

Case Study

Projections reveal an underwater world at Milan Expo



LM Productions creates breath-taking visual experiences worldwide, specialising in large scale and full-dome projection, inflatable venues and developing innovative interactive solutions for exhibitions and corporate events.

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Industry: Tourism

Region: Italy

Installation Company:

LM Productions

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Type of Solution: Two Proscene Projectors EH7700 with WT1 short throw lenses and Chameleon GB200s plus a number of smaller projectors showing life in Oman and Qatar.

Challenge: LM Productions was commissioned to create spectacular scenes within the Oman Pavilion and Qatar Pavilion at the Milan Expo that will run for six months from 1 May to 31 October 2015.

Solution: Two breathtaking scenes were created within the Oman Pavilion - a virtual reality underwater landscape in the Arabian Sea and a projection of a Middle Eastern kitchen. Projections were used in the Qatar Pavilion to create virtual hostesses, a virtual holographic book and video globes.

Results: Stephen Harvey, Managing Director of LM Productions, said: "The projections provided movement and real interest in the pavilions to capture the attention and imagination of visitors."

The virtual reality underwater scene portrays the marine biodiversity in the Arabian Sea off the Oman coast. Visitors walk into the scenes and interact with the marine life as sea creatures swim all around them.

Challenge

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Milan Expo: feeding the Planet – energy for life has transformed Italy's second largest city into a global showcase. More than 140 countries show how technology can guarantee healthy, safe and sufficient food for everyone, while respecting the Planet and its equilibrium. Over the six months the Expo is predicted to welcome over 20 million visitors to its 1.1 million square metre exhibition area.



The first Expo took place in The Crystal Palace, London, in 1851 and has been the driving force behind cultural symbols of our time, like the Eiffel tower which was built in Paris when the city hosted the Exposition in 1889. Since the first edition in London in 1851, these world fairs have attracted a huge number of visitors. Worldwide interest continues to grow with the number of visitors rising: Hannover 2000 (19 million), Aichi 2005 (22 million) and Shanghai 2010 (73 million). This major Universal Expo now takes place every five years.

Expo 2015 gives visitors the opportunity to find out about, and taste, the world's best dishes, while discovering the agri-food and gastronomic traditions of each of the exhibitor countries.

Oman is one of the driest areas on the planet. Faced with a constant shortage of water, proper management and distribution of water resources has become of utmost priority. The pavilion needed to convey the care with which the Omanis protect, manage and preserve water as a vital and precious resource.

Qatar is a desert country, made up of long stretches of sand and dunes, whose inhabitants have always sought creative ways to address the challenges of a lack of food and water. The installation in the Qatar Pavilion had to create an oasis of innovation, invention, energy, industry and green technologies. It needed to be spectacular while reflecting Qatar's work and commitment in securing safe, healthy and convenient food.





Equipment list:

- > 2x EH7700 projectors
- > 2x WT1 lenses
- > 2x Chameleon GB200
- > 2x DX345 projectors
- > 2x W316ST projectors
- > 3x X306ST projectors
- > DH1008 projector

The solution

Working with Qatar National Pavilion Committee, Paradigm & Partners and City Neon Bahrain, Eastbourne-based LM Productions created two breathtaking scenes within the Oman Pavilion. One is a virtual reality underwater landscape in the Arabian Sea where visitors feel they are walking through artificial coral reefs and interact with turtles, dolphins and fish swimming around them. The other shows daily life in an Omani kitchen. The back part of this scene is high quality video projection that merges into a real kitchen in a seamless continuation of the set. This gives the illusion of an Omani lady preparing food for the family.

The underwater installation shows the landmark project taking place in Qatari waters to restore ailing coral reefs lost to decades of aggressive coastal work and marine pollution. Since 2002 more than 1,000 artificial environment-friendly reefs have been created to encourage fish settlements and stimulate ecosystems that help coral growth.

The content for both scenes are projected by powerful Optoma ProScene EH7700 projectors. The marine environment is projected onto a semi-circular screen. This is blended by the Chameleon GB200 which ensured the black levels are consistent all the way around the curved projection. As the guests walk in front of the large curved screen they trigger different underwater scenes allowing the guests to interact with different marine life found in the waters off Oman.



The projection in the Middle Eastern kitchen is integrated into the kitchen's back wall via a custom made seamless high gain projection screen and shows an Omani lady cooking and preparing typical Arabian food.

Stephen Harvey, Managing Director of LM Productions, said: "The EH7700 is a remarkably robust projector with an excellent picture quality and contrast. The image quality of the projector is as important to us as is its reliability. It will be operational at the Expo seven days a week for six months, so it was essential we choose a unit that is absolutely reliable.

"We use the Chameleon GB200 regularly for installations that need edge blending or projection mapping onto irregular shapes."

Two smaller XGA projectors were also used in the Oman Pavilion. The lightweight DX345 projectors were used to project a beekeeper's face and a fisherman's face onto mannequins. English and Italian subtitles were shown on the screen next to the mannequins along with a high quality soundscape that brings the exhibits to life.

At the entrance to the Qatar Pavilion two short throw W316ST projectors were used to create virtual hostesses (a mother and child) greeting guests as they enter. Visitors can flick through a virtual holographic book thanks to another projection from the Full HD and lightweight DH1008. Finally, as the guests are guided through the pavilion, three different sized video globes explain how Qatar manages its food imports and food security via a projection from three short throw X306ST projectors.





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The virtual reality underwater scene portrays the marine biodiversity in the Arabian Sea off the Oman coast. Visitors walk into the virtual reality scenes and interact with the marine life as sea creatures swim all around them. It goes on to show sustainable fishing methods and how the fish are caught, cooked and served as food.

The Results

Stephen commented: “The installations look absolutely brilliant and show the vital work both Qatar and Oman are doing in this regards, as well as providing a truly educational experience for young and old.”

He added: “The 2015 Milan Expo is truly impressive. Each of the 145 countries at the Expo has its own pavilion with its interpretation of the theme. These installations really push the boundaries for design and architecture.”





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