

Pembrokeshire Coastal: spatialising an experience

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Abstract

An iteration of an ongoing practice research project that intends to realise educationally relatable techniques for production of spatial audio to wider audiences. This work focuses on the use of spatial soundscape as a framework composition technique. Working with loudspeaker spatialisation as a starting point rather than end mix, it proposes how the soundscape holds an approach for the inherent translation of spatiality for music. Alongside competing and opposing theoretical positions, it posits the value of soundscape as a necessary conceptual bridge for broader spatial music making.

[Link to version of work \(Binaural version\):](#)

Stream

<https://on.soundcloud.com/LsgMZ>

Download

<https://drive.google.com/file/d/1SmjknSdSjj4JlcQ8xlKCq7xxipLKnpu/view?usp=sharing>

Introduction

A sea venture in 2021 around Dinas Head in Pembrokeshire collected field recordings, viewed sea caves and cliffs, witnessed wildlife, basked in sun, bathed in sea, day dreamed, and day tripped.

A day without recorded soundtrack (no headphones, wireless speaker, or presence of music) prompted the desire to interpret the experience as composition. Translating experiences into sound worlds is a typical process for composition, yet when afforded with spatial audio as the production process, what might be the considerations for rendering music that blends the ‘metaphorical’ and ‘representational’.

This work is part of an overall practice research project that intends to realise educationally relatable techniques for production of spatial audio to mainstream and popular music audiences.

This iteration in that process focuses on the use of spatial soundscape as a framework composition technique. Working with loudspeaker spatialisation as a starting point rather than end mix, it proposes how the soundscape holds an approach for the inherent translation of spatiality for music.

Toward popular spatial aesthetics

There are various competing positions for how spatiality might apply to wider music audiences:

- Sound arts and media practices that forward ‘Immersivity’ as decentralisation, audience agency, and interaction that tend to typify installation approaches and virtual environments.
- The current popular music practice of up-mixing from existing formats as additional envelopment and width.
- The long-standing practices of electroacoustic spatialisation coupled with ‘contemporary music’ aesthetics

These generalisations do not propose an either-or situation but might help to navigate emerging infrastructures and audiences.

Soundscape here is referred to as recordings of environments, habitats, territories, and spaces that include a multitude of sounds from a shared place. Be these rural or urban, they make up the acoustic spectrum of the everyday which the field of sound studies has extensively explored, mapped and theorised. As such, the current project’s proposition is that this medium still holds value when applied to spatiality in music, and its greatest potential is in the locational quality that allows us to understand and translate space.

Workflows and approach

The work is made up of various layers – field recordings / vocal performances / instruments and brought together through the medium of spatial listening.

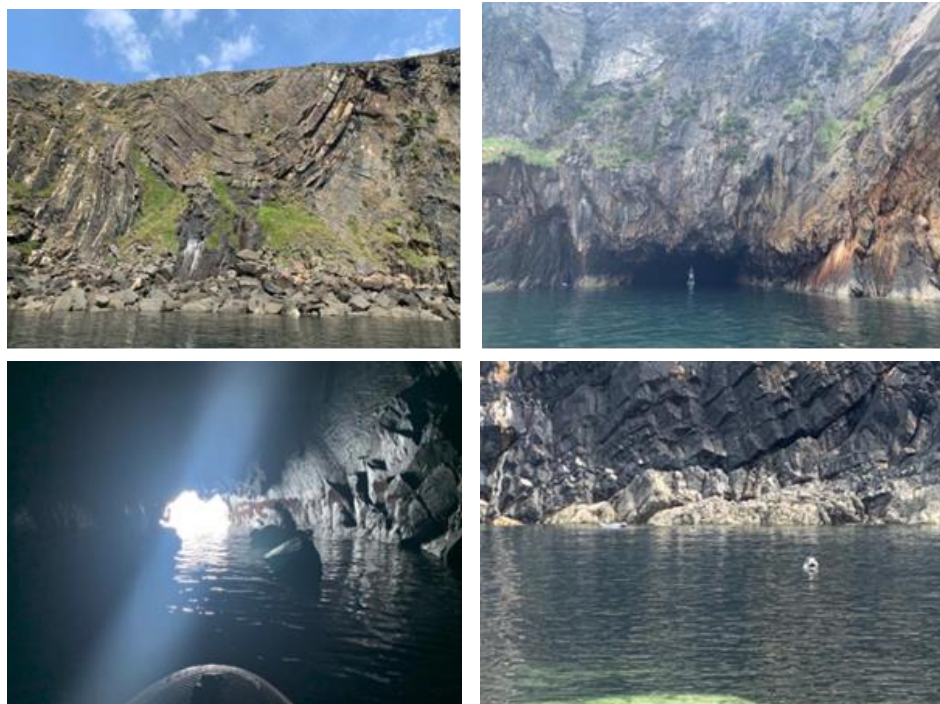
Amongst the discrete field recordings, many were made during the primary locational experience at Dinas Head in Pembrokeshire (Figure 1), and some were collected separately after the conception of the idea (a year later in 2022). The initial locational experience used phone-based recordings as ‘tools to hand’ and reflects the sense of an ‘acoustemological’ (Feld, 1996) approach to

documentation that is generated through navigating, engaging with, or interacting within a constantly changing and evolving environment. In other words, this was not a planned documentation trip, but lived and acquired through knowing.

