

Ambient Aesthetics in the Acousmatic Domain:

a portfolio of original compositions

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Abstract

This text is the supporting document to a portfolio thesis of musical compositions submitted for the degree of Doctor of Philosophy in the Department of Music at The University of Sheffield. It acts as a guide to the ideas and methodologies behind the creation of the compositions. The portfolio consists of nine acousmatic compositions composed between 2015 and 2020, of which seven are stereophonic, one is quadraphonic, and one is octophonic. Following an introduction to the contextual considerations of this approach, this text discusses the works within the portfolio, in chronological order, revealing the development of a compositional practice rooted in the acousmatic tradition, yet drawing influence from ideas and techniques associated with ambient music. As the discussion unfolds, a working definition of ambience in music - ambient traits - is formed. We see how the musical traits commonly associated with ambient music are equally common to works found in the acousmatic field. Finally, I explain how such traits have informed my own compositional practice, while highlighting the broader ambient approaches within my own compositions. Across its duration, the portfolio explores a wide range of approaches to incorporating ambience within an acousmatic practice, and shows how it is possible for these two streams of composition to be combined in the pursuit of various musical goals.

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Part 1: Towards Ambience

This part of the thesis discusses the term ‘ambience’. It starts by providing a working definition of this term (Ambience in Music), before going on to consider some of the various acousmatic composers that have already explored ambient materials and ideas within their works (Ambience in Acousmatic Music). The discussion concludes with a broad introduction to my own compositional practice and the accompanying portfolio of acousmatic compositions (Ambience in My Music). Despite the fact that ambient music is extremely difficult to define, the term seems appropriate when attempting to describe the recurring stylistic themes in my music. A brief introduction to these broad themes sets the stage for a more detailed evaluation of my works in Part 2 of this thesis (The Portfolio) in which each individual piece in the accompanying portfolio is discussed in turn.

Ambience in Music

The term ‘ambient’ is somewhat problematic; although it is often used to describe a type of music, definitions of this type are extremely vague, and examples of ambient works offered within those definitions are extremely diverse or broad. We shall briefly consider why this is the case, by considering how the term ‘ambience’ has been applied to music before going on to consider how this specific term may be applied to works of acousmatic music.

Ambient music is perhaps most simply, but insufficiently, described as “background music” (Griffin, 2014, para.12). Most definitions tend to point towards a number of stylistic traits, such as the ability to reward both passive and active listening through its tendency towards unobtrusiveness, the inclusion of atmospheric and/or visual qualities, a focus on slow-developing textural layers of sound, and an emphasis on tone and atmosphere over traditional approaches to musical structure or rhythm (Prendergast, 2003, p.3). These musical features can be identified in other musical genres, of course, including: minimalism, electronic dance music (EDM), soundscape composition, and perhaps even medieval plainchant. Accordingly, a focus upon these features of ambient music does not necessarily help to narrow down the range of musical types that may be described as ‘ambient’.

A quick search of mainstream ambient playlists reveals a similar issue, variously including: Aphex Twin, Philip Glass, Jon Hopkins, Four Tet, Jean-Michel Jarre, Arvo Pärt,

Nine Inch Nails, and Vangelis (Spotify, June 2020). This is, of course, an extremely diverse selection of musicians and composers working across a variety of styles, and it is (at least initially) difficult to see clear connections between their respective forms of practice. The reasons for this are as understandable as they are regrettable; despite making use of some of the musical traits we will come to attribute to the idea of ambience, the artists listed above are not simply composers of 'ambient music', and this makes any attempt to provide a precise description ambient music all the more complicated.

The popular genre that now goes by the name *ambient music* is also not necessarily directly reflective of the origins of the practice. The term itself, "ambient music", was first used by Brian Eno (Eno, 1978, para.2). In the late 70s and early 80s he released a quartet of thus-named albums, coining the term in the written liner that accompanied the first release, "Ambient 1/Music for Airports", in 1978, and then expanding on these ideas within the notes accompanying the final release of the series: 1982's "Ambient 4/On Land". In these texts, Eno describes his interest:

"in the use of music as ambience...without being in any way compromised", defining the term ambience as "an atmosphere, or a surrounding influence: a tint", and going on to state the purpose of these albums was to create "a catalogue of environmental music suited to a wide variety of moods and atmospheres" (Eno, 1978, para.3).

Eno made a point of distancing his approach from that of the extant background music, *Muzak*, that "regularised environments by blanketing their acoustic and atmospheric idiosyncrasies" (ibid, para.4), highlighting his desire to enhance these features, and to retain any inherent musical interest stemming from senses of doubt and uncertainty. An overall intention of ambient music - to "induce calm and a space to think" - was stated, as well as a receptive condition: that it "must be able to accommodate many levels of listening attention without enforcing one in particular; it must be as ignorable as it is interesting" (ibid, para.5).

Although Eno describes his creative reasonings, he stops short of depicting a rigid set of rules that strictly define his compositional process, or of setting out a precise list of sonic qualities that must be included in order for something to be described using the term 'ambient'. Instead, he describes an experimental approach in which he explores sound in an environmentally-minded way, aiming to encourage a certain sense of mindfulness in the listening experience. Formatively, his intentions were for his music to tread the fine line of being simultaneously engaging and passive, whilst avoiding the trappings of becoming too derivatively dull.

Eno's discussion focuses on the environmental concerns of his music over the description of any specific musical or stylistic features; an approach furthered in the notes

accompanying the 1986 rerelease of *On Land*. Here, Eno discusses an idea that came to him from a practice of listening to the world in a musical way, of imbuing musical works with a “sense of place - landscape, environment”, and of setting each piece of music in its “own particular landscape and allowing the mood of that landscape to determine the kinds of activity that could occur” (Eno, 1986, para.2). Eno goes on to discuss the use of technological tools in manners beyond their original design, particularly in regard to the use of reverb in the creation of newly-imagined musical spaces. Such tools and approaches can facilitate the removal of clear distinction between foreground and background; enveloping the listener, the music and the location together as part of the same immersive sonic landscape. This point is particularly important, in that it suggests an important condition in the fundamental purpose of his music. Rather than the more common purposes of performance, the recording of a performance, or the unfolding of a particular musical narrative, Eno’s ambient music was to become a musical environment to be explored at the leisure of the listener.

Despite Eno’s renowned status as the father of ambient music, there is precedence for many of the core ideas preceding him. David Toop traces ambience in music as an aesthetic trend across the twentieth century of music that “drifts or simply exists in stasis rather than developing in any dramatic fashion”, stemming from Debussy through to John Cage, Miles Davis and beyond (Toop, 2001, prologue para.7). Mark Prendergast also suggests the notion of ambience in music can be seen as one of the overarching musical trends of the twentieth century (Prendergast, 2003, p.3). He suggests that this feat was aided in no small part by the advent of recording technology that, for the first time, allowed for compositional subtlety and experimentation to be accurately translated to the increasingly home-based listening experience. Similarly, the simple act of capturing sound for playback allowed environmental sound from one location to be transported both in time and space to another, as well as opening up possibilities for the creation of new musical environments. Over time, this technology has also led to music in general becoming part of the collective societal landscape, rendering all recorded music, by definition, ambient (ibid, p.4). Whilst I disagree with that final statement, at least in terms of its finality (perhaps all recorded music can *become* ambient, depending on the manner of its presentation, but I do not agree that all recorded music is *innately* ambient), there is certainly precedence to the prevalence of ambience prior to and beyond Eno.

Many of the conceptual approaches and stylistic traits can be seen in the work of a number of other composers. John Cage, Erik Satie, Marcel Duchamp, György Ligeti, among many others, could all be said now, in hindsight, to have utilised a number of these

now-called ambient approaches within their work, and Eno himself names a varied mix of musicians and composers, from The Who, to Steve Reich and Cornelius Cardew, amongst his influences (Morley, 2010, para.1-8).

Many point to Satie's 1920 work *Musique d'Ameublement* as one of the first examples of ambient music, and indeed of many lines of musical development that followed. This was music written for intermissions, to be deliberately ignored, and with no defined structure through a performative directive for sections to be rearranged as necessary to suit each particular situation. It differs from Eno's approach to so-called background music in a number of ways, but a core aesthetic trait is shared: "breaking the representational model and function of bourgeois performance, possibly recovering/discovering other functions for music" (Berdanini, 2008, p.2). Prendergast argues that Satie's penchant for symmetrical repetition also laid the foundation for minimalism, new age and house music (Prendergast, 2003, p.8), but points even earlier, to Mahler, as the first step towards the embrace of musical ambience, through his use of incidental sounds, loosened key structures and subdued rhythmic figures, particularly in the slower movements of his symphonies (ibid, p.5).

A number of other significant works are touted as being instrumental in the formation of various notions of musical ambience. Paul Griffiths quotes La Monte Young, renowned for his exploration of sounds of long duration and drones, as being inspired towards this aesthetic by "listening to the wind from inside the log house in which he grew up" (Griffiths, 2010, p.155). Young's 1958 *Trio for Strings*, for example, is a serial work which embodies minimalism to the fullest degree, with extended gaps between notes and rests ensuring a singular focus on the sound, or lack thereof, that currently occupied the space. Prior to this, Cage was also investigating the creation of musical environments via elements of chance and varying arrays of instruments and electronics through his *Imaginary Landscapes* (1939-52), before famously bringing to focus the idea of ambient sound, or 'silence', as music with *4'33"* in 1952. Cage, like Eno, draws a connection from his music to the natural world; Alex Ross summarises his compositional approach around 1950 with a quote: "...hold together extreme disparities, much as one finds them held together in the natural world" (Cage, in Ross, 2012, p.404).

