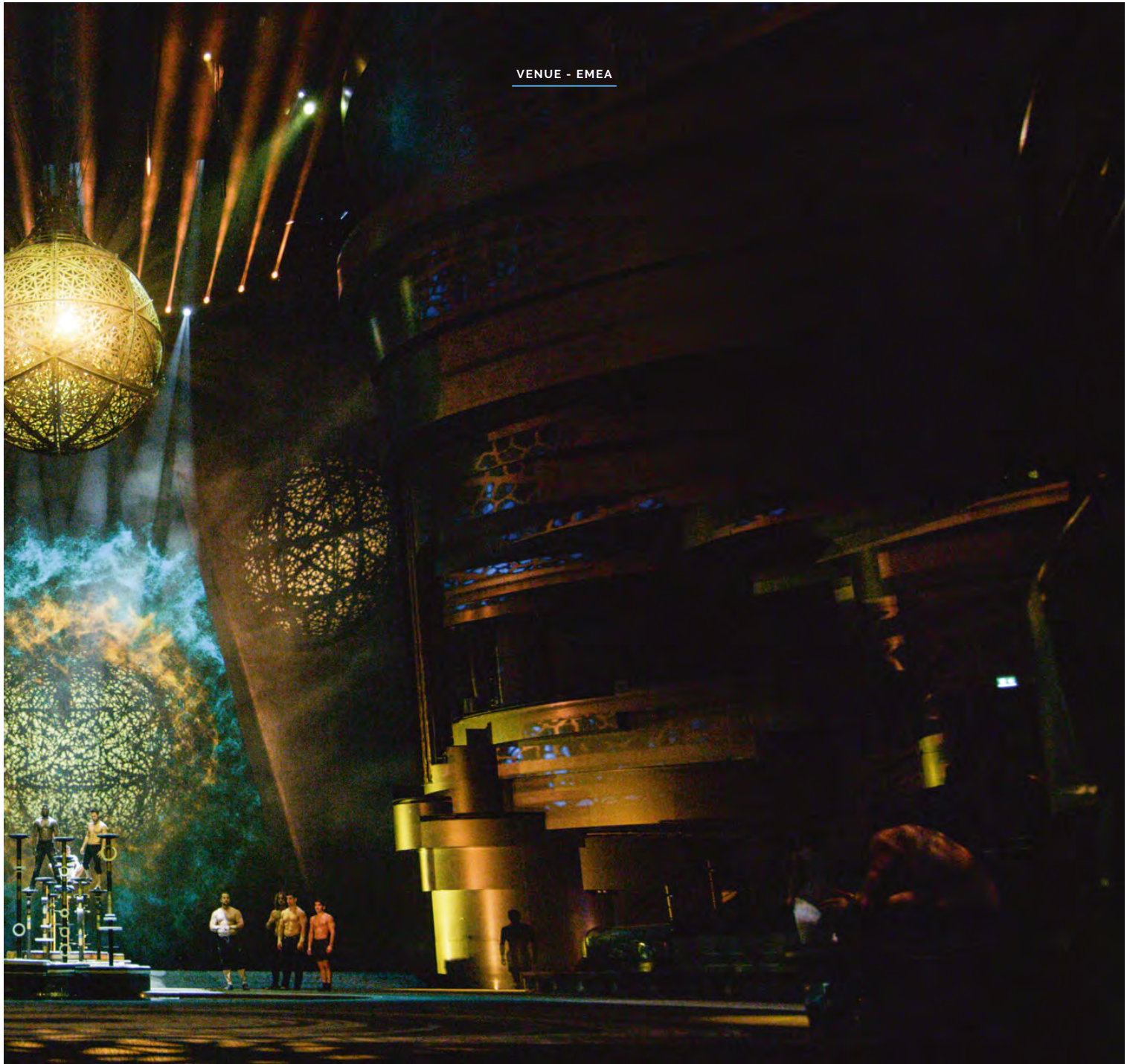


LA PERLE



DUBAI, UAE
EUROPE, MIDDLE EAST & AFRICA

Yet again, Franco Dragone takes the world by storm with his latest immersive creation, La Perle. Its permanent home is in Dubai, Franco's first venture into the Middle East market. He has used the expertise of L-Acoustics, DiGiCo, Meyer Sound, BSS, Clay Paky, MA Lighting, VYV, Barco and ShowTex to bring his latest creation to life.



