

Mark Joyce and Fergal Dowling Tyndall's Blues

Exterior and Lobby, 23 July—18 October

Fergal Dowling and Mark Joyce in discussion

What was the initial impetus for this Light and Sound collaboration?

We met initially in 2018 to discuss working together with light and sound and more generally the artistic challenges of combining colour with music or time-varying sound. We realised that site specificity, the architectural or spatial context would be a leading element and those early discussions went on to become Tyndall's Blues.

What is the connection with Tyndall?

John Tyndall (1820-93) was an experimental physicist, alpinist, progressive public intellectual and early popular science educator. He worked on atmospheric conditions, in particular how light and sound behaves in various atmospheres. He gave two series of lectures titled 'Light' and 'Sound' at the Royal Institute which summarised the Victorian Newtonian understanding, and they became the primers for scientific education. These remarkable texts and Tyndall's whole approach chimed with our earlier considerations of how light and sound are experienced together.

What are the connections with light, sound and atmosphere?

As an early Alpinist, Tyndall was particularly aware of how light and sound behaved in various atmospheres – how the changing light in the mountains could tell you about approaching weather conditions; how spoken communications are impeded at altitudes and at distances (presumably he was familiar with Alphorns for signalling) – and some of the practical applications of his research, such as developing ship horns that projected further and louder at sea in varying atmospheric conditions. Atmospheric conditions, and the varying speeds of light and sound, create the physical conditions to form such phenomena as rainbows, thunder, lightning, mirages, echoes, sunsets, and shadows.

How does Tyndall's Blues relate to the architecture of Visual Carlow?

The Visual Carlow building has a distinctive glass skin, described by the architect Terry Pawson as 'an intersecting assembly of translucent glass volumes that transforms throughout the day'. It appears that the building is made entirely of glass. On the outside it reflects the Carlow skies, the external atmosphere, and within it seems to act as a metaphor for an experimental chamber. The gallery is a space where light passes from one medium to another.

How does the audience experience the work?

Visually there are five blue shades of industrial Vinyl, Cobalt, Ice, Pthalo, Azure and Light Blue, arranged across the glass exterior. The contiguity of these blues resembles the tonal chord clusters found in music keyboard charts. A row of eight loudspeakers lines the entrance lobby, forming a 'scale' of progressively smaller speakers, which seem to act like portals in the skin of the building allowing light to enter, as if refracted and converted to sound.

How does the light and sound work together?

The Blue colours in the buildings skin are close in hue, tone and saturation. These are Tyndall's Blues, the hues that we see every day due to the scattering of electromagnetic waves in the Earth's atmosphere. The sound appears as a series of 'waves' – tumbling arpeggios of horns and bell plate percussion – which splinter across the eight loudspeakers. We never hear the direct sound of the simulated instruments, but only their simulated reflections, as if we are listening to a virtual orchestra in an adjacent space and can only hear it through these eight slits in the wall. These 'waves' emerge every minute or so, irregularly marking time like an unreliable clock. And, like the visual metaphor of white light refracting through a prism, the sound splinters into its component frequencies as distorted harmonics, and invades the space, fanning out throughout the galleries, and measuring the volume of the would-be experimental chamber. It leaves in its trace a residue of sound colour, suspended in the space like our memory of the sound, or the outcome of an experiment. Colour happens in our mind. By the time we experience a colour it has already become a thought or memory. In Tyndall's Blues the architecture of Visual Carlow is deployed like the Victorian scientific apparatus used in the exploration of the physical world of light and sound.