The importance of minimalism in the formation of Eno's approach and the wider impact of ambience in music can not be understated. Ross writes that the minimalist movement was, in part, a reaction to the Schoenbergian serialist movement that dominated the avant-garde music scene in the post-war era. Free, by virtue of the Atlantic ocean, from this sense of European musical anxiety, the likes of Reich, Riley, and Glass took elements from popular music and jazz and fused them with new techniques and technologies to, as

Eno summarises “...drift away from narrative and toward landscape, from performed event to sonic space” (Ross, 2012, p.317). Eno is widely reported as being an ardent admirer of the minimalists, and ambient music was, in turn, Eno’s own synthesis of minimalism with Cageian philosophy, and his attempt at bringing such ideas into the mainstream (Prendergast, 2003, p.93).

The idea of ambient music, and the styles that this term has come to encompass, continued to develop in the years following Eno’s albums. Arguably the most prevalent development of the ambient genre came about towards the end of the 1980s with the emergence of ambient house - a subgenre of EDM that, whilst remaining true to Eno’s original inclination towards mindfulness, did so within the rhythm-driven style of EDM: fusing long-form ambient textures, environmental recordings and found sound with percussive samples, loops and beats. This is far from the only example of this adoption and/or development of the ambient approach, and the scope of ambient music has continued to expand towards a situation now in which, as previously mentioned, ambient playlists are full of music that could also be attributed to a broad range of other genres. I would suggest that, in its current state, ambient music tends to exist primarily as a subgenre of another primary musical style or genre. From contemporary classical (minimalism, neoclassical), through various forms of EDM (ambient house, downtempo electronica), pop and rock (dream pop, chillwave, neo-psychedelia, shoegaze, post-rock) and through to acousmatic music, each of these now harbour an ambient-influenced style (or set of styles) of its own. By taking features from the parent genre and fusing them with an ambient approach, these subgenres retain some of the common features identified above, while developing their own unique sound and stylistic traits. As much as there still *is* ambient music in keeping with Eno’s original ethos, there is now also a wide range of music-making that goes beyond his initial intentions. Ambient music, as a term, now covers something infinitely broader and more ambiguous.

Szabo’s study of ambient music’s reception confirms this sense of ambiguity, and highlights some of the important recurring audible and receptive traits (Szabo, 2015). According to the interviewees, ambient music is “experimental, introspective, spacey, electronic, beatless, formless, slow and/or static,” and that it emphasises “texture, tone, and atmosphere...constant tones, elements of drone”, whilst avoiding “clear rhythms and quick-moving melodic lines” (Szabo 2015, p.6). A number of the interviewees also comment on its ability to encourage certain listening practices: “music to chill to...to take you on a journey”, and that it is: “mood enhancing and ego-free” and “a soundscape of a certain feeling or environment” (Ibid.). Some of these traits can be traced back to Eno’s writing and

music, whilst others are clearly quite substantial developments or tangents, but as a whole this study perhaps gives us a clearer picture of how the idea is now seen, at least from the perspective of listeners. This, in turn, may provide us with an understanding of what needs to be considered when approaching the task of fusing ambient and acousmatic compositional practices, as is discussed later on.

In *Space in the Ambience*, Ambrose Field (Field, 2019) discusses another issue relating to the modern perception of ambient music: the manner in which, in the forty-odd years since Eno's *Ambient* series, the ambient environment as a whole has changed. The world that Eno was working to connect with is vastly different to the world in which many of us now live and, similarly, to the world of the proto-ambients that preceded him. Field suggests that with these changes, certain aspects of Eno's approach, particularly in relation to altering perception in the pursuit of mindfulness, are perhaps less appropriate in the context of the typically information dense, modern ambient environment. Whereas in ambient music's early years, mindfulness was to be sought out by reconnecting with the ambient environment, in today's non-stop media driven popular society, mindfulness might only be able to be found after purposefully blocking out the surrounding world. This development toward creating a *personal* ambience within a musical environment, the sense of sonic immersion, could potentially account for some of the ways in which the genre has developed (Field, 2019, p.49).

Despite the enormous variety of ambient-influenced music that exists today, there is still an argument for the existence of ambient music as a genre of its own: a central thread stemming more directly, at least in terms of surface-level appearance, from Eno's albums. Certainly, the popularity of ambient-named playlists populated by slowly shifting electronic drones, softly fractured melodies and subtle environmental sound on streaming services such as Spotify would suggest so. However, as Monty Adkins and Simon Cummings discuss, how true much of the music that fills these playlists has remained over time to Eno's wider intentions relating to experimentation and perception is debatable; in some ways a few particular stylistic developments (particularly those related to New Age music or accompanied with the word 'chill' or 'relax') seem to have become almost precisely what Eno was seeking to surpass: part derivative, commercial *Muzak*; part unignorable sound experience designed to suppress connection to the wider ambient environment (Adkins & Cummings, 2019, p.v). This subjugation of Eno's perceptive intentions, in comparison to the widespread adoption of his core sonic fingerprint, is even more visible in the context of the broad range of ambient-influenced styles and subgenres. Each of these occupies their own space in musical society, with their own performative norms, aesthetic intentions and cultural

traditions. Eno's philosophy is now, albeit to varying degrees, irrelevant; but there remains a tangible link throughout all facets of ambient music steeped in his sound.

With such a broad spread of potential influences and developmental lineages, attempting to arrive at a singular definitive description of precisely what ambience in music is seems inappropriate. Rather, I would suggest that the issue of ambience in music is best seen in three strands:

Firstly, there is the overall idea of ambience in music, which covers the increasing prevalence of ambient aesthetics adopted (consciously or otherwise) by a vast array of different musical practices from around 1900 to the current day. This accounts for the huge spread of ambient-influenced subgenres discussed in the previous paragraphs and a lot of the difficulty in defining precisely what ambience is, but can be generally summarised as a compositional approach that seeks to embody a certain sense of environment within the work.

Secondly, ambient music as a popular genre. Stemming primarily from Eno's music, and to a lesser extent his ideas, this is a style of electronic music typified by a broadly similar soundworld to his ambient-named albums. Some styles that have evolved from this genre have remained true to Eno's intentions towards perception and experimentation; others less so.

Thirdly, there is the phenomenon of music as ambience, which accounts for the manner in which technology and societal norms have evolved to a point where music now permeates so many facets of modern life. This gives any recorded music the ability to become ambient by nature of the context in which it is played and heard, and also arguably contributes to the increasing prevalence of *Muzak*-style commercial music libraries.

The following chapters are primarily concerned with issues stemming from the first two strands; these are more directly connected to the act of composition itself and thus the intentions of this thesis. What connects these strands is a broadly environmental approach to composition, with which comes a tendency toward a certain group of musical traits and materials that have been frequently uncovered across the preceding paragraphs. These traits, which we will further investigate in the discussion ahead, are effectively the calling cards of the ambient sound; those that are common among all of the various developmental threads of ambience in music. This is to say, these traits are what defines ambient music:

- A focus on slowly developing textural sound worlds
- The incorporation of environmental sound, field recordings and/or the impression of physical space through other means

- Non-traditional approaches toward elements of harmony, melody and/or rhythm, with a tendency toward perpetual repetition
- Extended durations of individual sounds, phrases and/or larger structural systems

Whilst certain facets of ambient music may have developed into something safe and predictable, there remains an undeniably experimental core to the practice, courtesy of the aforementioned avant-garde lineage. Coupled with Eno's desire to challenge the banality of the existing "Muzak"-style of composition for background, his attraction to found sound, the use of "non-instruments" and environmental recordings, it is clear already there are some close alignments with what we know to be common in acousmatic composition. Despite the obvious stylistic and formative differences, ambient music and acousmatic music also share many similarities. Developing alongside one another in a broadly similar time frame with the use of many of the same technological tools, and with a similar experimental perspective, they inevitably share much of a sound palette. With this in mind, we can now consider how these ambient traits have been explored by acousmatic practitioners.

Ambience in Acousmatic Music

Ambient-influenced acousmatic music is, perhaps unsurprisingly, not a new thing; varying developments of some of the core stylistic traits of ambient music can be heard within the work of Denis Smalley (*Valley Flow*, 1991), Hildegard Westerkamp (*Talking Rain*, 1997), and Monty Adkins (*Memory Box*, 2009), among many others. Despite this, however, the term ambience is rarely used in relation to acousmatic composition, with terms such as spatiality, tone, soundscape and atmosphere more often used to discuss stylistic traits of a broadly similar nature. This may, in part, be the result of ambient music's status within musical discourse; traditionally grouped within the 'popular' side of music culture, rather than the academic or avant-garde nature of acousmatic composition. In turn, this is potentially the result of ambient music being so readily attributed, rightly or wrongly, to primarily one man, Brian Eno, whose own musical career has resided predominantly and extensively within the popular music world. Separating ambient music from Eno, and thus pop, is a difficult task. Historically, acousmatic music has also been fairly insular, and the overt borrowing of elements from other genres, particularly popular styles, is a relatively recent development within the field, as noted by Robert Bentall in *Genre Hybridisation in Electroacoustic Music*. (Bentall, 2015)

I would suggest that generally, many of the core material-based stylistic traits can be easily heard and/or are commonly used in acousmatic works. Complex textures, environmental recordings, and drones, for example, can be found throughout a wide range of acousmatic music and indeed the wider musical world. Materials alone can only go so far toward embodying notions of ambience, however, and certainly not all acousmatic music that makes use of such common materials is necessarily to be considered ambient. A single static drone figure would likely do little to foster an effective impression of ambience without consideration of how other materials or ideas, ambient or otherwise, might interact with it, and the meta-level 'environmental' compositional concerns can often arguably be just as important. Therefore, it is the context in which such materials are used, and the relative prominence of other ambient traits alongside the full range of features that any given piece of music can contain, that are perhaps the more important considerations.