• Above La Perte in Dubai officially opened its doors on 31 August.

In the world of story-telling through immersive and creative theatre, the name Dragone speaks a thousand words. Born in southern Italy in the early '50s, Franco Dragone relocated to Belgium in his early childhood settling in La Louvière. After spending his 30's in Canada - working as a teacher at the Circus of Immaculate Conception and later a pivotal role at Cirque du Soleil - it was La Louvière where he returned, to set up the company in his family name back in 2000. Today, Franco Dragone is one of the world's most sought-after artistic directors. Known the world over, the company has grown immensely since its inception with teams - including performers and artists, production and operations, corporate and creative designers - working around the globe on Dragone's resident shows;

The Dai Show, Lido, The Han Show, Le Rêve and The House of Dancing Water. Though it may seem difficult to fathom, given the landscape of the entertainment market in the Middle East, Franco and his team are only just entering the region. But what a way to make their mark, with a one-of-a-kind theatre built in the heart of Al Habtoor City - a multi-use development incorporating three five-star hotels alongside three luxurious residential towers. La Perte is the region's first resident show and is billed to be an unprecedented immersive production that will mark an iconic milestone for live entertainment in Dubai and the UAE as a whole. The show is a partnership between Franco and Khalaf Ahmad Al Habtoor along with his son, Mohammed Khalaf Al Habtoor - the duo behind the Al Habtoor

City development. The idea was born after Mohammed's trip to see Le Rêve in Las Vegas many years ago. They broke ground for La Perte in 2013.

The 1,300-seat theatre - fairly average in terms of size - is unique in comparison to other theatre spaces in that it only consists of 14 rows, offering an intimate 270° experience for each and every member of the audience. Another standout feature of this theatre is its centrally located on-stage pool. In a matter of seconds the pool can fill, deep even for objects to float on the water or to submerge one of the cast members - when they dive into the pool from 25-metres above - and then just as quickly, it can drain again. The pool uses a staggering 2.7 million litres of water.

