CASE STUDY

Visions of Alvar Aalto, Finlandia Hall

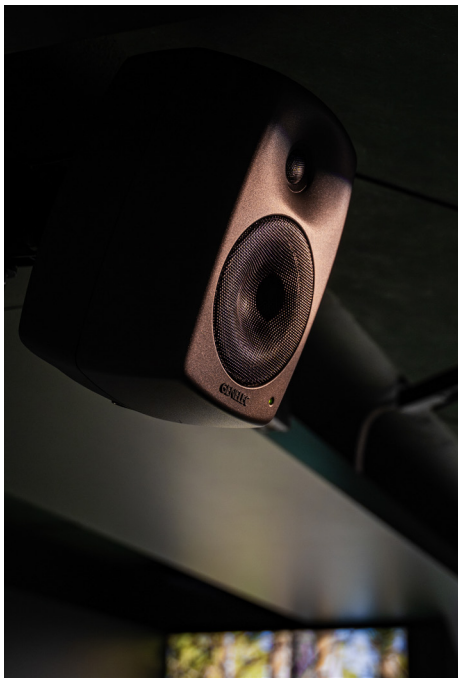
HELSINKI, FINLAND

Genelec Smart IP shapes new immersive exhibition at Finlandia Hall in Helsinki

GENELEC®

FINLANDIA HALL REIMAGINED

Designed by Finnish architect Alvar Aalto, Finlandia Hall was commissioned as Helsinki's concert and congress building back in 1962. Taking nine years to design and construct, the hall has stood for over fifty years as a versatile events venue known for its modernist use of light and geometry. During a major renovation of the building's infrastructure between 2022 and 2025, the idea emerged to open Finlandia Hall more widely to locals and tourists. *Visions of Alvar Aalto*, an immersive exhibition detailing Aalto's creativity and influence on Finnish architecture and design, would offer a new reason to visit Finlandia Hall while bringing greater attention to its architectural heritage.



Wanting the exhibition to make a lasting impression on visitors, Finlandia Hall's technical team was tasked with developing an experience that would emotionally engage guests as they journey through Aalto's life and work. "The concept was to create an exhibition that showcases Aalto's work while giving visitors something meaningful to take away for themselves,"

says Ilari Suonpää, Technical Manager at Finlandia Hall. ‘Technology, particularly audio, would therefore play a crucial role in creating an immersive soundscape that complements and enhances the visual exhibit.” Finnish loudspeaker manufacturer Genelec would provide the ideal sound solution with its Smart IP loudspeaker series, combining high-performance audio with the flexibility required for an evolving exhibition environment.

CRAFTING THE EXPERIENCE

Immersive audio and content specialist Aki Päivärinne of OiOi Collective was approached by the exhibition’s architect and technical team to join the project as lead sound designer. “I had been familiar with the works of Alvar, Aino and Elissa Aalto previously, but through joining this project, I explored their work more deeply to discover the core components of the art,” says Aki Päivärinne. “Light plays a leading role, often bringing nature indoors through large windows and open spaces. It creates a sense of rhythm and movement, and I wanted to reflect those qualities through sound. By using spatial audio, we could emphasise these connections to create an environment that helps tell Aalto’s story.”

Päivärinne designed an audio soundscape that flows through each zone, from a spectacular introduction to Aalto’s use of light and materials, to a serene forest environment and a hands-on interactive space that invites visitors to engage with his work. “I wanted to achieve a balanced soundscape that keeps visitors immersed as they move through Aalto’s story,” continues Päivärinne. “The audio solution would need to deliver crystal-clear playback to ensure every detail can be heard wherever visitors are standing.”

Not only did the sound system need to translate Päivärinne’s sonic vision into reality, but it also needed to support the overall exhibition design. Audio-visual

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integration specialist, 4Business Oy, was enlisted to carry out the physical installation. “When the space was being renovated, the exhibition layout had not been finalised,” adds Nathan Hayward, Project Manager at 4Business. “A flexible cabling and deployment system was essential to accommodate the evolving plans and to allow future scalability.”

ARCHITECTURE IN SOUND

“Working with a sound system I’m familiar with gives me more flexibility to play around when designing and mixing the audio content,” Päivärinne explains. “Genelec Smart IP is a system I trust to deliver premium sound quality while adapting to evolving environments. I recommended the system to Finlandia’s technical team, leading to the purchase of fifty-four Smart IP loudspeakers.”

The choice of Genelec Smart IP loudspeakers was driven not only by their sonic performance but also by their ability to integrate seamlessly into the exhibition’s visual architectural language. Across the installation, forty-seven powerful 4430 loudspeakers blend into each

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environment, utilising Genelec's custom RAL colour options to match each zone, while seven 4436 pendant models become part of the visual aesthetic, reflecting Aalto's own approach to light, space, and materiality.