Some of the more specific conceptual approaches relating to perception, however, such as Eno's intentions toward "inducing calm and a space to think", and "being as ignorable as interesting" are perhaps less easily adopted due, to some extent at least, to the performative norms of the acousmatic medium. The formal, classical-tradition format that the vast majority of acousmatic concerts follow simply is not widely conducive to these perceptive states, which leaves us in a situation in which the musical traits commonly associated with ambience in music potentially become separated from their intended experiential effects. Given that most discourse surrounding ambience in music is concerned primarily with the effects it can have on the listening experience (and/or similar social and cultural concerns), rather than of the materials or techniques used themselves, it is perhaps initially uncertain as to what purpose they might be used within acousmatic music. However, as is the case with many other modern ambient-influenced styles, the inability of the acousmatic medium to perfectly embody Eno's philosophy has led to evolution, not failure. I would suggest that sonic immersion, an experiential effect of being wholly absorbed by the sound world of a particular piece, is effectively the acousmatic development of Eno's philosophy.

In order to further explore this meeting point, the remainder of this chapter is dedicated to the exploration of how I hear other composers to have explored various notions of ambience, consciously or otherwise, within their own works. It is important to reiterate that the term ambience is rarely used in relation to acousmatic composition, and so even though I am using it here to discuss certain types of material or assumed conceptual approach present in these works (and I hope to have justified that stance in the preceding discourse), it is unlikely that the composers themselves will have done the same. The following works

contain musical materials and techniques that suggest ambience to me in a number of ways, and deserve particular mention due to certain traits being particularly inspiring to my own compositional practice. I have also been lucky enough to have been supervised and supported throughout this project by two acousmatic composers whose individual compositional aesthetics have undoubtedly influenced my own, and who likewise have utilised ambient approaches within their compositions.

Adam Stanović's *Point of Departure* is a long-form work that explores the idea of accumulation; gradually building enormous, densely chaotic textures from tiny elements of granular sound. The two extended crescendo figures that form the body of the work are supported by harmonic drone elements that themselves take a blissfully ambient melodic spotlight moment in the middle portion of the work. It is a wholly immersive listening experience, with an enormous breadth of intensity between the high and low points; an overall effect I have endeavoured to achieve in a number of my own compositions (Stansbie, 2009).

Adrian Moore's *Junky* is a self-proclaimed "electroacoustic ambient" work that makes extensive use of rhythmic and melodic devices, harmonic structuring and drone-based environments throughout. From a textural perspective, the juxtaposition of lush harmonic drone materials with intricate lines of iterative figures, and drier clouds of noise-based materials, was hugely inspiring and is something that has developed to become prevalent in my own work (Moore, 1996).

Georges Forget's *Urban Adagio* (2010) makes extensive use of environmental sound, harmonic drone materials and rhythmic loops to thread a story through a tense urban soundscape. There is a continual presence of shifting bands of mechanical noise and low-pitch sinusoidal tones arranged in dense chordal patterns, occasionally interrupted by dramatic bursts of activity. This provides a really satisfying contrast with layers of iterative granular materials and a passage of processed gestures that in turn affect the harmonic content of their backdrop. The sheer intensity of the environment presented, and the juxtaposition of pulsing movement with continual rootedness within this work inspired a similar approach to the middle and last sections of *Partial Reflect* and *Salten Drift* respectively (Forget, 2015).

Monty Adkins' 2011 album *Fragile.Flicker.Fragment* is perhaps the work that best articulates the overall direction I have endeavored to follow with this portfolio. I feel this album almost perfectly navigates a fine line between acousmatic and ambient music, without ever definitively subscribing to either. Adkins uses a very ambient-minded sound palette of

rich drones and layers of bubbling granular materials to form immersive, constantly evolving environments led by harmonic patterns and fractured melodic lines. Repetition also plays an important role in fostering hypnotic effects with oscillating noise materials, and as a structural element on a larger scale, but Adkins installs enough unpredictability and dynamism in the sound world to keep a constant feeling of fluidity. The opening track, *Memory Box*, was used as a specific sonic reference for my own *Steel & Ivory* (Adkins, 2011).

Denis Smalley also offers valuable insight into his 1992 work, *Valley Flow*, (Smalley, 2004) which he explains was composed to directly reflect the Bow Valley in the Canadian Rockies in a broadly similar conceptual approach to Eno's *On Land*. The overall structure and various groups of materials are derived from a flowing gesture that imitates the landscape; stretched to create long contours of airy panoramas and contracted to form more dynamic gestural figures. Environmental sound is perhaps one of the more obvious examples of ambience in the acousmatic domain, but poses specific issues depending on the manner of processing of the source material. *Valley Flow*, whilst undoubtedly adhering to the overall slow-paced ethereal qualities attributed to ambient music, utilises a far more traditional acousmatic sound palette; morphing the source material into a dynamic array of abstract sound objects that, while reflecting "...water, fire and wood; the gritty, granular fracturing of stoney noise-textures; and the wintry, glacial thinness of sustained lines" (Smalley, 2004, p.ix) are far less transparent in that act than, for example, this next work.

Whilst I have not, within this portfolio at least, composed what I would consider to be a 'pure' soundscape work, I have extensively used environmental sound and would be remiss not to mention Hildegard Westerkamp's work, particularly *Talking Rain* (Westerkamp, 1997), among my influences. This journey inside the rain showed me the sonic capabilities of water that inspired *Under Fluid Skies*, and her overall ecological compositional approach, investigating the impact of and interaction between natural and man-made soundscapes, continues to stimulate my own compositional drive.

A number of works more closely-aligned with the popular ambient world are also particularly worth highlighting for their acousmatic-esque sound palettes and treatment of material. Abul Mogard's *Circular Forms*, for example, is a drone-based album of what I believe to be some of the most effectively atmospheric and emotionally stirring music ever written. The utilisation of simple, repeating musical cells as the basis for the creation of enormous, densely textural sonic environments, showcased particularly effectively in *Slate-Coloured Storm* and *Half Light of Dawn*, which both revolve around a single falling three-note motif, is something that I found particularly inspiring. The combination of this harmonic core with multiple layers of

noise-based materials is really effective; elements of this influence can be heard throughout this portfolio but are perhaps most obviously shown in *Partial Reflect* and *Residual Motion* (Mogard, 2015).

Tim Hecker's 2013 album *Virgins* explores a varied palette of instrumental sound as an experimental source. Hecker continuously abstracts and recycles material through physical and digital manipulation whilst fusing traits from minimalism and glitch into slowly morphing ambient environments. *Virginal II*, for example, takes a short melodic loop and uses it as the basis of a gradually building dense, reverberant environment which eventually erodes any semblance of individual components in amongst its own density. A similar accumulatory process can be heard in various places throughout my portfolio, often during the final sections, but the instrumental content is perhaps most immediately relatable to the third section of *Shadow Fragments* (Hecker, 2013).

Fennesz's 2008 album *Black Sea* was one of the first that really caught my attention when I started to become interested in electronic composition. The fusion of environmental sound into the complex textures of the title track, as well as later in the album on *Glide*, is something I found really engaging. Similarly influential across his wider discography, are Fennesz's continual juxtaposition of minimalist instrumental writing with experimental ambient drone environments; the sheer breadth of moods that his music covers, from soothing lullabies to aggressive, distorted walls of noise; and the feeling that you're never entirely sure where each piece will go next (Fennesz, 2008).

Ambience in My Music

Over the previous two chapters, we have seen what traits are common amongst music that embodies various notions of ambience, and seen how such approaches are already being used within acousmatic music. This final chapter of part one acts as an introduction to my compositional process as a whole, and will explore how I have used ambient materials and methodologies within my work. In short, it offers a guide as to how the portfolio should be approached.

As a whole, this collection of pieces evolved from a creative aesthetic led by my own philosophies and listening tastes: a personal reaction to the exponentially busy, always-on and instant gratification-centric mindset that dominates popular society, and in which many of us now live. In my experience, the ability to slow down, switch off, and simply be present in a given environment is a hugely beneficial remedy to the immediacy and stress of modern

life, and whilst I do not meditate in the traditional sense of the word, a daily exercise routine and musical listening practice functions in much the same way for me. This ambient mindset has extended into my musical output, and as such, although there are often elements of highly active experimental sound exploration and drama within my work, an effort is made to counteract these with contrasting materials and/or phrases of peaceful stability and ambient reflection.

Arriving at a singular definitive description of my compositional practice is an impossible task. As is the case with the complicated nature of ambient music, there are a multitude of influential lineages, ideas and inspirations to consider, many of which will be uncovered in the following paragraphs. However, what connects these elements is the idea of musical ambience, and, more often than not, the sound materials and conceptual approaches that I have found myself drawn to extract from or develop in the styles or approaches I am working with, are those with which we have defined the ambient sound. Throughout the creation of this portfolio, I have found value in exploring a number of different developmental offshoots of ambient composition - some rooted in Eno's methodologies, some influenced by 'popular' ambient music, and others with an environmental approach - all within the medium of acousmatic music. Sonically, the majority of pieces within the portfolio were initially inspired by a particular sonic experience from some aspect of my life or local environment, or from improvisatory experimentation with musical instruments and various household objects.

