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Changing the design for *Clusters of Light*



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Changing Clusters

The week-long second run of *Clusters of Light* required a new audio design for a different style of venue with a very tight timescale to get everything ready. **James Ling** reports

CHANGING THE STAGING OF A

show from a 360-degree arrangement to 180-degrees can have a profound effect on the way audio content is delivered to the audience. The job of the sound designer is always to make these changes enhance the show. This was just one of the challenges faced by Scott Willsallen and the audio team behind the second run of *Clusters of Light*.

Clusters of Light was originally created for the Sharjah Media Centre as the first event of the 2014 Sharjah Islamic Culture Capital programme. The musical show tells the story of the Prophet Mohammed from his birth until his passing and the original production took place in a purpose-built amphitheatre. The venue offered the opportunity to include surround effects to manipulate the audience experience and this was used to great effect by the original audio team.

Fast-forward to 2015 and a second run of the show was commissioned. 'The Sharjah Media Centre gifted a one week season of the show to the Egyptian government,' begins Scott Willsallen, director of Auditoria and audio director and designer for *Clusters of Light*. 'With a really short lead time, we were given confirmation of the dates and tasked with designing it and providing the operational team onsite. The lead time was so tight that when we were given a yes, the production had people on the ground within two days.'

The show was scheduled to take place at the 30 June Stadium in Cairo. As such, it required a complete rethink of the audio design. 'The setup was vastly different mainly because the venue was so different. Where the audience used to wrap around the front of the stage, the front row of the audience was now 35m away from the front of the stage. The stage was in the middle of the

football field and the audience was seated in the grandstand,' explains Mr Willsallen.

'The audience were quite a long way away which gave a totally different perspective on the show visually and from an audio point of view,' he continues. 'Where in Sharjah it was a circular arrangement for the PA, this time we couldn't really do that. This was in a stadium grandstand with no good location for the rear and rear-side sources that we had in Sharjah.'

To cope with this different format, the design was flattened out into a

180-degree arrangement of nine sources. 'The main stage itself was exactly the same as in Sharjah and then there was the left, centre and right loudspeaker arrays along the top of the wall. That same arrangement continued left and right, so there were an additional three arrays either side of the stage. That gave us nine sources spread out over 180-degrees,' recalls Mr Willsallen.

'We had to re-do much of the surround effects content to suit this new 180-degree arrangement rather than a 360-degree arrangement that the content was originally produced for and it actually worked really well. A few elements were not quite as effective just because we really needed the rear localisation, but in these examples we changed the content to deliver an experience optimised to the loudspeaker layout, whilst still supporting the creative intent. Other parts of the show were actually more interesting and enveloping due to the increased detail in the front 180-degrees. It worked really well in that regard.'

The left, centre and right arrays mounted above the rear wall of the stage are the most important sources as they contain the majority of the sound effects content used



The visuals are the key element of the show

to support the massive projection of scenery and action on the rear wall. Given the short timeframe to deliver this project, the key was to ensure that no content changes were required for these three sources. There is a staggering amount of detail in the sound effects for these arrays and the only difference between Sharjah and Cairo in this regard was the change from using Kara to V-Dosc to account for the greater throw distance.

'Tying in with the visual aspects was much the same. Because the frame of the stage itself didn't change and the number of sources we were using around the stage didn't change, that relationship was exactly the same,' continues Mr Willsallen. 'It probably worked a little bit better only because the audience were further away so it was easier to capture the visual scale of the show. In some respects the intimacy of the show was reduced, but the visual spectacle of a 40m wide by 12m high projection was more visually enveloping when viewed from a greater distance.

While the change in venue style led to some alterations to the sound design, this was not the only reason for a fresh look at the setup. 'The sound design change wasn't just to suit the different venue, it was also to suit the fact that 50 per cent of the



The performance relied on L-Acoustics speakers

To achieve this, Mr Willsallen turned to some of his regular contacts with Agora in Italy and Delta Sound in the UK and Dubai. 'We've worked with all these guys before on lots of events' he says. 'It's good to keep these relationships going, it means you can respond to things quicker and suggest the kind of budget we need to allow for something without really having time to ask "what's this going

Miranda looking after replay, Richard Sharratt mixing it and then Shannon Gobell as our project manager.'