La Perte is also the first theatre to have ➤

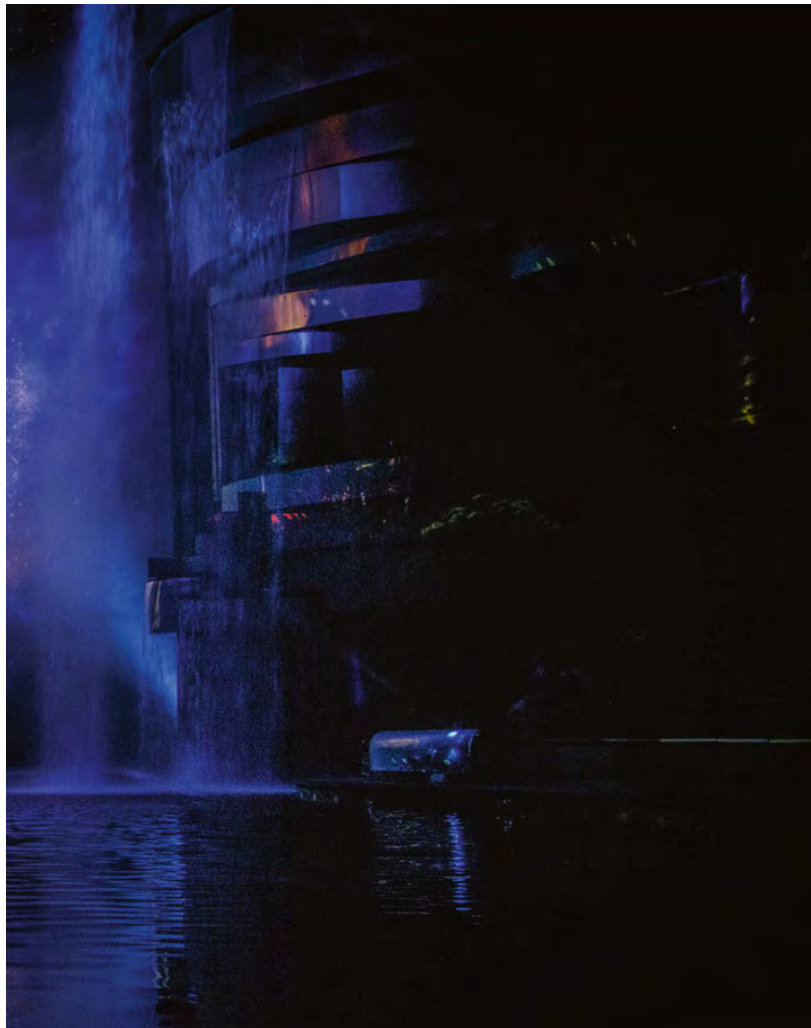


a fully functioning drawbridge, which is utilised by the cast to enhance their performance. The show features 65 artists from 23 different countries, each bringing their own unique set of skills to the performance, ranging from acting, acrobats, aquatic and aerial stunts. The story of La Perle itself takes inspiration from Dubai and the cast themselves are emblematic of Dubai's multicultural population, as there are so many diverse cultures within the UAE. With two shows a day, five days a week, the show will be welcoming more 450,000 guests a year.

Of course, these memorising performances would not be possible without the support and back up of technology - and, like the team, Franco would not have settled for anything but the best, meaning La Perle has been fully equipped with the very latest technology advancement, the first of which being Syva - L-Acoustics' new colinear system. "Syva is a new breed of sound system combining the benefits of line source technology with a plug-and-play approach, in a sleek

"I was excited ahead of using the DiGiCo consoles because I deem them a real sound console. In terms of the mixing and the live functionality of a sound console, I'm looking forward to having that back, as more recently I been using an audio show control system."

design, tailor-made for places where elegance and discretion are paramount," said Stéphane Ecalle, Marketing Director at L-Acoustics. Although a late addition to the inventory, due to the timing of the product release, it demonstrates how committed the theatre is to producing the optimum experience for the audience. Sound Designer at La Perle, Sebastian Hammond takes up the Syva story: "I'm so excited to be one of the first clients to have Syva. We wanted the clarity and the quality of an L-Acoustics product but finding something to fit within the architectural limitations we had was tricky, until Syva came along. Its size is perfect for the space, and it is still capable of the throw I need - about 35-metres at the furthest point." The two Syva columns accompany the main L-Acoustics KARAI rig, which is configured with a house left and house right system and each side has L-C-R hangs each comprising six KARAI cabinets and a SB18 subwoofer on top. There are a further two hangs on either side of the proscenium. "The set-up



creates a wide stereo image, and we have the ability to bring elements out of the mix using the centre array, whether that be vocals, an instrument or an effect," added Sebastian.

Having been part of the Dragone family since 2014, Sebastian moved from The Han Show Theatre in China in November last year to take over the audio responsibilities at La Perle. Although not directly involved in the audio design and planning, he stepped in just prior to installation, which he believes was a crucial moment. "It was actually a very convenient point to step in because I was able to look at the space before the loudspeakers were hung. There are always conflicts found when it comes time to move into the theatre," he said. "Designs were made on paper, obviously, but when you get into the space you inevitably find that you can't put a loudspeaker where it was originally intended. Although the end result was very close to the initial design, it was great to be a part of the key decisions once the

loudspeakers needed to be placed. And not just for the loudspeakers, but for the whole system in general and getting the system up and running."

Loudspeaker locations on a show like La Perle throw up a number of obstacles, water effects and automation to name just a few. The show features rain effects and water fountains, so the audio team had to work hand-in-hand with the special effects designers to ensure loudspeakers wouldn't get in the way and therefore risk getting wet. With the automation aspect, Sebastian and the design team had to ensure the safety of the aerial performers. "There is a specific clearance zone that is needed around a winch for example a winch line used for flying performers across the stage has a certain radius that we need to clear, a zone allowing for a swing or a sway on that line," he explained.