Influences

My introduction to composing acousmatic music came through the work of contemporary electronic artists such as Christian Fennesz, Alva Noto and Ben Frost, rather than the perhaps more traditional *Musique Concrète* route. This modern take on the genre has remained integral to my compositional practice throughout the creation of this portfolio. In addition to the vast electroacoustic musical lineage that precedes me, perhaps the most significant influences have come from a varied group of composers and producers of ambient-influenced music, including the likes of Jon Hopkins, Nils Frahm, Tim Hecker, and Chris Clark, among others. These are artists who have experimental sound manipulation at the very core of their compositional process, and who fuse influences from a broad range of styles to create original music that seems to defy specific genre categorisation; a compositional mindset I have sought to emulate whilst creating this body of work. Much like the broad influence pool of ambient music, the music in this portfolio thus incorporates elements from a wide variety of styles, including acousmatic music, soundscape composition

and field recording, instrumental music and found sound, minimalist modern classical composition, drone music and various forms of electronica, in a continuing exploration through the varied sound worlds that inspire me to compose.

The music of Erik Satie was arguably my earliest introduction to ambient composition. Aside from composing, I am a distinctly mediocre pianist with a deep love of the atmospheric modal environments created by the slow harmonic pacing, repetition, and relative simplicity of, in particular, Satie's *Gnossiennes* and *Gymnopédies*. His was some of the first music that I felt I properly connected with when going through the motions of learning the piano at school, and it led me down a path of discovery through the music of John Adams, Steve Reich, Ryuichi Sakamoto, and eventually into the ambient world. In my compositional work that followed, the piano developed to become an integral part of my practice as a whole, acting as a sort of sounding board for the various melodic and harmonic devices that filter through my music, regardless of whether I was directly working with the sound of the piano or not. When I did come to work with the piano as a source of sound material, this early ambient exploration fed into my own piano-led composition and directly into two of the works in this portfolio, *Steel & Ivory* and *Shadow Fragments*. From many of these influences, comes an inclination towards the use of pitch rooting and the embellishing of some form of harmonic context within my work. Beyond the obvious structuring opportunities that arise from these approaches, I have also found them to be helpful in the embodiment of emotionally-charged feelings such as continuity, tension, progression and/or stability within the musical environments I create.

Environmentalism

In addition to those specific musical influences, the connection to nature and the environment in my music is also strong: all but one of the works that make up this portfolio are either directly influenced by a specific location or environment, or were composed using sound materials recorded whilst travelling. I have found no better way to explore somewhere new than with my ears and microphones. Environmental sound can of course vary vastly from one locale to another, and it is important to note that despite the tendency towards mindfulness, neither ambient music as a whole nor my own work are necessarily only concerned with exploring calming, peaceful environments. As much as such spaces can be hugely rewarding from both a musical and experiential perspective, I have personally found real interest in the darker, more chaotic environments that I come across. The middle of the storm; the frenetic industrial site; the roaring underground station; that layer of additional tension and sonic intrigue provides countless creative opportunities to explore and exploit

when working with such materials. Although these environments undoubtedly pose questions relating to their suitability for use alongside ambient intentions, it is often precisely this conflict that provides opportunity for creative exploitation. For me, these environments often also carry the ability to innately foster meditative states of listening by forcefully ensuring singular focus on them, negating any possibility of distraction. Such environments are also an increasingly pervasive part of our collective ambient world, and I feel that ignoring them would seem to be somewhat neglectful.

In discussion of his own working method, Eno touches on what I think is an important formative distinction in regard to ambient music and my own compositional practice. He describes a view in which he acts as a “musical gardener”: planting musical seeds and seeing what grows from them; as opposed to the “architect” model that a composer is perhaps more often assumed to adopt, in which carefully planning and crafting every little detail of a musical sculpture is the model (iai, 2020). From my own experience, I would suggest that the acousmatic composer is somewhat able to choose between these two approaches: free from the architectural confines of musical transcription or instrumental limitations, but with a tendency toward a similar, possibly even greater, level of control through composing for fixed medium and the microscopic detail with which we can are able to work with sound electronically. Whilst I continue to draw great inspiration from the technological tools I have at my disposal, I have also found working with environmental recordings to be immensely freeing, and an effective way of removing a certain level of control. The inescapable unpredictability of environmental sound has provided me with countless creative opportunities that I would never have discovered had I not been using such materials, and has allowed me to weave impressions of natural freedom through what are often very precisely crafted sonic structures.

Similarly, I have found that my most rewarding listening experiences come about when I feel as if I am a part of the overall musical environment, directly feeling its influence and not just watching/hearing from a distance. For me, much of this immersive effect is linked to the manner in which a tangible sense of environment is created within a piece of music; the very essence of ambience. Immersion is something I have endeavored to emulate within my own work, and I have found that by using ambient-minded materials and approaches, I am better able to achieve this effect. Drones, repetition, environmental sound, slow pacing and so on, these are all either innately reflective of, or can be specifically designed to create or imitate, physical space, making them the perfect techniques to utilise within acousmatic music in the pursuit of immersion.

Ambient Acousmatics

Much of my interest in working with sound lies in the exploration of extension. Whether through time stretching, pitch shifting, granulation, the addition of reverb or delay (and varying combinations of them all), I have found the ability to transform a momentary sonic event into an elongated experience really powerful in the context of my creative intentions. When combined with materials derived from similar starting points, the resulting drones and textures can, in turn, be used to underpin musical environments formed of a variety of spectrally related sound objects, quickly creating entire worlds of sound materials that are simultaneously contrasting and connected.

I have found the most creatively rewarding effects, however, through exploring the balance between experimental sonic exploration and ambient environmental development, and in investigating the ways in which said balance can be exploited. Morphing an erratic industrial soundscape into a drone sequence, for example, can transform what could be a cacophony of indistinguishable noise into something stable and immersive; a powerful juxtaposition that has allowed me to bring dynamic, noisy environments into unexpected musical spaces. More generally, perhaps one of the other notable effects of this combinatorial approach is that by using ambient approaches in the midst of a complex and dynamic acousmatic sound world, I am able to introduce moments of relative simplicity, calm and/or quiet. In turn, I find that these work towards increasing contrast, making the next event or phrase more impactful in its delivery; heightening the highs and deepening the lows. Similarly, they allow me to maintain the immersive and hypnotic listening environments in which I find a lot of value, without detracting from the development of sound materials with a less innately meditative character.

Through my practice, I have found that the natural meeting point of these two approaches is often sonic texture; a concern that will be discussed in greater detail through the work descriptions that follow. Texture forms the primary focus of much of my work, and as such, my compositional practice generally revolves around the creation of atmospheric scenes of layered sound that explore changes in combinations of sound materials, as much as the transformations and phrasing of the materials themselves. Many of these are designed either to imitate environmental textures through the manner in which the various layers are combined, and/or are crafted with recordings of real-world environments to instill an innate sense of space and location.

I have found in my practice that the process of combining ambient and acousmatic sound requires careful consideration, however. As previously mentioned, many of the core

ambient traits potentially seem at odds with acousmatic composition. A method rooted in the experimental manipulation of sound does not necessarily lend itself easily to the calming, meditative effects discussed, nor the simplistic aesthetic traits that often accompany these. Similarly, when working with slowly developing sections of sound, it can become difficult to effectively articulate a sense of musical development, or momentum. This is not always the case, and in certain contexts could even be a desired outcome, but on a personal level, I have often really struggled with the static sound worlds of drone-based music when heard within the context of a formal concert. This may have as much to do with my own listening abilities as any consideration of how effectively the material has been dealt with, but for better or worse, the formal concert is the context in which acousmatic music is most often presented, and in which my own work is likely to be received, and so I have deliberately worked to mitigate this effect. By using more active gestural and phrasing techniques from the acousmatic world to articulate various developments, *in addition* to stabilising materials and environmental sound from the ambient world, I have been able to maintain impressions of progression whilst still remaining rooted in the ambience of a particular sonic scene. Additionally, I have also found value in the use of simplistic, repeating musical devices (a trait very much linked to minimalism and ambient EDM) as a means of providing a sense of momentum. The scenes I compose are often embedded with repetitions, harmonic progressions, rhythmic patterns, and melodic lines in varying degrees of clarity in order to further this cause. Combined, these approaches allow me to embellish what I see to be a certain sense of openness in the musical fabric. This allows the listener enough space to form their own ideas and reactions, whilst also maintaining a balancing portion of readily comprehensible musical development so that there remains enough of a continuing musical narrative to keep this openness within the broad environmental parameters of the work.

Finally, I would suggest that some of the performative norms of acousmatic music, with the tendency towards surround sound concerts and the use of all manner of immersive audio technologies, also make it in many ways the perfect medium in which to experience this approach to ambient-influenced music, despite the aforementioned potential performative cultural conflict. My interest in fusing acousmatic and ambient practices is thus partly a simple bringing together of two sides of my musical interests, but is also led by my experience as a listener. The ambient traits discussed in the previous chapters - drones, repetition, environmental sound, reverb, slow pacing and pitch rooting - are interwoven into the fabric of my compositional practice around an acousmatic core, which can be heard extensively and variously throughout the following portfolio. The works that make up this portfolio were composed to explore this meeting point of two compositional practices, and

seek to provide creative insight as to how they might be combined. The specific manner and context of this process is further explored on a piece by piece basis in part two, which also seeks to investigate the following questions that have been central to my creative practice:

- How can acousmatic and ambient compositional approaches be combined, and what needs to be considered in the process of doing so?
- How might techniques or traits from either practice be used to augment or subvert (depending on the specific creative intentions of the work in question) those of the other?
- How should the musical, social and cultural contextual considerations of acousmatic and ambient composition be accounted for in use together, and might these impact how the finished work is perceived?