One of the advantages of working with a team of close contacts is when challenges do occur, solutions can quickly be found. 'Originally the loudspeaker system was due to come from Italy because it was the shortest sea freight window,' recalls Mr Willsallen. 'We worked out a deal between Delta and Agora and the equipment was prepped very quickly. But unfortunately due to various bits of bureaucracy, getting the equipment out on sea freight was far too slow. So a half built system sitting in containers in Italy was very quickly swapped for a pile of V-Dosc sitting in the UK being thrown on the back of a truck and sent on its way.

'There was lots of very quick preparing and sending of heavy things,' he continues. 'They had containers being loaded full of the specialist scaffolding that they use for complex parts of the stage build to make sure it hit the sea freight window to get it onto site on time. The DiGiCo control systems were air freighted over from Italy, the UK or Dubai. Most of the control system came out of Dubai in the end with supporting kit from Italy.'

In terms of the gear used, the short timeframe meant Mr Willsallen needed to be flexible with the equipment he specified for the show. 'L-Acoustics K2 was the preferred system. In terms of coverage and sound pressure level, V-Dosc is a perfectly fine substitute. In terms of hanging it and handling it, K2 is far more pleasant because it's almost half the weight,' he states. 'Really it was what we could get our hands on in the timeframe that was still going to sound really good out of the UK and V-Dosc was the answer.

'The three centre hangs had eight V-Dosc in each and then the other three, either side of the stage, were hangs of six V-Dosc,' explains Mr Willsallen. 'On the floor for the music

and vocals we had four ground stacks of five K2.'

Despite this enforced change to the equipment, as well as the altered audio design, Mr Willsallen is pleased with how the show sounded. 'The PA sounded great as it does, the coverage was great, the imaging worked really nicely - the left, centre, right and across the screen and the K2 on the floor for music all sounded fantastic. A really big pile of 15 SB28s upstage centre for low frequency effects worked well also,' he smiles. 'When you consider that there were something like 77 V-Dosc being used for all the sound effects and a grand total of 20 K2 being used for all of the music and all of the vocals, it was a very little PA to cover the number of people. It worked really nicely and sounded fantastic. There was lots of detail in the vocals, even over a 55m throw



A DiGiCo SD7 was used at FOH

show content had been modified,' reveals Mr Willsallen. 'The extent of the vision content changes were not clear until we arrived onsite, and continued to be updated and enhanced during the brief rehearsal period. We had to update our sound effects content to support the new vision content and keep up with the changes as quickly as possible.

'The way we managed that was one of the sound designers we use in Sydney regularly, Steve Logan, was in an overnight time zone for us,' he continues. 'We sent him new video updates and asked him to deliver some content for these new segments. The next morning we would wake up and have the new segments uploaded and ready to go. We actually turned all of that redesign around pretty fast.'

Of course, while the sound design was a major challenge, perhaps the most critical was actually being able to supply the show in the first place.



Four ground-stacks of five K2 were used for music and vocals

to cost?' and then know that you're not going to be too far off.

'You also know that you can keep the crew numbers down. If you know that you've got the right people you can do the work with fewer of them,' continues Mr Willsallen. 'We had a combination of people from Agora, Delta Dubai and from Auditoria. Most of the crew were from Delta Dubai, we had one engineer from Agora and then from Auditoria I had myself, Luis



The three centre hangs had eight V-Dosc in each



Racked equipment from L-Acoustics, DiGiCo and Sennheiser

from the PA to the back row, so I was really happy with it.'

Reflecting on the week-long second run, Mr Willsallen feels the show has proven itself capable of being transferred into different environments. 'I think it looks fine as a stadium show and it works well as an amphitheatre show. I was a bit nervous heading into it that we would lose too much going into a much bigger venue where the audience was so far away, but it actually worked really well,' he reasons. 'The content is beautiful. It's very well written and well-orchestrated. It's well played, well recorded and well mixed. Any time that you are working with good content you are always up for a more satisfying experience.'

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