Due to the size of the theatre design, a delay ring was required, featuring 32 Meyer Sound UP4-XP speakers along with the newly released Meyer Sound



DRAGONE TEAM

Founder & Artistic Director of Dragone - Franco Dragone
 Head of the Studio and Creative Departments at Dragone and
 Executive Production Director of La Perte - Jean Marcouiller
 Lighting Designer - Enrico Bagnoli
 Set Designer - Jean Rabasse
 Sound Designer and Head of Sound for Operations -
 Sebastian Hammond

SOLOTECH TEAM

Audio Project Manager/System Designer - Mario St-Onge
 Projection Project Manager/System Designer - Tom Roland
 Senior Site Supervisor - Patrick Marleau
 Site Supervisor Projection - Scott Tucker
 Site Supervisor Audio - Martin Pare
 Project Coordinator - Louise Belanger
 Logistics Coordinator (Montreal) - Maria Romero
 Logistics Coordinator (Las Vegas) - James Porcell
 Project Director - Bob Barbagallo

Galaxy 816 processors. Surrounds behind the audience made up of 34 Meyer Sound UPM-1XP have also been installed.

They provide high sound pressure levels, extremely low distortion, and uniform directional control, yet are discreet enough to blend into the aesthetics - in fact they are hidden in the rear wall of the theatre. These speakers also work with the surround ring to produce even coverage. A second row of surrounds comprises 10 L-Acoustics 12XT loudspeakers, so between these two surround, it's possible to get ample coverage for different imaging of effects and reverbs.

Front-fill duties are taken care of by 24 Meyer Sound MM4-XP's, which are ideal in size and because they are waterproof and low voltage, there is no need to worry about them being too close to the pool. Completing the loudspeaker line-up are eight K-array KP102's and eight K-array Anakonda KAN200+ flexible arrays, both of which are used as hidden fill loudspeakers. "The K-array products are ideal cosmetically because they blend in with the environment, the theatre designers

were happy that the loudspeakers weren't so intrusive of their design," said Sebastian. Two K-array all-in-one KA84 audio power amplifiers look after power and processing needs for the K-array boxes. Amplification and control for L-Acoustics systems, is provided through the company's amplified controllers - the LA8 and the LA4X. A total of 15 LA8's and four LA4Xs are in place at La Perte and both amplifiers are more than adequate for the theatre in terms of EQ'ing and delay. With the Meyer Sound cabinets being self-powered, all they require is loudspeaker management, which is provided courtesy of a BSS London Soundweb BLU-806 and six BLU-160's. Sebastian added: "BSS is basically looking after all our signal flow in terms of outputs to the PA, looking after routing, matrixing and also processing for certain elements." The amplifier and processor racks are kept in well away from the stage, therefore eliminating the possibility of them getting wet, which ultimately extends the longevity of the show.