Furthermore, to give a few examples of how these might translate practically: Do the often simplistic traits of ambient music provide enough dynamism for engaging acousmatic exploration? Does using ambient traits within an acousmatic process affect their ability to present their core experiential qualities? How can the often energetic, abstract and aggressive materials typical of acousmatic composition be aligned with contrasting ambient notions of drone, environment, meditation and slow-pace? Does the use of environmental sound potentially pose issues when being utilised in a medium that, by definition, is focused on the exploration of sound without source? And is it possible to create an effective ambient experience of a particular location (real or imagined) whilst maintaining engaging acousmatic development?

Part 2: The Portfolio of Compositions

This section considers how musical materials and ideas associated with ambience in music are explored through each of the pieces contained within the portfolio. Each work is discussed individually, in chronological order according to their date of composition, with the commentary drawing attention to some specific areas of interest:

Overview - How did the work come about, what are the driving forces and where do the source materials originate from?

Ambience in 'The Work' - How was the piece composed, and which approaches to ambience are embedded within?

Conclusions - What did I learn about ambience from the compositional process and how do I see the pieces now, in the context of the portfolio as a whole?

The final chapter (Final Thoughts) further reflects on the portfolio as a whole, and discusses a number of considerations relating to its wider context.

Extractions

Stereo, 09:58

Overview

Extractions was written in May 2015 as part of the Furnace Park Project - a collaborative initiative focused on the regeneration of an old industrial area close to the University of Sheffield Sound Studios (USSS). This project saw a collective pooling of audio recordings, made by a number of local sound artists, from which we each created sonic responses. As it happened, I ended up using almost exclusively the materials I recorded myself. These consisted of a soundwalk undertaken from USSS to Furnace Park and back again, alongside a number of static soundscape recordings taken from within the park itself, standing high on a shipping container in order to position microphones above the surrounding walls. The title alludes to the primary manner in which the recordings were developed, with a focus on

extracting sonic focal points from the busy cityscape that dominates much of the source materials. The materials gathered were predominantly cityscape recordings, featuring the sounds of traffic, people walking, wind rustling various objects, a continual, pulsing low-pitched rumble, courtesy of nearby engineering works, as well as more intimate materials such as the sounds of my own feet and breath. A number of hidden details in some of the smaller elements of the cityscape were also later revealed in greater depth in the soundwalk materials through closer proximity recording in a comparatively quiet setting.

Ambience in Extractions

Ambience was explored in various ways during the composition of *Extractions*. Firstly, and most importantly, through the use of environmental materials that innately fostered a sense of ambience in the way they captured the sounds of the city. Many of the recordings embodied an impression of distance to the city noise (an effect of the design and location of the park: a rare spacious clearing nestled amongst busy roads in an industrial area of the city), and fostered a general sense of spaciousness. Others appeared to blend and smooth the often aggressive contours of the soundscape, creating drone-like effects, and some were suggestive of closer, less obviously ambient spaces. I was interested in exploring the ways in which these environmental materials might be transformed into and combined with synthetic sounds, and used them to produce an array of materials which could be used to similar effect in the pursuit of ambience without the potential issues of source-bonding associated with the sounds of traffic and the city. These materials can be heard throughout *Extractions*, but perhaps some of the most dominant examples are the layers of high-frequency noise bands and particulate materials (e.g. 00:29, 01:31), whose prominence is used to suggest a distant external environment through the manner in which such materials can mimic the impression of larger spaces and wind noise. I found that impressions of ambience were best maintained when transformations were made into drone-based materials, such as the tonal layer that emerges at 02:04, derivatives of which are also used in the final section (05:42 - 09:58), and a comb-filtered layer that underpins the second section (03:23 - 05:42). These materials allowed me to explore various notions of environmental ambience without overtly revealing the source until the desired moment, when I present them unaccompanied and untransformed in the closing phrase (from 09:24). I also used this introduction of raw environmental recordings to add a sense of spaciousness to the (previously predominantly synthetic) soundworld. Similarly, the aforementioned blending and smoothing effect from the recordings was mirrored through extending the phrasing of the

three primary groups of materials from 02:05, when the gestural phrases that open the work are transformed into elongated drone sequences.

Secondly, I was interested in exploring the different impressions of ambience between two environmental states that had emerged from the recording process: proximate and distal (Smalley, 2007, p. 36). The fluctuation of this perceived environmental state became a long-form feature through the work: Section one (0:00 - 03:23) deals with the sense of moving from the proximate to the distal state. Section two (03:23 - 05:42) reintroduces and more thoroughly explores the proximate environment, and the final section (05:42 - 09:58) focuses again on the distal state. I had noticed that much of the impression of ambience relied on the prominence of the background city noise, and used the previously mentioned layers of high-frequency noise bands and particulate materials to explore these developments. I used these to build toward the first cadential moment at 01:25, in the initial development from the proximal state toward the distal; and kept them fairly prominent before fading to leave just a layer reminiscent of the opening swells by 03:20 for the return to the proximate environment. The absence of these layers in the second section, which is instead led by a comb-filtered, low-pitched drone figure, seeks to maintain a fairly consistent sense of proximal ambience throughout. Finally, in anticipation of the final section, the materials were reintroduced from 05:24, with increased levels of reverb and spectral height, acting to gradually increase the impression of distal ambience. Their continual prominence for the remainder of the work maintained this impression of distal ambience before the final source-bonded revealing phrase.

Thirdly, I was interested in the manner in which the sense of ambient immersion in Furnace Park was occasionally jarred by unexpected interruptions in the soundscape, before quickly reverting back. I sought to emulate this experience across a number of moments in the work. The phrasing of iterative noise materials, for example, acts to momentarily break the illusion of a stable environment whilst also adding structure to the drone-based textures of 04:07 and 04:52, when they appear in sporadic clusters as opposed to the previously-heard consistent streams. Similarly, at 07:01, a downward melodic turn and an abrupt quickening of pace, alongside the reintroduction of noise-based materials from the opening section, sees a repeated dramatically swirling gestural figure splinter the illusion of ambient stasis that precedes it, before this, too, fades slowly away back into the background as if just a passing car (07:29).

Finally, I wanted to explore the use of harmonic and melodic devices in facilitating the incorporation of drone materials throughout the work. I used these to provide structure to many of the drone-based textures, and to embellish a certain level of musical momentum

which in turn was then used to support the development of other themes in the work. For example, the piece opens with a gradually expanding scene that revolves around a series of repeated low-pitched swells moving in pairs through a series of intervals based around an AMaj7 chord, building and releasing harmonic tension. Similarly, a slowly oscillating semitone pitch bend can be heard across 02:31 and 02:48; used to provide tension and shape to the phrase. The descending semitone relationship is also used at 04:29, following a repeated harmonic swell at 03:53 and 04:13, and a similar pitch bend is again used at 06:40 to build suspense ahead of the large gestural event that follows soon after. Finally, between 05:42 and 07:00, an elongated melodic line is drawn between harmonic drone elements to provide a sense of trajectory.

Conclusions

During the composition of this work, I learned that synthetic and environmentally-derived materials can generally be combined freely, but that particular care has to be taken when source-bonding is a possibility because of the potential contradictions and/or conflicts that might arise. The embedding of melodic and harmonic devices within ambient textures was also particularly successful in working to provide structure to drone-based environments. The balancing of two different ambient states proved to be a challenging experiment, however. The differing impressions of ambience from the two sets of materials were quite distinct, which made the act of accurately and clearly translating these to the finished acousmatic work difficult; a matter furthered during performances by the acoustic characteristics and surrounding ambiances of each particular performance space.

Partial Reflect

Stereo, 10:25

Overview

Partial Reflect was initially inspired through experimenting with a collection of instrumental sound materials derived from recordings of a trumpet. The materials themselves were made predominantly from 'non-playing sounds' such as squeaky valves, stiff tuning slides, air escaping, and poorly produced notes. The breath used in the production of sound drew similarities with the wind noise present in many environmental recordings, which inspired me

to combine these with recordings of the Montréal Metro system, holding a connection to the instrumental sounds through their method of production - air moving in a tube. Much of the initial focus fell on synthesising impressions of ambience through the manipulation of these materials. The metallic and structural nature of the trumpet recordings gave many of the recorded materials an inherently reverberant sound quality and lent themselves quite naturally to morphing into drone-based sounds and textures through manipulations with reverbs and time stretching. The work is broadly structured into three sections, each with its own distinct atmospheric tone, and presents a slowly meandering journey through these three scenes.

Ambience in Partial Reflect

Partial Reflect approaches ambience in three main ways. Firstly, I was interested in exploring the idea of stability as an ambient trait. The perception of stability (through the gradual (or perhaps even lack of) change of harmonic, textural and/or environmental musical elements) is often an important aspect of ambient music, and I was interested in seeing how I could exploit this idea in an acousmatic context. Across the three scenes that make up the work, differing combinations of textural, harmonic and environmental development were used to see how such changes might affect the impression of stability. Broadly speaking, the first scene (00:00 - 03:10) explores the transition from instability to stability both harmonically and texturally; the second (03:11 - 06:47) is partially stable: harmonically rooted and texturally consistent, yet with instability introduced through dynamic environmental and granular materials; and the third (06:48 - 10:25) is harmonically unstable but texturally rooted.

Secondly, the piece explores the use of melody for structuring drone-based textures, and the use of pitch rooting as a means for harmonically underpinning such an approach. In both the second and third scenes, an embedded melody acts to cement the harmonic identity of the scene over a drone-based root note, as well as provide a certain sense of predictability with regards to development which helps to reinforce the desired impressions of stability during these sections. Toward the end of the first scene, for example, from 01:46, the newly stable drone environment is structured by a simple melody composed of materials that slowly trace the 5th, 4th, and 6th degrees of the scale, before resolving at 02:33. Melodic leading is also used in the second section, from 03:15. The tonality that was established in the first scene remains, and the wind noise swells that dominate this section are embedded with a descending B minor figure (initially appearing as an oscillating

semitone at 03:40 and 04:02), which eventually concludes at 05:33 after an extended suspension of the 2nd degree of the scale.

