



Posted on September 14, 2022





L-Acoustics Syva and X Series, we were able to create a unique and immersive atmosphere for each specific area in the Samurai Museum's modern and open room architecture.

From fearsome masks to fascinating armour, Syva and X Series sound systems help create interactive installations that explore the myths, stories, and reality of samurai art

Berlin, Germany - September 2022 - Europe's first museum dedicated exclusively to samurai history and culture, the Samurai Museum is the setting for more than 1,000 artefacts collected over 30 years by German entrepreneur Peter Janssen. The museum, situated in Berlin's main gallery district, opened its doors in May this year and has already made quite an impression on its visitors, with some calling it a 'must-go place for any fans of Japanese culture'. Featuring state-of-the-art technology and multimedia installations that bring the exhibits to life, the audio experience is delivered by L-Acoustics Syva and X Series sound systems, designed by consulting firm MMT-Network and installed by system integrator PIK AG.





L-Acoustics X4i was chosen for the Nō Theatre, providing powerful sound while remaining almost invisible.

Composer, producer and music director Christian Steinhäuser asked Ralf Bauer-Diefenbach, managing director at MMT-Network, to help with the conceptual design of the audio system. "Artistic projects like the Samurai Museum require extensive knowledge in content interaction, architecture, room acoustics and audio," says Bauer-Diefenbach. "The client and the architects are very design-oriented, so one of the key challenges Christian and I faced was to design a sound system that would offer perfect directivity, level and frequency response, while also fitting in well with the architecture and design of the venue."



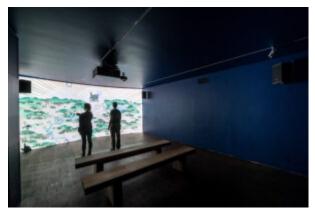
The L-Acoustics X4i installed inside the



stage lip of the No Theatre.

Bauer-Diefenbach and Steinhäuser collaborated with the museum's architects and Ars Electronica Linz GmbH, an Austrian cultural, educational and scientific institute active in the field of new media art, to plan the optimal components using a complex acoustic computer model.

Once the audio concept was complete, PIK AG was brought on board to perform the system installation and configuration work onsite.



The cinema room's projections and touchscreens are enhanced with audio via X8 and Syva Sub.

"Having worked with MMT-Network on several projects in the past, we were thrilled to be involved," says Silvia Weise, Technical Project Manager at PIK AG. "As a system integrator in Berlin and other cities across Germany, we knew L-Acoustics would be perfect for a complex project like the Samurai Museum. The flexibility that L-Acoustics technology offers to sound designers as well as its excellent transparency were vital in creating sound experiences that immerse the visitor and maximize the visual impression of the exhibits."





The Japanese Desk exhibit features L-Acoustics X4i along with Syva and Syva Sub.

The museum covers 1,500 square metres, within which L-Acoustics Syva and X Series are installed in five different exhibit areas. A combination of room acoustics and cleverly designed audio systems were used to create discrete acoustical spaces for each exhibit.

"The Samurai Museum has a modern and open room architecture, with only a few doors and walls separating the exhibition areas and their glass display cases," Weise notes. "By using L-Acoustics Syva and X Series, we were able to create a unique and immersive atmosphere for each area within the exhibition, without spilling over into neighbouring exhibits. To achieve this, the sound pressure level can't be too high, so the audio has to deliver impact with clarity and transparency. L-Acoustics does this beautifully!"





Close up of the Japanese Desk's X4i.

A unique feature of the Samurai Museum Berlin is the $N\bar{o}$ Theatre a classical 14^{th} century wood structure built by traditional carpenters in Japan, then shipped to Berlin. Here, the diminutive yet powerful X4i coaxial speaker was chosen to provide powerful sound while remaining almost invisible. Installed inside the stage lip, they are complemented by a Syva Sub.

The interactive multimedia installation in the cinema room features projections and touchscreens enhanced with audio which is delivered through four compact X8 cabinets and a further Syva Sub, again designed to melt into the venue's décor. Here, visitors get a captivating insight into how the samurai have shaped the history of Japan through the centuries, learn about the supernatural Yokai of Japanese folklore, and follow the labour-intensive process of Japanese sword making.





Faces of Battle features X4i, Syva and Syva Sub.

The Japanese Desk exhibit features two Syva cabinets, their elegant form enhancing the exhibit whilst delivering crystal clear vocals and smooth horizontal polar pattern,. Four X4i cabinets and a Syva Sub complete the sound system in this area.

Finally, the Faces of Battle and Sword Production exhibits immerse visitors in the fascinating world of Japan's legendary warriors and offer a closer look into the extraordinary skill of traditional Japanese craftsmanship. They have each been equipped with two Syva cabinets, a Syva Sub and four X4i.

A single AVB network covers the entire space which, Weise says, makes it very easy to monitor the system. Content is played and distributed from two PC/Macs via an AVB interface. The system is controlled by LA12Xi amplified controllers, which are all handily located at the exhibition objects, meaning it was only necessary to install a single CAT7 cable between the server room and the exhibits.





Sword Protection with audio delivered via L-Acoustics X4i, Syva and Syva Sub .

The AVB network offers additional benefits for controlling the audio across the different areas. This came to the fore when the decision was made for two adjacent spaces, the Nō Theatre and Faces of Battle, to have sound effects playing at different times. "Having it all mapped on one AVB network makes it very easy to accomplish this task," says Weise.

"I was delighted that L-Acoustics was chosen for the Samurai Museum," concludes Sebastian Wittrock, L-Acoustics Sales Manager DACH. "Working with PIK AG and MMT-Network, alongside the Samurai Museum team was wondeful but the real pleasure is seeing the fantastic results of the team's efforts in the success of the museum"

Recalling her experience of working on the project and the support the PIK AG team received from L-Acoustics, Weise notes that both experiences were equally enjoyable.

"Once again, L-Acoustics offered us great support, ensured everything we needed arrived in time for the installation, and supported us during the final configuration process," she adds. "We also really enjoyed working with the MMT-Networks team and the museum staff. The cooperation between the teams was exemplary with everyone coming together to execute their part flawlessly. This resulted in an absolutely unique exhibition experience, both visually and acoustically!"