A similar visit to the location with a H4N field recorder did not quite achieve the same quality of context of recordings but did offer some options.

The field recordings of the seascape were arranged as a ‘constructed reality’ within a 22.2 NHK array. It was here that the original context of the recordings was explored as an episodic memory relating to an altered state of consciousness (ASC). The approach of organising recordings of waves, blow holes, and various increments of water against rock to simulate the ASC experience required an approach that fluctuated between ‘situational’ and ‘transported’ arena spaces (Weinel, 2018). The primary function of this process was to create a framework for composing musical elements – as the proposition for popular spatial music suggests that pitch, melody, harmony and rhythm most readily communicates mood and emotion on a shared cultural level. However, in order to not simply create metaphorical and mimetic aspects to depict the located environment, composing to the sonic seascape affords a far greater connection. It is therefore proposed that the rendering of field recordings spatially creates qualities of immersion that enhance composing with soundscapes as a central element.

Figure 1 Four locations at Dinas Head, Pembrokeshire



Land, T. (2021)

Vocal elements were recorded from an adjacent project utilising ambisonic recording. With similar thematic ideas of ‘sea folk cultures’ the approach of capturing vocals in a sea cave was sought but logistics translated the idea to a reverberant railway arch located near the coast line (Figure 2). The recordings utilised movement and experimenting with reflections to render a number of vocal phrases as 3HOA. Processing in Reaper for spectral and dynamic qualities led to challenges when porting to the assemblage DAW (Ableton Live with Envelop Plug-ins). This forced abandoning the literal acoustic representation as 3HOA and splitting files for an approximate FX, achieving an ‘omnimonophonic’ quality which is described as the phenomenon of the voice being perceived as “one voice from everywhere” (Lord, 2022, p. 262). Single mono placement does not emulate the same quality and this is a useful technique to achieve ‘wholeness’ in multi speaker environments. It also allows for subtle inflections in panning movement that approximate the flux of real-world movement without specific directionality.

Figure 2 Disused Railway Arch, Pembrokeshire



Land, T. (2021)

The music element deliberately played on tropes and cliches, it sought to marry up the seascape and vocal work with a recognisable and relatable instrumentation. Whilst some investigation of varying approaches took place, the channelling of a popular perspective also suggested a form of “knowledge and imagination embodied in the culturally particular sense of place.” (Feld 1996, 2015) Rather than juxtapose or challenge the ‘sea-ness’ of the instrumentation, the affinity of long connected sounds and culture propose historical ‘sonic infrastructure’ (Kielman, 2018).

Accordion and violin were recorded to the spatial soundscape/ seascape following the outline movements of the waves and water. Key sonic marker points were quickly realised this way and led the compositional direction. These instruments afford the spatial relationship of the environments of which they are associated by their very form, the bellow of the accordion and bow of the violin both aping the movement of waves. Further processing of these instruments responded to the spatial dimension of the imaginary and the re-sounding of the altered state of conscious experience.

Metallic bells and strikes help to articulate the more frenetic movement of water and wave whilst providing tonality without absolute pitch. Again, composing to the spatial seascape locked the sounds to that form - although muting the sea recordings will provide a completely unheard part, suggesting in the spatial domain priority is given to the locational qualities and movements of sound.

Placing the spatial soundscape as the primary compositional starting point is not necessarily a new practice, but within the context of music composition it has fallen between various approaches. 'Field recording' electronica practices often chain the soundscape to the metricised elements of dance music and as 'found sound' samples. Whereas electroacoustic music tends to diminish the conventions of standard instruments and musical gestures (Smalley, 1996, p.112).

Discussion

Soundscape, as defined by RM Schafer has encountered criticism within the realm of sound studies due to its visual-oriented approach, reliance on binary oppositions, and focus on naturalism (Feld 1996, Sterne 2003, 2011, Lopez 1997). However, despite these critiques, a more comprehensive perspective on soundscape could be suggested. This perspective rejects the complete detachment of sound from its origin and surroundings and instead seeks to facilitate the listener's reintegration with the environment. In the current ecological context, this perspective remains relevant but with an understanding that extends beyond an idealized naturalistic aesthetic. More so, it emphasizes the cultivation of an awareness regarding the interconnectedness of all phenomena (Morton, 2008).