For mixing capabilities, DiGiCo takes



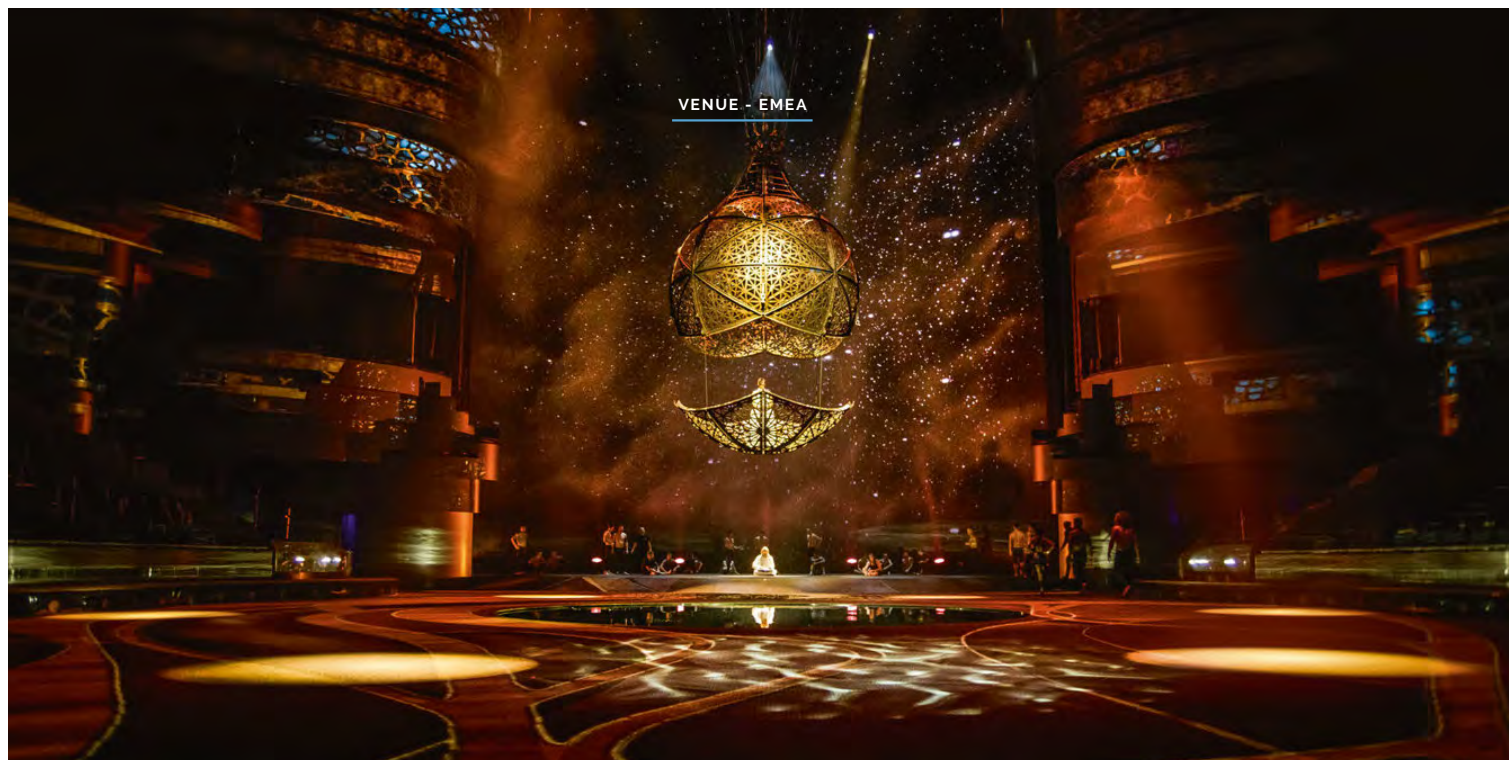
• Above
The projection screens stretch across the walls, the seats, the floors and even the building's dome.

control at La Perle. It was an interesting opportunity for Sebastian, having not worked with the brand previously in resident shows, but he did of course, know it by reputation. "I was excited ahead of using the DiGiCo consoles because I deem them a real sound console," he said. "In terms of the mixing and the live functionality of the console, I'm looking forward to having that back, as more recently we have used an audio show control system. And although I may lose the features of the latter system that I'm used to, I will have to be more creative with how I use the DiGiCo console." An SD7 is in place at front of house taking responsibility for the audience mix. While an SD10 caters for the musicians and artists. Packed full of features the SD Series, thanks to the company's Super FPGA technology, is able to deliver high-density digital processing. They also offer an abundance of I/O options, which in the case of La Perle is fulfilled by a DiGiCo Waves Sound-Grid, D-Rack and SD-Mini Rack, as well as DD2's and a DD4 from Optocore. Local support for the DiGiCo consoles - as well as the L-Acoustics PA - came from Delta Sound and so Sebastian has been and will continue to be in close contact