Other developments that I used to affect the impression of stability are explored in the following ways:

Throughout the opening passage, dissonant relationships between layers of granular material, brassy swells, and the root drone layer act to provide a sense of unstable harmonic tension that is only resolved around 01:46. This supports a similar development toward textural stability: after a brief, rhythmic gesture opens the work, granular materials are introduced over the drone layer that roots the scene. This happens fairly sporadically at first, occasionally articulated with swelling gestures (e.g. 01:08 and 01:26), before being gradually absorbed by pitched drones and similarly consistent layers of noise and iterative materials, as a drone-based environment gradually establishes itself and the scene collectively reaches a rounded sense of ambient stability. With this term - 'ambient stability' - I am referring to the impression of calm that can be perceived when current streams of development or tension are resolved; the sense of settling, or stasis.

In the second scene, I wanted to see how the dense, swirling textures of the Metro recordings could be used to explore a middleground of stability and instability. The higher proportion of noise-based materials and their dynamic, regular swelling motion add to a general sense of increased pressure that is quickly established, but that remains fairly consistent throughout. Whilst the aforementioned embedded melody suggests a sense of tonal stability, I also reintroduced layers of materials from the previous environment in a comparatively fractured manner (eg. 03:50, 04:42, 05:04), and gradually thinned the texture over time in anticipation of the final dense swell (05:33), to simultaneously unsettle the scene.

Similarly, I used the gentle harmonic resolution that unfolds as the second scene fades (from 06:15) to prepare for the differing impression of instability explored in the third. Here, we depart from the previously dominant B minor tonality, with the first notable event - a bouncing delay figure at 06:51 - sounding a tone lower. This lays the foundation, or rather lack thereof, for the final section. From 07:20, the harmonic core of the scene is led by a group of distant, dissonant drone materials derived from time-stretched trumpet pitch bends that eventually give way to extreme time-shifted versions of themselves, furthering the sense of instability (08:09). With no clearly discernible pitch root, and the environment consisting primarily of inharmonic and/or noise-based materials, a comparatively darker, less obviously stable sense of ambience is established than in the previous scenes. Conversely, however, the textural design of this scene seeks to maintain a certain sense of residual stability. I

developed and extended the accumulatory textural nature of the first scene, and used a number of repeating materials to maintain this element of stability in place of harmonic rooting. A drone-based environment is gradually established with additional layers of pitched and noise-based materials, and the texture continues to build until a sense of saturation is reached at 09:48, from which the piece concludes.

Finally, the work looks at how the pacing of larger structural levels can impact the manner in which ambience is perceived. The transition between scenes was carefully considered, for example. After the first melodic drone sequence finishes at 02:33, a slow transition to the next scene begins that makes use of extended fades. This allows one environment to fully conclude before the next emerges, and a similar approach is used between scenes two and three. Consistency is often an important aspect of ambient music, and too fast a transition would have potentially been rather jarring. In a similar vein, the sedate pacing of the environmental swells of the second section allows for a continued sense of consistency despite their wide dynamic range. This slow approach also allowed me to use highly active iterative sound materials within slow-paced ambient environments. Despite many of the layers of sound used throughout the work being relatively active in themselves, they were most often moulded to follow the contours of the drone layers they coexist with and so effectively became a consistent part of the environment.

Conclusions

This work showed that the tone-based structuring approaches uncovered in *Extractions* could be developed into more complex melodic frameworks, which in turn, proved effective tools when composing the melody-led drone-based environments. They also embedded a sense of obvious musical progression that I believe helps to encourage a more ambient-minded listening approach. With the explored variance in stability, however, and each scene embodying a sense of ambience in quite a distinct manner, I feel that overall the most effective scene was the third. This may in part be a result of the more simplistic harmonic and textural design of the final scene, including the lack of embedded melody. The unsettled atmospheric nature and sense of continual building created what I feel to be a really immersive conclusion to the work. That the final scene also happens to be the longest, if only by a handful of seconds, potentially suggests that another area to be further explored is duration. Perhaps the first two scenes would have been similarly effective had elements of their harmonic and/or textural framework been extended and/or otherwise obscured, minimising their presence. Finding the balancing point of these structural approaches -

where they aid in a musical manner but do not detract from impressions of environmental ambience - is something I sought to explore in many of the works that followed.

Ceramos

Stereo, 13:15

Overview

Ceramos was inspired through the creation of a dynamic array of gestural materials using foley-esque techniques. The title alludes to the large ceramic vase which provided the majority of the source materials for the piece: microphones were suspended inside the vase, and piezos attached to the body whilst the vase was struck with various objects such as pencils, lengths of metal wire, and strips of cloth. A second set of sound materials was created by tearing apart pieces of fruit, burning candles and shaking water bottles, and the work also makes use of an autoharp, with a particular focus given to the resonance of aggressively plucked open strings. The work explores how these materials could be developed and brought together through both the ambient and acousmatic sides of my compositional influence. Accordingly, the work draws from a wide influence base, including the style of ambient artists such as Clark and Fennesz, as well as more traditional acousmatic treatment of material from the *Musique Concrète* tradition; using elements of rhythm, repetition, drones and pitch rooting to underpin a gesturally dynamic and active acousmatic exploration of the varied set of source materials.

Ambience in Ceramos

In approaching this work, I wanted to step away from the drone-dominant, slowly evolving sound worlds of the previous two works to explore interweaving acousmatic materials and ambient approaches in a different, perhaps less obvious, manner. I wanted to explore wider ranges of intensity and contrast between sections than in previous works and to see whether it was possible to retain an impression of ambience whilst doing so. Additionally, I wanted to begin exploring how rhythmic elements, often integral to the impression of ambience with regards to the minimalist movement and ambient EDM, could be used within an acousmatic context.

Ambience in *Ceramos* is thus explored in a supporting role; more as an Eno-derived “atmospheric tint” (Eno, 1978, para.3) that acts to surround and connect an otherwise predominantly acousmatic sound palette, as well as to provide contrast. Structurally, the work was designed in four sections: two relatively slow-paced, more obviously ambient-influenced sections bookend the middle two, which move from building a dramatic sense of acousmatic aggression into establishing rhythmic dominance. Across its duration, this development unfolds as a balancing act between ambient and acousmatic influence; on both a smaller, phrasal level as well as between larger sectional divisions. Each section of the work approaches ambience in a different manner, and thus will be discussed in turn.

In the first section, ambience is explored through a series of slowly fading and rising textures that are interspersed between three aggressive, plucked string gestures (0:01, 0:57, 02:22), which structure the section. I created calming, cyclical, pseudo-environmental textures with three primary layers of synthetic materials: a drone layer introduced at 0:06 that roots the section in the tonality of B (derived from the reverberations of the string stikes); layers of slowly oscillating noise-based and granular materials (0:32); and resonant, particulate materials (0:50) that act as a moving proximate layer on top of the otherwise distant, fairly stable texture. Between the sharp interruptions of the string gestures, I used these textural phrases to act as contrasting moments of pause that allow the acousmatic impact to gradually fade into the surrounding ambience before the next occurrence. I also used them to subtly introduce materials that act to suggest incoming change in the ambient/acousmatic balance. This includes the pulsing materials at 01:51, for example, which from 02:58 then begin to slowly shift and evolve, as well as gestural granular materials (03:26). At the end of the section I used these new materials to push the scene into an accelerating, downward trajectory which shatters the impression of ambience, and brings about the start of the next section with a more frantic acousmatic aesthetic.

In the second section, I wanted to see how drones and harmonic structuring could be used to aid the impression of connectedness between gestural materials and maintain a sense of surrounding ambience. These support the otherwise predominantly acousmatic treatment of material in what eventually coalesces in a passage of seemingly exponential growth. Over the course of this phrase, a gradually widening impression of ambience is accumulated through reverb tails, a drone layer and the addition of a layer of high pitched noise materials. The drone layer also roots the new scene at the interval of a fourth to the previous section (04:17) to instill a sense of harmonic tension, and I used minor third transpositions of widely panned swirling gestures to build on this tension across a series of short, quasi-diminished melodic phrases into a cadential moment at 05:04. After a sudden

cut which acts to momentarily break the sense of ambience, and hint again at incoming change, a dramatically crescendoing phrase begins at 05:13. In this phrase, which is composed of the same core materials as before, I used the stabilising ability of the drone layer to contrast with the layers of now highly active, densely chaotic and noisy gestural materials, as it builds to its dramatic conclusion at 05:59.

In the third section (06:01 - 09:12), I wanted to make a feature of the pulse materials heard previously and their rhythmic nature, whilst also gradually building a sense of surrounding ambience across the section's delicate starting-point toward its ending sense of textual saturation. I used simple, repeating, rhythmic patterns, which emerge as the texture builds with additional layers of material, to add a cyclical, hypnotic effect to the scene. This includes a high-hat-esque ticking figure (06:52), as well as rhythmically reworked gestural materials from the previous section. The sense of rhythm is solidified with the introduction of a 'kick' at 07:52. This section also uses a number of drone layers to support and shape the above development, which I then used, from 08:43, to engulf the rhythmic texture and reach the targeted sense of saturation.