"My inspiration came from Alvar Aalto's use of ceiling windows and hanging elements to shape how light moves," states Päivärinne. "This led to a space called 'Power of Light', in which the sound of piano chords mimics dancing rays of light. It seemed a clear aesthetic choice to use Genelec's pendant Smart IP loudspeakers here as they distribute sound into the room in the same manner as Aalto's light concepts." Hung from the ceiling, the 4436 pendants create an intimate and focused listening experience with their downward-firing design directing the soundscape towards visitors below.

Across the remaining exhibition zones, wall- and ceiling-mounted 4430 Smart IP loudspeakers form the foundation of Paivarinne's spatial audio design, with each zone using custom RAL colours to match the renovated spaces. Visitors are introduced to the exhibition in 'Prelude', where five Cobalt Blue (RAL 5013) 4430s deliver a custom arrangement of Jean Sibelius' Finlandia, performed by the Youth Choir of Sibelius Upper Secondary School.

Nine Tarpaulin Grey (RAL 7010) 4430s guide visitors to the next area with the sounds of a flowing creek and woodland, creating a transition towards the 'Land of Forests'. Here, eleven Black 4430s are mounted around the edge of the ceiling to immerse visitors in a calming, forest-inspired soundscape. "The loudspeakers are positioned in a surround sound configuration to create spatial audio, with unique sonic elements emerging from different points within the space, complementing the video content and interactive touchscreen displays," notes Nathan Hayward.

In ‘Together’, a zone that explores Aalto’s relationships and creative collaborations, eighteen Traffic Grey (RAL 7042) 4430s provide detailed audio quality for a human-centred soundscape. “This space features sounds of pencil sketching, distant piano and other environmental elements that relate to Aalto’s life,” describes Päivärinne. “At the other end of this area, visitors watch a short film featuring the Finlandia hymn recorded by the International Youth Choir, with the 4430s ensuring every detail of the audio is clearly reproduced without overpowering the space.”

Finally, ‘My Aalto’ uses four White 4430s mounted on floor-stands to disperse a calm, creative soundscape into the centre of the room where visitors can interact with Aalto’s materials and ideas. The audio environment provides a subtle sonic backdrop that supports exploration and creative engagement with the space.

While the largest of Genelec’s Smart IP range, the 4430 cabinets do not distract from the visual integrity of the exhibition. The custom RAL finishes allow the loudspeakers to sit naturally within the building’s

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architecture, mirroring Alvar Aalto's own work. "The recent renovation was a big consideration during the physical installation," says Hayward. "Smart IP's single network cable for audio, power, and control allowed the loudspeakers to be easily positioned and reconfigured as the exhibition concept developed. A conventional active or passive loudspeaker system would have required separate power and audio cabling, potentially increasing infrastructure and limiting design adaptability."

For most zones, audio files were stored and played from a Q-SYS processor, with content either played continuously on a loop or synchronised with video using LTC. Audio was then matrixed to the appropriate areas, with individual Dante outputs mapped to each Genelec loudspeaker to ensure the correct content was delivered to each zone over a single CAT cable. Q-SYS also managed the overall playback sequence, sending TCP/IP commands to the PIXILAB Blocks server to wake and start the relevant media players. In two zones, PIXILAB Blocks connected directly to the 4430A analogue inputs, with the loudspeakers powered via PoE injectors.

AN IMMERSIVE LEGACY

Blending video content, spatial audio, and the building itself, the *Visions of Alvar Aalto* exhibition has given people a new reason to visit Finlandia Hall. "The client now has a robust and reliable audio solution that's easy to adapt and scale as the exhibition grows," comments Hayward. "Aki Päivärinne's soundscape is present throughout the space, immersing visitors in the essence of Aalto's work."

"The dialogue between the different teams has been collaborative and efficient, and the end result is a true reflection of what we've achieved together," expresses Päivärinne. "Multichannel audio has an increasingly important role to play in immersive exhibitions. With Genelec Smart IP, we were able to make sound an

integral part of the storytelling, deepening the narrative and inviting visitors to experience Aalto's work while discovering the architectural heritage of Finlandia Hall."

"Since opening, we have been delighted by the response to the exhibition and the interest it has generated," concludes Ilari Suonpää. "It has exceeded our expectations in many ways, and, most importantly, it has achieved what we set out to do: create a compelling new reason for people to visit Finlandia Hall and encourage them to return. Seeing visitors respond to the soundscape and experience the exhibition in their own way has been particularly rewarding."

THE DETAILS

Client
Finlandia Hall

Sound Design
OiOi Collective Oy

Integrator
4Business Oy

Genelec Distributor
4Business Oy

Loudspeakers
- 7 x 4436A
- 5 x 4430A RAL 5013
- 18 x 4430 RAL 7042
- 9 x 4430 RAL 7010
- 11 x 4430A Black
- 4 x 4430A White

Audio, show and control
Q-SYS

Media
PIXILAB Blocks

Network
Dante