with them. Technical Support Engineer of Delta Sound, Mahesh Ramdin, said: "It was a great experience working with the dedicated team from Dragone over the summer at the La Perle theatre in Dubai. I had the privilege of work with the in-house sound team, setting up the flagship console from DiGiCo the SD7. The SD7 is the main show console at front of house and is accompanied with a DiGiCo SD10 and SD10 remote engine as the monitor console for the band. All consoles are in a fibre optic loop with DiGiCo racks and devices from Optocore to provide a network of audio patch." The installation itself though, was carried out by Montreal-based Solotech. Responsible for the audio, visual and comms installation, the Canadian company is no stranger to Dragone, having partnered successfully on previous projects, hence the reason for using an out-of-region installer. Projector Director for Solotech, Bob Barbagallo, said: "Solotech has had a long working relationship with the Dragone team with work performed on other Dragone creations. Working with their Dubai creative team has been exciting. As the show evolves Solotech adapts to the required artistic changes

to have the audio and video projection tools available when required. Solotech's system designers, project managers, and logistic coordinators worked closely with Dragone and their partner Al Habtoor to produce something very special, La Perle."

To accompany the top of the range audio inventory is an equally spectacular visual package. And, as mentioned earlier, an important factor of the theatre and indeed the story of La Perle are the water effects. "We're pretty good at working with an aqua based theatre after Le Rêve and The House of Dancing Water," said Jean Marcouiller, Head of the Studio and Creative Departments at Dragone and Executive Production Director of La Perle. "Water for us is like second nature. We find that utilising water within our shows brings a special element to the production, even though it is difficult to work with. Design wise though it is very rewarding as introducing water into a space turns it into a completely different one. So, over the years we have learned that there are thousands of different ways to incorporate water into a production." Having worked for Dragone since 2003, Jean joined the company as a tech-



VENUE - EMEA

nical director but quickly progressed through the ranks. Today, he is Head of the Studio and Creative Departments at Dragone - which essentially means he's in charge of general management of all the Dragone shows, overseeing design, hiring, conception and construction - second in command to Franco himself.

"With La Perle, we're introducing various state-of-the-art special effects that have never been achieved within a production before. Water effects using high level robotics, which are controlled by the automation desk and so the aerial acrobatics and the water fountain effects will be interlinked, which has never been done before. We also use high-level displacement of water like torrents as the concept of the show leans more towards rivers rather than lakes. Then we have the regular effects, but on a larger scale, such as smoke, and rain."

Aside from the mind-blowing water effects, the audience is also taken in by the breath-taking 3D projection mapping. The projection screens stretch across the walls, the seats, the floors and even the building's dome. Using 24 Barco projectors - a combination of four HDF W-26's as backdrop projectors and 20 HDF W-26 projectors, 12 for the dome, six for the floor and two for the bridge. Content design and creation by Montreal-based VYV, La Perle's is home to a fully immersive visual setup.

VYV use nine PHOTON media servers and two PHOTON controllers for La Perle that provide 270-degree coverage stretching across the entire theatre. The real-time and automatic calibration that PHOTON offers allows scene changes within the show to flow seamlessly. The media servers are also capable of compositing with the lighting, audio, and automation for perfectly streamlined performances.

The 270° theatre design was something that scenic designer for La Perle, Jean Rabasse considered in great detail when he joined the project, right at the very beginning. A famous French cinema set decorator and scenographer, he started to collaborate with Franco on La Perle and while doing so the pair also worked to open the new show of the Lido in Paris - Paris Merveilles in 2015.

"I like to be involved with the creation of the theatre, the seating and the audience perspective," said Jean. "The theatre design is very much linked to what Franco wants to show his audience, so we work together closely to achieve this. We consider the spirit of the show, how we want to seat the audience, how we see the artists, the video and the lighting, which is why it's important to be involved from the beginning to get the relation between the audience and the stage just right."

For La Perle, Jean was to create the illusion of a cavern in the desert, which unfolds so the audience discover the beauty of the surroundings. He also wanted the design to be a continuation of Dubai itself - quality and luxury.

Adding yet another dimension to the visual display are the lighting fixtures - a combination of intelligent moving lights and traditional theatre followspots. In charge of making those decisions is Enrico Bagnoli. "I had a lot of freedom with the lighting design due to the theatre being built from scratch," he said. "When discussions about the project began back in 2013, I quickly had to decide what equipment would be needed - exact fixtures."