With the final section (09:13 - 13:14), I wanted to provide a sense of balance to the high level of activity present in the previous sections, and to create an impression of reflective, retrospective ambience; returning to the elongated, slow moving aesthetic that opened the work. I used a busy, resonant filtered texture for contrast in place of the drone layer with which I would typically root such a scene, but that nonetheless provided a relatively stable sense of background ambience. Over this, I then laid a range of previously explored sound materials in a proximate but less structured manner than in their initial appearance, and with additional filtering and reverb to work toward the sense that the listener is reflecting on moments passed (specifically, 09:23, 09:50, 10:08.). The scene is also punctuated by intermittent autoharp strikes (09:13, 09:28, 09:44.) to further this impression. I then used the gradual introduction of a simple, repeated melodic line (first audible 10:43) to again add a cyclical, hypnotic effect to the soundworld. Whilst the proximate materials stay relatively constant throughout this closing phrase, I also wanted to explore transitioning between background layers, and gradually crossfaded the filtered texture with sweeping waves of drones and pulsing materials from around 11:01 until the end of the work.

Conclusions

A far less overtly ambient work than those that preceded it, *Ceramos* strikes, I think, an exciting balance between the two compositional practices that define it. The fundamentals of

'ambient sound' allowed me to bring a wide range of source materials together in a work that also has a wide stylistic range; with moments of drone-based ambience, dramatic passages of experimental sound development and cyclical textural scenes. I had been unsure initially about how effectively the third, rhythmic section would fit within the piece as a whole; concerned that it might appear too jarring in the context and that some of the specific materials used may not feel appropriate. Ultimately, however, I think it worked well, with the sectional nature of the work mitigating much of my anticipated worry. I feel the distinct junctions between sections, by contrast however, prevented the creation of the consistent impression of environmental ambience that had been sought in the previous works; and suggest this work is perhaps best approached not as an ambient acousmatic work, but as an acousmatic work with ambient influence.

Steel and Ivory

Stereo, 10:15

Overview

I composed *Steel and Ivory* in order to explore how a sound palette and techniques closely aligned with those so consistently used in the 'popular' ambient music genre could be used in an acousmatic context. As such, the work focuses on using harmonic drones with soft, synthetic timbres, and subtle rhythmic and melodic elements throughout, to embody the calming, introspective nature and perceptive intentions typical of the style. This approach was inspired in part by the Monty Adkins ambient/acousmatic album *Fragile.Flicker.Fragment*, the genre-crossing nature of which was inspiring to me from an experiential perspective. I was particularly interested in the manner in which the dominant drone environments were articulated with noise-based materials, as well as to the drawn out melodic lines embedded within the textures of the opening track, *Memory Box* (Adkins, 2009). From my listening practice, I had found these features to be particularly effective in fostering a sense of immersion and I wanted to use similar approaches in this work to accentuate the swells of the drone-based sounds, as well as to structure the central, rhythmic section of the piece.

This piece was composed from two sets of source materials. The first: recordings of improvised scalar piano playing in Eb dorian, with a soft, felt-muted tone, and the second:

percussive, metallic recordings made with a west-african mbira, or thumb piano. These two instruments were chosen partly for their convenience - they simply happened to be close to hand in a moment of creative inspiration - but also because of the possibilities for combining the two; as well as being the closest approximate tuning to match that of the mbira, the tonal ambiguity offered by the modal playing also offered an opportunity to further explore harmonic ideas related to ambience. The juxtaposition of their sonic similarities and differences ended up being the driving force behind much of the musical development, and over time, the piece also grew into a compare/contrast exploration of the harmonic meeting point of these two instruments, and of the noise/pitch relationships between them.

Ambience in Steel and Ivory

Ambience in *Steel and Ivory* is thus approached in a number of ways: as a product of the source materials, and through the utilisation of drones, repetition, pulse and melody as stylistic features. Firstly, and as previously mentioned, harmonic drones with soft, synthetic timbres were used extensively for the manner in which they innately suggest ambience through the proliferation of similar materials in the popular genre. These can be heard in the first minute, for example, which consists of a slowly evolving figure that moves through a series of chord voicings uncovered in the recordings. I also explored combining two sets of inharmonic materials with these drone layers - the first comprised of bubbling, granular figures (0:17) that follow the swells present in the drone material, and the second a set of gestural, metallic rings (0:26), whose gradual development and phrasal elongation provides a focal point to draw the listener's attention. Derivatives of these same drone materials were also used toward the end of the work and underpin the central rhythmic section, only briefly dropping from prominence between 05:30 - 06:30, when a set of predominantly inharmonic drones instead took focus.

Secondly, I continued developing the use of harmonic and melodic devices to articulate certain developments in the soundworld; seeking to manipulate the listener's expectations, and to lean partly into the relaxed perceptive intentions of much popular ambient music. At 01:01, for example, a rising Eb minor triad 'piano call' announces the first significant event, and after a slight suspension, the fifth that is left lingering is resolved to the tonic in a swelling figure that becomes a repeated feature. This swell is heard again and further developed at 01:24 and 02:01, the latter including a slight downwards pitch shift in the lower sinusoidal materials to introduce tension. There are also a number of melodic passages in the work. From 03:09, I used pitched mbira strikes to trace an elongated melody over the developing rhythmic texture to instill a sense of predictable musical development.

Similarly, a subtle, slowly rising melody that starts at 05:19 draws attention to the drone-led environment switching focus to the inharmonic qualities of the Mbira materials. Following this, intermittent melodic and phrasal focal points (07:00, 07:55, 08:26, for example), gradually help to build anticipation toward the muted final phase.

Thirdly, I used repetition throughout the work for a number of purposes. At 02:18, for example, a repeated piano figure acts as a momentary 'cut' to build suspense in anticipation of a change in the environment. Repetition then takes a central role in the rhythmic passage that emerges following the introduction of pulse at 02:41. Here, I established a rhythmic groove at 03:09 with the introduction of looping elements; using a number of noise based rhythmic layers to install a hypnotic sense of perpetual repetition. A subtle, syncopated cell becomes embedded in the rhythmic texture through a combination of tonal and inharmonic materials and a 'kick' is also introduced (03:53) to cement the rhythmic development. I then re-introduced many of these materials in the final passage of the work, starting with the initial pulsing figure at 08:44. The kick figure returns at 09:06 and a solid rhythmic texture is once again established as intermittent melodic fragments continue to articulate the scene.

I also used a number of approaches to explore and embellish on varying notions of ambience to bring the work together as a whole. In the opening passage, for example, I used the addition of a sub oscillator and clouds of high pitched noise materials to gradually widen the sense of spectral space and give the impression of encroaching external environmental ambience. Later, at the end of the central rhythmic passage, I wanted to maintain an impression of ambience whilst transitioning out of focalised rhythm. To do this, I faded the rhythmic elements gradually from around 04:30 to reveal relatively static drones and layers of noise; gently reverting from the hypnotic pulse-led texture to an impression of timeless ambience similar to the start of the work. I then used this drone-based texture as a basis from which to explore the impression of stasis evolving through instability into a sense of equilibrium. This development starts with an array of sporadic noise-based materials gradually building in frequency and spatial activity between around 05:20 - 06:30, before the re-introduction of melodic fragments act to somewhat settle the scene. Additional harmonic materials are gradually added underneath the increased inharmonic activity and eventually pulse is reintroduced. At the end of the work, rhythmic elements are faded out alongside the layers of drone material to bring a gradual end to the piece.

Conclusions

Steel and Ivory grew into an interesting project, and required me to adopt a number of different approaches to previous works with regards to dealing with material and having a

specifically targeted sonic identity. Until this point I had typically been approaching sound recording and/or development in an exploratory manner: experimenting and seeing what impressions of ambience were possible from what I created. Here, however, by deliberately using materials that sounded somewhat inescapably ambient courtesy of their rich harmonic nature, and with Adkin's *Fraglie.Flicker.Fragment* in mind, I had to deliberately work at forming them into a similarly engaging acousmatic experience, and not to allow myself to create the simple, pleasing ambient environment I felt the materials were often leading me towards. Transitioning between drone- and pulse-led textures allowed me to explore two different impressions of ambience, yet also worked towards the impression of momentum through a continuously evolving narrative embedded within the work. This piece also confirmed that utilising elements from more popular-orientated approaches to ambience in music could produce interesting results; something I explored further in a number of the works that followed.

Under Fluid Skies

Stereo, 12:08

Overview

One notable aspect of ambient music that I found through my listening practice was the ability to convey emotionally-charged feelings such as calm and tranquility. I was interested in exploring emotion more directly within my work, and composed *Under Fluid Skies* with an emotive sense of ambience in mind. The initial inspiration for this piece came from contemplating the nature of water, and the work that followed somewhat reflects Eno's ideas regarding allowing "the mood of the landscape to determine the kinds of activity that could occur" (Eno, 1986, para.2). Water's volatility and dynamism - life giving yet also potentially devastating - provided a great, contrasting starting point for a work that would explore the extremes of emotion. From a sonic perspective, water also allowed me to create a set of varied source sounds; providing all of the material for the work with the exception of a single sine wave. There are two primary groups of materials: one derived from recordings made with a swimming pool hose, typified by pitched, resonant taps and percussive swells; and the other, a wide-ranging group derived from swirling water in various household objects, draining sinks and bathtubs and running central heating systems. These lent themselves

towards manipulation into various forms of iterative, gestural and textural materials respectively. Structurally, *Under Fluid Skies* took shape in the *Musique Concrète* tradition as a product of the materials themselves, with only my overall intentions toward exploring emotive notions of ambience and a large breadth of intensity working to dictate some of the higher-level characteristics.

