A modern pavilion for art

he Norval Foundation, a multi-sensory celebration of art, architecture and landscape, opened to the public this April. The project provided a unique opportunity for the project team; a client brief with the aspiration to create a world class art and cultural centre in an exceptional location that would be open to the public. Designed to international standards it is expected to become a significant space for art both in South Africa and globally.

Location and site

The Norval Foundation is located in the Steenberg area on the slopes of the Constantiaberg Mountain, surrounded by vineyards and residential estates. The site is bounded by Steenberg Road on its northeast boundary, by the vineyards of Steenberg Farm and Silwersteen residential estate on its north western boundary, and by a conservation area on its south eastern boundary.

The site incorporates an incredibly sensitive existing wetland ecosystem that had been historically neglected. The wetland was completly rehabilitated, with alien species removed and embankments shaped to improve the water course. The wetland and its surrounding buffer zones have been revived and replanted with locally indigenous fynbos, enhanced by other indigenous plants and naturalised species, and has already attracted a multitude of insects and birds onto the site.

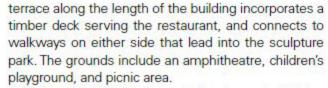
Design concept

The Norval Foundation was envisioned by dhk architects as a modern pavilion for art, set against a dramatic mountain and vineyard landscape. It is a pure expression of form; a bold rectangular mass, delineating its heavy walled enclosure and light over-sailing roof.

The building is constrained by the linear site, between a busy road and an existing wetland; turning its back to a neighbouring embassy compound. The linear circulation spine is positioned along this edge, with the galleries and public spaces facing the natural landscape, capturing framed views of the wetland, vineyards and mountains beyond.

The building sits in an elevated position, and shields the wetland, creating a private space for the sculpture park and forms an inhabited threshold between public and private zones. A triple volume atrium establishes a deliberate visual connection between these zones - one urban, the other natural - and provides a physical transition between the contrasting environments.

The Norval Foundation is experienced in a linear sequence. A curved wall that extends into the entrance court, draws visitors past the double volume restaurant, gallery shop and into the generous reception which calmly directs guests to the central atrium that introduces the main galleries. A



Visitors to the restaurant dine beneath Ashlee Ainsley Lloyd's 'Molecular light'; a large-scale light installation that was created for A New Wave, Southern Guild's exhibition showcasing emerging design talent in August 2017.

Molecular is hand wrought from over a kilometre of chunky blackened rope and echoes the craggy forms of the surrounding mountains. "I wanted to create a floating, primitive and virtually conscious formation whose textured shape is reminiscent of ravines and abysses found in dramatic natural earth formations that are present on this beautiful continent," the designer said about her original design.

Ashlee is a young industrial designer and textile lover based in Cape Town who is inspired by the rich culture of craft in Southern Africa and the complex forms found in nature - passions she channels into tactile pieces that engage one's emotions and senses.

Kevin Stein, associate at dhk architects, notes that there was an intended duality between natural and artificial light, and that the architects played with the concept of transition lighting expressed through spatial planning. "This is experienced in the journey through the gallery spaces, starting in the special exhibitions gallery which has no natural light, on to the six smaller galleries which have a small amount of natural light via the clerestory, and culminating in the dramatic triple volume sculpture gallery with full height windows and an abundance of natural light," he says.

The remainder of the building aims to create a sense of lightness. "This was achieved through the use of clerestory glazing (natural light) and recessed ceiling light coves (artificial light) in combination with shadow cornice details. In order to accentuate the textures, shapes and forms of the building, the designers, (Pamboukian lightdesign) opted for upward lighting, rather than lighting from top down, as this creates a more dramatic lighting effect," he says.

Stein notes that finding the balance between clerestory lighting and artificial lighting was tricky, especially considering all the elements, layers and volumes of the building. "A lot of thought and careful planning was put into making sure the conceived lighting duality was achieved."

The gallery

The gallery spaces comprise a large environmentally-









controlled special exhibitions space, and a series of six small galleries, culminating in a triple volume sculpture gallery, a dramatic setting for large scale pieces with Table Mountain as the backdrop. All the gallery spaces are column free, allowing for maximum flexibility for display of all forms of art, and they can be treated as separate experiences or to create a seguential journey as required.

The specific technical requirements for the gallery spaces in terms of environment control take into account careful control of light, temperature



and humidity, acoustics, and fire prevention. To create the minimal spaces required for the display of art, all of the services are concealed in the wall and ceiling cavities to create a seamless appearance.

Converge Consulting, the appointed electrical consultants for the project worked on the electrical design, including the lighting and building management control system with integration, with other disciplines and equipment from a green initiative perspective.

"We were the appointed electrical consultants responsible for the design of the electrical infrastructure, small power, BOH lighting and building management system, where the latter included lighting control and integration with other disciplines, including HVAC, fire and photovoltaics," notes Converge Consulting's Tino Brink. "One of the unique challenges was having two electrical contracting companies appointed for the same project - clear and concise instructions were implemented from the outset to ensure and define a clear split in responsibility between the two entities."

Brink continues, "The FOH portion of the lighting was designed by Pamboukian lightdesign and the BOH by Converge Consulting. For the BOH area we specified energy efficient linear LED linear luminaires with PIR occupancy sensors to further reduce the carbon footprint. Daylight harvesting occupancy sensors were specified within the open plan office

> areas to ensure the DALI luminaires were dimmed to

sustainability features include solar photovoltaic panels on the roof, a building management system to optimise performance, water saving measures, grey water purification system, return of storm water to the wetland system, and energy efficient glazing and solar shading on the façade. Wherever possible, natural light to the internal spaces has been maximised, with large full height and clerestory windows throughout, with the exception of certain galleries.

"The combination of natural and artificial lighting has worked very well," concludes Stein from dhk. "The decision to opt for coved lighting accompanied by dramatic up lighting has been very successful in creating an experience that celebrates the architectural form of the building."

The architectural design is a rational response to the specific context and the functional requirements of the brief, and strikes a balance between two motivations: to protect the artwork within, and maximise views to the natural landscape outside. up















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