The lighting design for La Perle wasn't a straightforward task, although a beautiful theatre it isn't symmetrical and it isn't linear, instead it's full of curves, which presents many problems. Add the need for the fixtures to be silent or very quiet

TECHNICAL INFORMATION

SOUND

48 x L-Acoustics KARAi loudspeaker; 2 x L-Acoustics Syva new colinear system; 6 x L-Acoustics SB18 subwoofer; 10 x L-Acoustics SB28 subwoofer; 15 x L-Acoustics LA8 amplified controller; 4 x L-Acoustics LA4X amplified controller; 1 x DiGiCo SD10 console; 1 x DiGiCo SD7 console; 1 x DiGiCoSD-MINI Rack; 1 x DiGiCo D-Rack; 1 x DiGiCo Waves SoundGrid; 1 x Optocore DD4 module; 3 x Optocore DD2 module; 46 x Meyer Sound MM4-XP loudspeaker; 6 x Meyer Sound UP4-XP loudspeaker; 34 x Meyer Sound UPM-1P loudspeaker; 6 x Meyer Sound UPJ-1P loudspeaker; 6 x Meyer Sound UPJ-1P loudspeaker; 24 x Meyer Sound UPQ-1P loudspeaker; 2 x Meyer Sound Acheron 80 cinema loudspeaker; 2 x Meyer Sound Acheron 100 cinema loudspeaker; 12 x Meyer Sound 500-HP subwoofer; 3 x Meyer Sound 1100-LFC subwoofer; 3 x Meyer Sound DCP-72 D-Mitri processor; 1 x Meyer Sound DCM-4 D-Mitri matrix; 3 x Meyer Sound Galileo 616 processor; 1 x Soundcraft Vi3000 monitor console; 8 x K-array KP102 loudspeaker; 4 x K-array Anakonda KAN200+ subwoofer; 4 x K-array KA84 amplifier; 1 x BSS Soundweb London BLU-806 processor; 6 x 1 x BSS Soundweb London BLU-160 processor; 3 x Shure ULXD4Q wireless microphone receiver; 10 x Shure ULXD1 wireless bodypack transmitter; 2 x Shure ULXD2/SM58 wireless handheld transmitter; 2 x Shure PSM1000 P10T IEM transmitter; 6 x Shure PSM1000 P10R IEM receiver; 2 x Shure PSM900 P9T IFB transmitter; 12 x Shure PSM900 P9RA IFB receiver; 4 x Clear-Com RCS-2700 Analog Party Line Intercom Matrix; 4 x Clear-Com RM-704 four-channel mainstation; 4 x Clear-Com RM-702 two-channel mainstation; 32 x Clear-Com RS-702 two-channel belt pack; 8 x Clear-Com 110/490 gooseneck microphone; Sennheiser, Shure, AKG, beyerdynamic, Neumann and DPA microphones for the band

LIGHTING, VISUAL & EFFECTS

4 x Clay Paky Sharpy moving head; 28 x Clay Paky Super Sharpy moving head; 41 x Clay Paky Alpha Profile 1500 moving head; 20 x Clay Paky Alpha Profile 800 moving head; 21 x Clay Paky Alpha Wash 1500 moving head; 4 x Clay Paky Alpha Beam 1500 moving head; 14 x Clay Paky A.leda B-EYE moving head; 48 x Studio Due's City Color cyclorama fixture; 40 x ETC Source Four fixture; 1 x MA Lighting grandMA console; 4 x Barco HDQ 2K40 DLP projector; 20 x Barco HDF W-26 projector; 2 x VYV Photon controller; 9 x VYV Photon media server; 2 x VYV Photon remote handheld controller; 1 x ShowTex 11-metre by 27-metre ShowLED Chameleon Starcloth; ShowTex Delta and Bravo velvet curtains; 1 x ShowTex 23-metres high by 24-metres wide DMX chaintrack with black curtain; 1 x ShowTex's anodised aluminum spirelli curtain

laperle.com



• Above Audience members can't see any of the ShowTex curtains as they are made from black masking fabrics.

