

# *Travelling through the Fog*

**Duration:** 8 minutes 51 seconds  
**Format:** Fixed Composition - 12-channel surround sound array + IKO loudspeaker  
**Venue:** Cutty Sark  
**World Premiere:** Wednesday 25 June 2026



Image Credit: Sam Walton

## **Abstract**

*Travelling through the Fog* is a site-responsive spatial sound work developed for the historic vessel Cutty Sark. The composition explores the relationship between object and environment through a multi-channel diffusion system centred around the IKO loudspeaker.

The work treats the ship itself as both container and instrument. The IKO functions as the sonic body of the vessel: sound materials are derived directly from the ship's physical structure through contact recordings of timbers, hull, rigging, resonances, impacts, and internal vibrations. These materials are activated and projected outward through the spherical loudspeaker, positioning the IKO as an embodied extension of the vessel rather than a representational device.

Surrounding the ship, a twelve-channel loudspeaker array functions as the environmental field - the sea, atmosphere, and open spatial context against which the vessel exists and is defined. This creates a spatial dialogue between concentrated sonic material at the centre and a distributed surround field encircling it.

Rather than illustrating the ship, the work constructs a spatial relationship between interior material identity and exterior environment. Through its radiation patterns and physical positioning, the loudspeaker mirrors the condition of the vessel itself: a bounded object situated within open water. In *Travelling through the Fog*, the physical structure of the ship becomes embedded within the compositional process, where the IKO does not simply project sound but articulates the material identity of the site.

## Research Context / Contribution

The work contributes to ongoing research into site-responsive spatial composition, embodied listening, and the translation of architectural and material space into multichannel sound environments. It specifically investigates how hybridised loudspeaker systems can function as extensions of physical structures rather than neutral playback devices.

The work also contributes to broader discourse on spatial embodiment, environmental perception, and the relationship between sonic objects and architectural space, in particular with creative approaches and usage of the IKO loudspeaker.

## Technical Approach

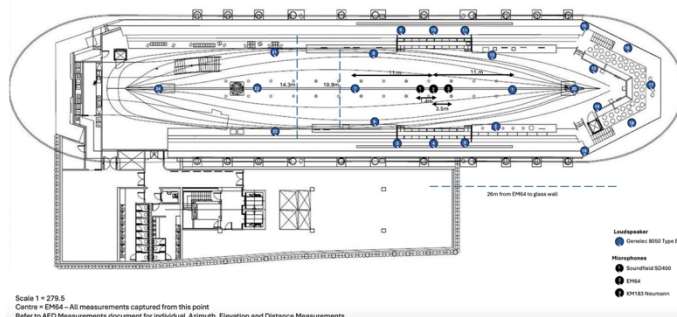
Impulse response captures and spatial measurements were undertaken on:

- 12 February 2025 - twelve-channel array measurements with additional diffusion points
- 2 April 2025 - dual IKO positioning tests and acoustic capture sessions

These recordings enabled us to simulate the acoustics within the SHIFT spatial audio lab in Greenwich.



Cutty Sark IR Measurements - 12 February 2025  
Floor Plan [Horizontal Plane]  
Dr Emma Hargreaves



Cutty Sark IKO IR Measurements - 2 April 2025  
IKO Floor Plan [Horizontal Plane]  
Dr Emma Hargreaves

