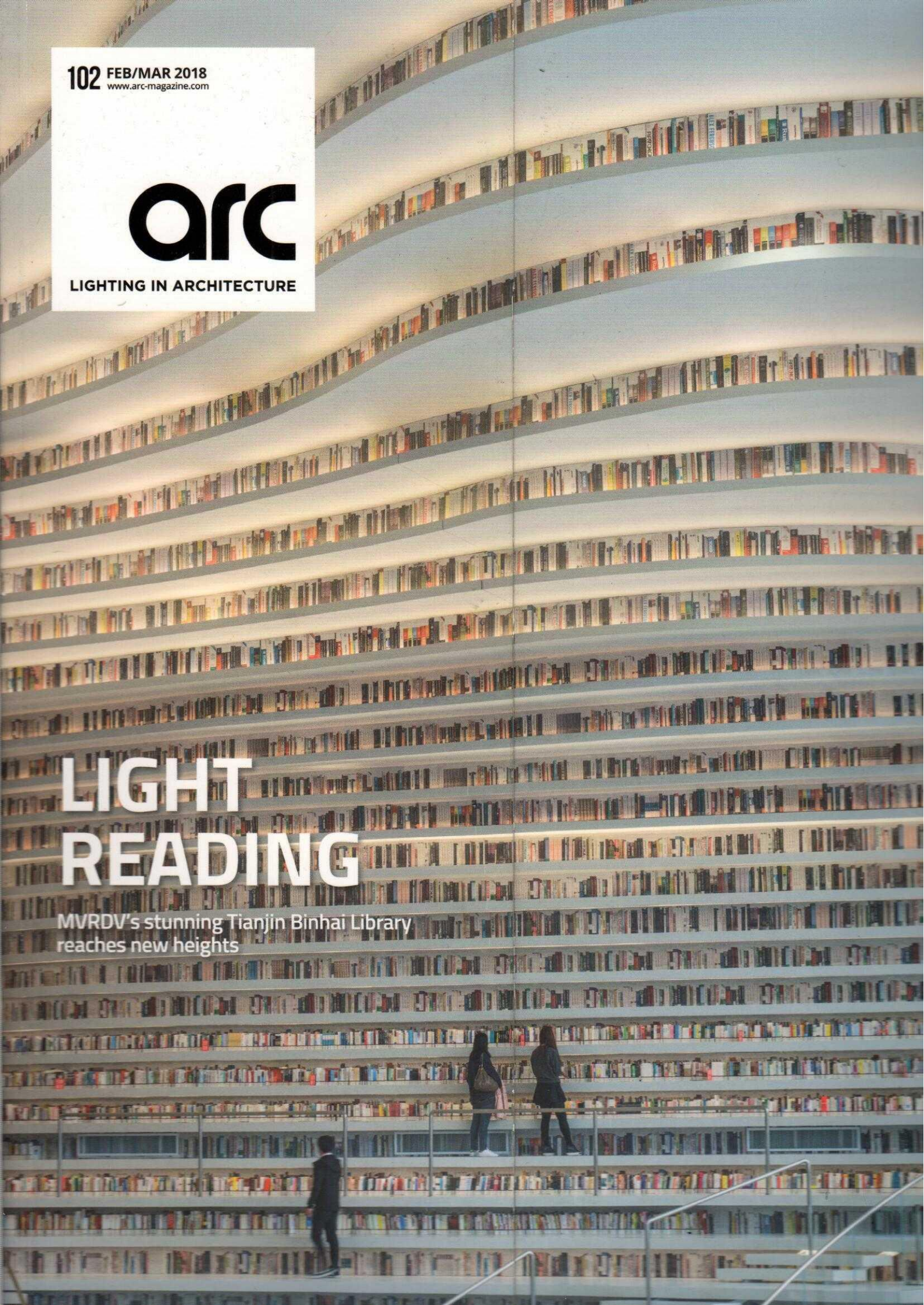
102 FEB/MAR 2018
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LIGHTING IN ARCHITECTURE

LIGHT READING

MVRDV's stunning Tianjin Binhai Library reaches new heights





Pic: Matteo Piazza



Pic: Marco Campanini



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Pic: Matteo Piazza

Eco-friendly Modernism

A modern residential complex in the highly desired suburb of Fidenza, Italy, has broken all barriers of sustainability and eco-friendly design.

Situated in the upmarket Italian suburb, Fidenza, the House on the Park is an apartment block that brings all modern technology and design to fruition. The original and expressive design has incorporated a huge range of eco-friendly attributes throughout the building, thus becoming the first to obtain certification from the Active House Italia, Passive House Institute Italia and the Multi Comfort by Saint Gobain, whose guidelines examine the energy performance aspects but also the quality of the building's environmental impact, the sustainable building materials and the health and comfort levels of the living environments for residents.