- a normal requirement in any theatrical space - and it's easy to see why a veteran LD like Enrico was brought in. "In theatres, operation noise is 90% of the problem you face, fixtures simply have to be quiet. You need moving heads, but you need silence so when a company manufactures a spot with good optics and silent operation - it becomes one of my go-to fixtures," he said.

A large Clay Paky inventory has been specified for La Perle including Sharpys, Super Sharpys, Alpha Profile 1500's, Alpha Profile 800's, Alpha Wash 1500's, Alpha Beam 1500's. "Back in 2013 when the fixtures were selected, these were the best in class, however, as with anything, technology moves on and newer models were available when we were installing. To be honest though, I prefer the older fixtures that have maturity for this project. I would not have chosen a brand new product with no references. It takes a while to fine tune the fixtures to the environment- the heat and humidity being the obstacles in this case," Enrico added.

Clay Paky A.leda B-EYE's are also at home in La Perle. "The B-EYE's work well in a small space and particularly well for atmospherics, with the use of a little smoke. It's a wash fixture but also has a sharp focus so it's quite a spectacular fixture," he continued. Enrico chosen another Italian manufacturers for the cyclorama fixtures, Studio Due's City Color, selected simply due to the product's incredible reputation. Theatrical fixtures came in the form of the industry standard ETC Source Fours, and the pool was lit too, using IP68-rated Anolis LED lights. "For all the brands

I selected, I took into account the after sales packages, as this is important to me. I wanted companies with an office and service here in Dubai."

Controlling the intelligent lighting is yet another industry standard, an MA Lighting grandMA. "For this kind of level of project you need a high-end, rider friendly product and it can handle four DMX universes," Enrico said. Completely integrating the lighting with the video is probably the biggest problem to overcome - there is always conflict between the two - but having a control platform such as the grandMA equipped Enrico with the best tools to overcome that challenge.

Last but not least, the attention turns to ShowTex Middle East, a company that can't be categorised into a single discipline, as its creations are so varied, but this project would not have been complete without it. Downstage, ShowTex manufactured and installed a giant 11-metre by 27-metre ShowLED Chameleon Starcloth, which is hung in a curved configuration to enhance the infinity effect. The LED RGB Starcloth is fully DMX controllable via the grandMA.

Managing Partner of Showtex Middle East, Sven Peeters and his team also supplied a large amount of black masking fabrics, mainly the brand new velours - Delta and Bravo. Sven expanded: "The beautiful thing about this new velvet is that it has a unique width of 210cm, it is inherently flame retardant, beautifully black and ideal for use in humid enclosed environments like theatres with water effects and theme parks due to its absolute minimal shrinkage factor. Audience members will

not be able to see the curtains at La Perle, meaning we succeeded in our mission to hide the technical systems in the theatre." One of the masterpieces ShowTex supplied is a complex DMX chaintrack with a huge black curtain that is tabbed in and out to give the massive decorative gate transparency or blackout. It is running behind the aforementioned gate and follows it when it closes and opens behind it to give a transparent effect, allowing the audience to see the LED wall behind it. "It is possibly the heaviest and tallest curtain ever moved on a chaintrack," continued Sven. "It's a whopping 23-metres high by 24-metres wide which folds up in an incredibly tight space, thanks to the ingenious chaintrack continuous loop system. The system is tied into the overall show control."

The central sphere that hangs from the ceiling is a focal point of the show and to help create it Dragone turned to ShowTex's anodised aluminum spirelli curtain. Once again, it was at the large end of the scale measuring 13-metres in height with a nine-metre radius. Behind the spirelli is a laservoile, this creates a beautiful halo effect to further enhance the desired look and feel of the show. Additionally, the Dragone team used ShowTex's transonic velvet, which masks out loudspeakers without audible loss of sound quality. And La Perle also makes use of several kabuki releases for dropping cables and scenic rope elements.

With the doors to La Perle officially opened on 31 August, the response has been extremely positive, with many reviews citing the show as 'a visual masterpiece'. 🌟