The essence of the soundscape as a recorded medium is beginning to be more fully realised for wider audiences via streaming platforms hosting long form recordings and playlists for aspects of emotional wellness and productivity. However, this form of sanitised soundscape tends to abstract from source meaning and prioritises ASMR (Auto Sensory Meridian Response) frisson like qualities of white noise used to detract from outside concerns. This is more so an extension of ubiquitous headphone culture's focus on individual soundtracks, the 'privatised soundworld' and with added noise cancellation to fully remove any diegetic sound, creating an emotional narrative through which 're-spatialisation' (Bull, 2010, p. 57-58) transforms world experience.

The interiority of the private soundtrack is also paralleled by aspects of ‘embodied presence’ (Schrimshaw, 2019). The increasing aestheticisation of the immersive installation, which often uses spatialised audio, is argued by Schrimshaw to be an ‘internalist logic asserting the primacy of the perceptual encounter’ and he challenges the logic ‘on the grounds that it diminishes capacity for thinking beyond the immediacy of human experience, collapsing differentiation through the assertion of an affective homogeneity positing mystical unification through a figure of cosmic vibration’ (Schrimshaw, 2019 p. 3)

Furthermore ‘Embodied immediate self-presence’ might also be a factor with the universal aspect of soundsystem and dancefloor cultures. The non-spatiality of ‘sonic dominance’ (Henriques, 2003) as ‘direct spaceless connection between a sound and its internal reception’ (Eisenberg, 2015 p. 193) helps to explain why the apparent physical space of the dancefloor has not translated easily to spatial audio. It is in essence a sound-world that focuses direct connection to frequency and vibration, and any spatialised elements such as reverberation might be better understood as de-spatialising effects, as all-encompassing envelopment.

Beyond abstracted acoustic spatiality there is also the broader spatial dynamics of sound as social structure, ‘Atmosphere’ (Riedel, Torvinen 2020) and ‘Atmospheric sociality’ (McGraw, 2016) suggest feelings as ‘spatially extended, environmental, collective, and materially tangible’. Popular music could be said to spatialise through networks of interconnectedness and that sonic spatialisation is simply an effect in a broader set of understandings.

What can be summarised is that spatialisation of sound can permeate in many ways and the specifics of spatial audio and listening can be applied to various modes and frameworks within practices and sonic cultures.

Not disregarding these differences, the premise of the research here posits that the soundscape holds unique qualities for further developing spatial audio practices with its unique ability to tap into a deep-rooted human awareness of locational sound, of knowing place and position. Using this with music’s qualities to express emotion and ideas might offer an approach towards sonifying interconnectedness.

Concluding thoughts

Working with spatialisation as a compositional tool set within evolving technologies that allow for greater access, suggests developing frameworks and strategies that help with the multitude of choices faced by artists, composers, musicians and producers.

The soundscape can act as a conceptual bridge for whole listening (of ecological and environment awareness) and enable broader aural awareness via the unification of locational sound and music.

The discourses of decentralised and participatory sound are not to be diminished but can be strengthened through spatial listening, likewise the creeping frontalism of the upmix might be challenged with broader sonic horizons.

References

Eisenberg, Andrew. 2015. "Space". In *Keywords in Sound*, edited by David Novak and Matt Sakakeeny, 12-21. Durham and London: Duke University Press.

Feld, Steven. 2015. "Acoustemology". In *Keywords in Sound*, edited by David Novak and Matt Sakakeeny, 12-21. Durham and London: Duke University Press.

Henriques, Julian. 2003. "Sonic Dominance and the Reggae Sound System Session". In Bull, Michael and Back, Les (Eds.) *Auditory Culture Reader*, 1st Edition. eds. Oxford: Berg, pp. 451- 480.

Kielman, A. (2018) "Sonic Infrastructures, Musical Circulation and Listening Practices in a Changing People's Republic of China," *Sound Studies*, 4(1), pp. 19–34.

Lopez, Francisco. 1997. Schizophrenia vs l'objet sonore: soundscapes and artistic freedom <http://www.franciscolopez.net/schizo.html>

Lord, Jo. 2022. "*Redefining the spatial stage : non-front-orientated approaches to periphonic sound staging for binaural reproduction*" In *3D Audio*, edited by Paterson, Lee 2022. Routledge

Morton, T. (2008) *The ecological thought*. 1st Harvard University Press paperback edn. Cambridge, Mass.: Harvard University Press.

Riedel, F. and Torvinen, J. (eds) (2020) *Music as atmosphere : collective feelings and affective sounds*. New York: Routledge

Smalley, Dennis 1997, 'Spectromorphology: explaining sound-shapes', *Organised Sound*, vol. 2, Cambridge University Press, no. 2, pp. 107–126.

Sterne, Jonathan. 2003. *The Audible Past: Cultural Origins of Sound Reproduction*. Durham: Duke University Press

Schrimshaw, W. (2019) *Immanence and immersion : on the acoustic condition in contemporary art*. Paperback edn. New York, NY, USA: Bloomsbury Academic, an imprint of Bloomsbury Publishing.

Weinel, J. (2018) *Inner sound : altered states of consciousness in electronic music and audio-visual media*. New York, NY: Oxford University Press.