

## V&A London Cars Exhibition

Complete

Area

Client

Architect

2019

UK England

V&A Museum  
London

OMMX Ltd

“Cars: Accelerating the modern world” is a limited exhibition lasting 21 weeks within the Sainsbury Gallery of the renowned Victoria and Albert Museum of London. The exhibition features 15 different cars depicting the automobile’s influence on design, culture and human behaviour alongside over 200 car-related objects as curated by museum researchers.

The gallery’s 1110 sq. m space is divided into three main sections, each containing a number of subsections. The display comes to life through playful sets and props which build a picture of the car as the archetype of modern manufacturing. Utilising a diverse collection of digital and graphic informational visualisations, the majority of the subsections incorporated AV systems with amplified speech and sounds.



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Sandy Brown was appointed to provide acoustic advice on the design of the exhibition. The key acoustic consideration for transformation of the gallery was providing optimum acoustic separation between the various sections. This was required to prevent the multiple audio elements of speech and sound causing disturbance to adjacent sections.



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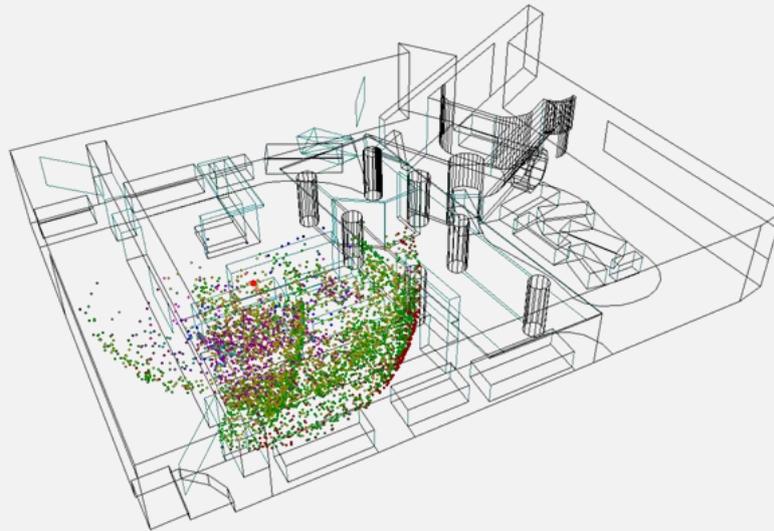
The three major factors that were considered to help control noise spill and maximise acoustic separation were:

- Screening: use of screens to control sound between spaces with high-density cores to improve separation between semi-closed spaces
- Reverberation time of the space: where the more reverberant a space is, the higher the sound transfer between zones and the lower speech intelligibility is
- Loudspeakers: careful selection of loudspeaker directivity to control the sound field and minimise overspill to adjacent zones

The team made recommendations on the use of sound absorbent finishes, helping to control reverberation and sound reflections between different sections of the exhibition. This also improved the speech intelligibility and clarity for amplified AV content.

Noise modelling software was utilised to assess the benefit of the different design measures on noise transfer between the different sections. A detailed acoustic model of the space was built including each of the proposed loudspeakers, so that the spread of sound and intelligibility of amplified speech could be assessed.

To assist the client in determining the benefit of the recommendations, auralisations were used to let them hear each section would sound.



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A number of design recommendations were incorporated into the AV installation to help provide the most accessible audio experience. This included use of subtitles for speech and phasing of audio content in adjacent sections to mitigate disturbance from intrusive sounds. Additionally, recommended sound pressure levels for each section were provided which were subsequently used as a basis for commissioning.

Through the careful consideration of many design elements and the detailed analysis of the benefits, the client was able to make clear decisions on the design of the exhibition. This helped create an engaging, dynamic and immersive acoustic environment to support the other elements of the exhibition design.



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