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CONTINUING THE JOURNEY

Techno-Q returns to NMoQ



PROAV'S TALE OF TRUST

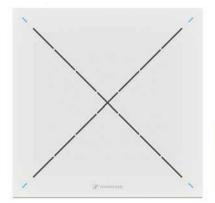
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Continuing the journey

Techno Q recently returned to the National Museum of Qatar to finish what it started and complete Qatar's historical journey

ONE OF THE MOST INTERESTING PROJECTS VISITED BY

Pro AVL MEA last year was the new National Museum of Qatar in Doha. The building is unique for many different reasons, from its unusual shape to the way it crafts a journey for visitors through its meandering walls and interwinding corridors. Not least, NMoQ boasts an audiovisual system unrivalled by similar institutions in the region. But, at the time of *Pro AVL MEA*'s last visit, there was even more work to be done. When it opened to the public in 2019, 10 of the 11 gallery exhibits had been fully realised, but there was an empty space left at the end of the tour.

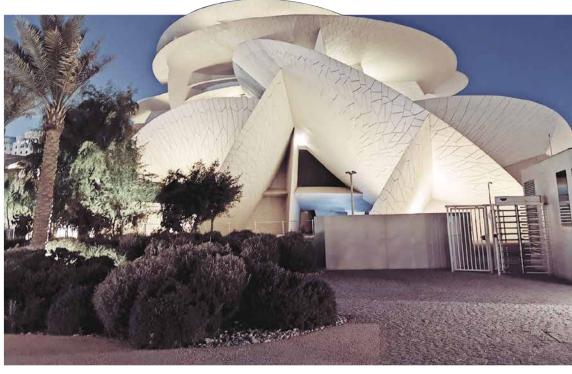
Designed by celebrated, Pritzker Award-winning French architect and company Ateliers Jean Nouvel, the museum traces the history of the peninsula nation from its earliest times through to the modern day. Visitors take a journey through a labyrinth of large, irregularly shaped wall, ceiling and floor panels that characterise the overall museum design. Jean Nouvel's inspiration for the unusual structure comes from the desert rose crystal, a flower-like aggregate of mineral crystals occurring only in arid coastal regions. But the result is a systems integrator's nightmare. No two walls are parallel.

Involved with the project from its initial stages, AV integrator Techno Q has overseen the installation of complex, multichannel audio, lighting and video displays with filmed themes depicting different aspects of modern Qatar that mutate dynamically across the walls, ceiling and floor, transporting the visitors across the realms of sensory elements. The latest exhibit, Gallery 11, was opened to visitors at the end of 2019 and highlights the saga of the country's perseverant march into the future, as led by the ruler of Qatar, HH Sheikh Tamim bin Hamad Al Thani.



Some of the walls display messages from residents alive in Qatar today

"While the interior architecture is so typically asymmetrical – owing to the characteristically curved and interlocking discs meshed in cantilevered angles – the idea to impose multi-sensory museography imagery around large, mutating, mirror-finish panels of irregular dimensions posed a potential challenge for us to achieve a seamless and immersive AV integration," explains Techno Q project manager, Ahmed Marei.



The exterior of the museum is inspired by the desert rose

The projection options explored by the architect -4 K rear projection and LCD panels - were considered to be unfeasible by Techno Q since rear projection required operable space behind the screens, which the unusual interior shape made impractical. The LCDs did not allow for the desired brightness, seamlessness and scalability Techno Q was after.

"For rear projection, even a UST model didn't seem to work since it had the risk of projecting 'hot spots' rendering the images unpleasant," furthers Marei. "For LCDs, apart from limitations of resolution and fixed size, the bezel structure would undo the seamlessness of the image."

Techno Q explored new technologies and examined the visitor experience concerning the content visibility guideline. Given the nature of the setting and client requirements, it was decided that bringing in modular LED display solutions appeared to justify the content. The integrator, therefore, suggested deploying an LED screen solution with 1.9mm pixel pitch since it allowed, due to its smaller cabinet size, customisation to match the irregular surface dimensions, as well as meet the resolution requirements. Additionally, ease of install was superior to the previous options. However, the LED also posed a challenge for serviceability, as front accessibility was hindered by the large mirrorglass panels.



Modular LED displays were favoured over rear projection



The installation's limited space and complex angles provided a challenge



The exhibition is shown here under working lights for

Techno Q devised a sliding "rail system" that allows movement of panels backwards without having to be moved out. "It proved an effective service solution," notes Marei.

"We collaborated with Daktronics to create a customised LED configuration using module-based displays and staging experts Gerriets GmbH for the sliding mechanism. Four Dataton WATCHPAX 60 media servers with eight outputs each collaborate with 2SI and SQD pixel mapping technologies routed to the



screens via a 64x64 I/O 3Gb/ss HD NVISION Grass Valley CR6464-3GIG system. The Dataton Master media server generated and distributed time codes for audio and lighting outputs ensuring the seamless flow of content," explains Techno-Q commissioning manager, Saad Afzal.

Themed lighting from ROSCO was explored to accentuate the lighting ambience and was augmented by Crestron and Medialon systems via a DMX protocol. Meyer Sound's D-Mitri platform was used to create the multichannel audio effect providing the required flow in the immersive environment.

"With brilliantly glowing LED video from the front, aurally pleasing audio from the top and bottom and mood-setting lighting from within, all working in tandem, in a very dramatic architectural setting, Gallery 11 is all about guiding visitors through a multi-sensory experience and leaving them with strong memories about Qatar as it stands today and into the future," concludes Marei. "The dramatisation of mirror-finish interiors, all-encompassing sounds and the appeal of using



Saad Afzal

the right amount and movement of light elevates the visitor experience from the physical into an imaginary realm, while the blending of display content onto the floors and ceilings allures guests into an irresistible engagement."

Having been involved in the project right from the start, Techno Q has now been able to help re-envision the country's progress all the way from inception to the present day.

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