

Trevor Cox – Back to Nature: Fantastical Echoes and Reverberations

Abstract

Echo and reverb have been widely used as audio effects for decades. This paper explores unusual places, both ancient and modern, with remarkable natural sound effects including staircases that chirp, culverts that whistle and the most reverberant place in the world. The physics of the phenomena will be revealed, sometimes drawing on historical explanations, at other times using predictions from modern numerical models to visualise and better understand what is going on. The perception of listeners will also be explored, including what these spaces reveal about our hearing and our emotional response to architectural spaces.

Bio

Trevor Cox is Professor of Acoustic Engineering at the University of Salford, a former Senior Media Fellow funded by the [Engineering and Physical Sciences Research Council](#), and immediate past president of the [Institute of Acoustics \(IOA\)](#). One major strand of his research is room acoustics for intelligible speech and quality music production and reproduction. Trevor's diffuser designs can be found in rooms around the world. He has co-authored a research book entitled "acoustic absorbers and diffusers". He was awarded the IOA's Tyndall Medal in 2004. Trevor has a long track record of communicating acoustic engineering to the public and has been involved in engagement projects worth over £1M. He was given the IOA award for promoting acoustics to the public in 2009. He has developed and presented science shows to 15,000 pupils including performing at the Royal Albert Hall, Purcell Rooms and the Royal Institution. Trevor has presented sixteen documentaries for BBC radio including: Life's soundtrack, Save our Sounds and Science vs the Strad. And is currently writing The Sound Book for Bodley Head.