Architectural Lighting Designer Rada Markovic had the task of lighting this edifice's three different sections of varying sizes and heights for the client, Montanari Costuzioni s.r.l. The façade was

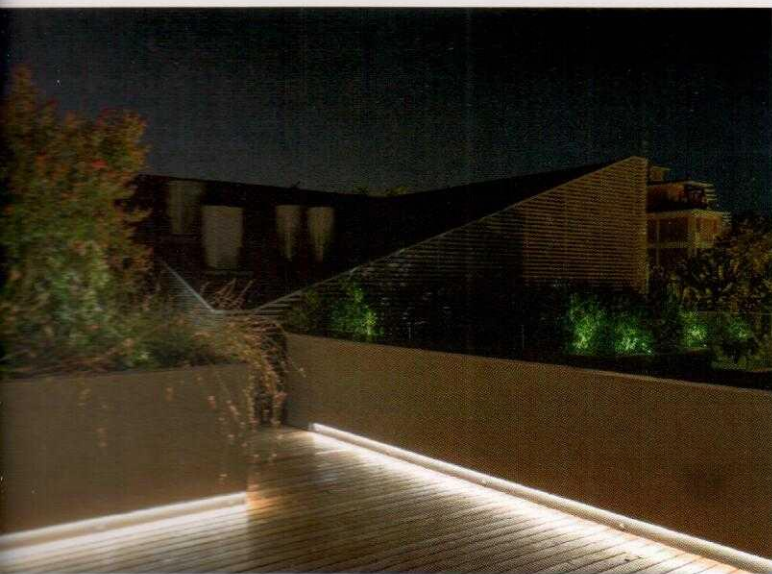
programmed with various illumination modes in order to cooperate with the energy efficiency standards, including evening, utility and night and day passage schemes. Cree LED strips and an array of L&L Bright fixtures were put in place to light the entrance atrium, whilst a smaller light source was used to light the main columns, specifically a 3W in-ground mini spot with +/- 15-degrees for glare-free scenographic lighting. The central columns were placed as a reference of leaning tree trunks in the wind and treated in a certain way to act as a metaphor for 'friendly nature' as the central running theme of the building and its source of energy. Soft, diffused and indirect lighting is used for the central stairway that opens up the heart of the building, drawing the eye up with a continuous line of light. 4W and 14W LED strips by Cree that are sustainable, extra thin, flexible, powerful and easily adaptable, are used on each of the edges.

Opposite Page External shot of the apartment block. Tree lined streets are complimented with the exterior lighting.

This Page Left Outside loggias with dimmed in-ground spots and illuminated shrubbery. The L&L Bright and Spot fixtures create a modern and warm sense to the external walkways and create a safe environment for residents to move around the building.

Top Right Internal stairway presenting the contrasting light line using the Cree LED strip lights that draws the eye through and upwards.

Bottom Right External entrance atrium lit with accent spots on the columns, stairway and ceiling LED lines by Luce & Light and Cree. Designed with DIALux software programming, the lighting can be adapted and altered according to the needs of the spaces and natural light.



Top Buck Lighting's linear strip LED lights underline the garden beds in the outside walkways, creating a non-intrusive floor lighting solution, giving the outdoor space a modern feel.

Middle Buck Lighting Slim Line LEDs light the underground garage spaces with bold, clean lines. Providing bright functional lighting, the LEDs also add a modern, artistic take on the typical underground carpark lighting.

Bottom An aerial view of the outside space and surrounding gardens for the block of flats. L&L Bright and Spot fixtures are used throughout the outside space, creating a chic and somewhat majestic feel to the environment, allowing the varied plants to cast bold shadows across the white walls.

Pics: Marco Campanini



Markovic's lines of light also create a visual contrast and a dynamic interaction between the light during the day and night.

Surrounding pedestrian areas and garden features are illuminated with in-ground light sources using L&L Bright and Spot fittings, whilst pathways and communal spaces are lit with Buck Lighting's Slim Line fixtures. The public access to internal parking areas are lit with L&L's Bright 5.9D fittings and are controlled using motion sensors, allowing five minutes of light per activation.

Depending on the time of day and the season, each of the external light fittings are synced to individual modes and are adjusted accordingly with the Dali sensors. For example, the Night passage settings reduce to 50% with some remaining on for security purposes, whereas the Day passage adjusts depending on the amount of daylight, especially during the darker winter months. The Dali sensors will dim the various strip lights to achieve the pre-set intensity, thus in-keeping with the electrical consumption targets.

Giovanni del Boca and Alessandra Amoretti, Architects and Co-owners of Studio DelBoca + Partners, which worked on the project alongside Milano-Parma and Studio Architetti's Simona e Giovanni Rossi, commented: "House on the Park is a structure with a contemporary design located in a prime area of the town. The project combines sustainability, energy efficiency and technological innovation within a highly flexible and efficient layout of the spaces and traffic flows designed to safeguard the fundamental aspects of the urban surroundings: the view and the greenery. It is the result of a concerned multi-disciplinary approach and the potent but not overpowering architectural design is based on a qualitative approach truly capable of improving man's habitat, and the well-being and quality of life of its residents." ■