Ambience in Under Fluid Skies

Similar to my approach in *Ceramos*, ambience in *Under Fluid Skies* is approached in various ways, but primarily in a supporting role. I wanted to further investigate the idea of using overtly acousmatic materials in an ambient manner, particularly with using them to create complex, pseudo-environmental textures. I initially created a number of drones to be used alongside less-processed gestural materials, and also noticed that a number of materials were suggestive of pulse and/or rhythm. This led me to further explore the combination of rhythmic elements with (pseudo-)environmental sound, and provided much of the impetus to explore the aforementioned emotional range I was interested in. As such, moving from a dynamic, active, and then rhythmically charged first half in which harmony and pulse take a central role in structuring sections and maintaining a sense of momentum, the second half of the work takes on a melancholic, introspective tone that places more focus on drone-based sounds and slower textural development. Across its duration the work seeks to embody the following emotive ambient journey: (0:00) Anticipation - (02:40) Stability - (04:45) Apprehension - (05:36) Aggression - (06:35) Retreat - (08:44) Uncertainty - (11:05) Acceptance.

Firstly, complex pseudo-environmental textures occupy the majority of the first half of the work, and I used these to introduce much of the work's material across two gradually building passages which initially form impressions of unstable and chaotic environments. In the opening section (0:00 - 04:35), for example, I used drone layers, reverb and a heightening pitch bend to support movement between various proximate sounds and create a sense of surrounding ambience, whilst also expanding the impression of spaciousness over time. These proximate materials include resonant granular trickling materials from 0:00; low-pitched swelling figures at 01:07, 01:14, 01:23; widely-panning particulate gestures from 01:33 and an exposed sequence of resonant tapping materials at 02:00. I built the dominant texture of the second section (04:35 - 06:35) in a similar way, except with the texture this time predominantly composed of rhythmic noise-based layers. Both of these textures appear unsettled at first but constantly build and eventually reach a sense of stability: In the first, at 02:40, the development eventually coalesces into a harmonic (Eb major) drone-led

sequence that provides an atmospheric, euphoric sense of long-awaited arrival and relative stability. In the second, however, stability was suggested by the sense of metre. Although only a simple pulse is present at first, the phrasing of the noise burst materials introduced at 05:14 hints at septuple time, before this is then solidified at 05:36.

Secondly, I was interested in exploring how a general sense of decelerating would affect the impression of ambience. In order to embody the intended low-energy emotions of the second half of the work, it was clear the sustained textural density and sense of momentum present in the first two sections would need to be challenged. In the third section, starting at 06:35, I worked to create a reverberant scene designed to give the impression of being underwater, using slowly shifting pitched drone materials and repeated, rotationally panning resonant taps, distant reflections, hydrophone recordings, and filtering to do so. I used these materials, alongside the lack of pulse and functional harmony, to embody a calmer, more muted ambience; yet one that held a sense of residual unease. In comparison to the earlier sections, this impression of stasis was intended to feel quite jarring, and for over two minutes the scene appears to be stuck in place with little obvious development. Only occasional melodic fragments (07:16, 08:16) and momentary rhythmic interruptions (07:07, 08:30) encroach on the haunting ambience. I continued this slower aesthetic into the final section, starting at 10:21, which takes on a hypnotic, retrospective sense of ambience with looping layers of proximate sound taking focus against a backdrop of wide, harmonic drone materials.

Finally, in order to mitigate the likelihood of the sustained textural passages feeling too static, and to better approach the emotional targets of the work, I used a number of approaches to introduce a sense of development to the dominant textures. At the end of the first section, I continued to slowly modulate the texture over a series of secondary swells in line with gradual changes in the harmonic content of the drone layer. I also introduced a number of rhythmic materials (03:10, 03:51) and a dissonant harmonic shift in the drone layer to unsettle the environment. In the second section, I used the solidification of metre to also introduce a layer of low frequency sinusoidal tones. These added a sense of atmospheric depth that I felt aided this pulsing phrase in its climactic nature. The sinusoidal materials were used again for similar effect in the third section, where I sought to momentarily interrupt its specific sense of ambience with two waves of activity. I wanted these to act like a dramatic final gasp for air before slipping under the water's surface, and created two hard gestural slaps followed by swirling drone figures, pulsing sub-oscillator tones and clouds of noise materials, at 08:43 and 09:03. In the final section, I used drone layers to initially lend a dark tone to the scene through densely packed harmonics, before

morphing these into a descending pitch slide that gives way to a more positive aesthetic around 11:10; a reversal of the harmonic transition heard at the start of the work. Initially texturally dense, this final sequence was also thinned over time to gradually expose unprocessed source materials and conclude the work with a cadential harmonic turn.

Conclusions

I found the atmospheric range of this work, especially the stark emotional contrast between the second and third sections, to be really exciting, and this piece remains one of my personal favourites from the portfolio. I believe the work also manages to create effective impressions of physical space from non-environmental materials; the static, uncertain environment of section three also provides necessary balance to the driving rhythmic power of section two. I feel that *Under Fluid Skies* achieves most of what I set out to explore, but that future developments along a similar line would potentially benefit from leaning further into the extremes, potentially to the subjugation of intermediary/preparatory sections such as the first and last in this work.

Zephyr

Octophonic, 15:05

Overview

Zephyr was composed between May and September 2018, at USSS. The initial idea for the piece came from a chance synchronicity between some recordings I had been making of a number of musical instruments acquired whilst travelling - namely an Ocarina, some crude percussion and a wooden whistle - and of the environmental soundscape of my home and work life at the time of composition. My house at the time had a garden built on decking which extended over a steep drop to a river below, and backed into a thick canopy of tree cover. As such, birdsong became a constant feature of my immediate soundworld at home, from the dawn chorus through to owls calling at dusk. I was also spending a lot of time recreationally in nearby woods, and this constant exposure to nature had a profound effect on me at the time. The house became a real oasis of natural calm, nestled among the pervasive human and industrial soundscapes generated by nearby housing estates, a recycling centre and frequent mechanical interruptions from the car garage down the road.

In order to effectively capture the sense of immersion I had been feeling, particularly on mornings spent deep in the woods drenched in birdsong, I decided that the piece would be composed in surround sound. This piece was my first multichannel work, composed in eight channels, and I fell into a working routine whilst composing in which I would escape to the woods first thing, often making recordings, and then commute into the city to work in the multichannel studio at USSS, before returning home at the end of the day. This constant transition between natural and industrial soundscapes became one of the central points of exploration in the work, and I was always composing with this stark contrast fresh in my mind. *Zephyr* is, in many ways, a love song written for the city and summer in which it came to light, and the most ambient work of this portfolio.

Ambience in Zephyr

Ambience in *Zephyr* is most obviously explored through the extensive use of environmental sound and drones, but the work also makes use of repetition, slow pacing and rhythm to explore the contrast between the different ambiances of the aforementioned natural and industrial soundscapes. I wanted to use this environmental polarity as an opportunity to further develop the emotional ideas explored in *Under Fluid Skies*, and to make more of the divergence between extremes. As such, I was particularly interested in leaning strongly into the experiential impressions of stillness and calm that are so common amongst ambient music; developing on my previous work through extended durations, relative textural simplicity, and the focalisation of environmental recordings. Structurally, the work can be seen as a central sequence of natural environmental scenes bookended by rhythmically-focused sections that embody impressions of industrial ambience, albeit with instances of cross-over between. I also wanted transitions between scenes and sections to be gradual throughout in order to effectively maintain the sense of ambience and to highlight the occasional blurring of these two coexisting states.

As well as through the innate impressions of ambience captured in the recording process, I worked to present these two states of environmental ambience - natural and industrial - in different ways:

I chose to represent the natural state primarily through the elevation of drone-based environmental sound and the absence of regular pulse, as well as with slow pacing and generally wider impressions of spaciousness. At 02:35, for example, I introduced a soundscape occupied by a simmering texture of distant bird chatter and rustling leaves, subtle rhythmic elements (02:48) and lower sinusoidal tones (03:14) that gradually drift in and out of a far-off, just-audible earshot, as they often did in reality. I also used a

birdsong-esque melodic 'call' (fig. 1), at 03:24, which was the primary melodic source from which much of the musical development occurred and became an important referential point through the rest of the piece. In this first instance, this 'call' is 'answered', with the introduction of additional melodic figures (03:41, 04:04) and drone material as the environment slowly develops. I then used a gradual fade to maintain the impression of ambience from 04:54 to 05:23 and prepare for the next scene.

Fig. 1.



I repeated Fig. 1 at 05:24 to initiate a series of three swelling phrases (05:30, 05:58, 06:16). Through a series of transpositions and modulations that transformed this melodic material into phasing, pulsing drone materials, I wanted to transport the listener from the seemingly natural sound world of the previous scene, toward a new, internal, timeless space, in which the following five minutes unfold in a manner akin to a dream sequence. I also used the repetition of other elements to further the hypnotic effect: first, a looped portion of harmonic drone material remains from the swelling phrases, and this is then accompanied by repeated dry, knocking sounds (06:48, 07:17) that fade in and out of earshot, clearly disconnected from the primary sound world as suggestions of 'industrial' influence. I then faded the synthetic drone environment to gradually give way to a reflection of the reverberant soundscape heard earlier around 07:40, with pulsing low sinusoidal tones morphing into another repeating loop (08:17, 08:33, 08:50, etc.). I also sought to increase the sense of spaciousness with the increasing presence of bird chatter and layers of noise, eventually building toward a triumphant, yet somewhat mournful, final bird call figure at 10:24.

Conversely, I chose to represent the industrial state with the focalisation of rhythmic elements, regular phrasing, the use of harmony to influence tone, and the application of certain sound effects such as distortion; using these elements throughout the opening and closing sections of the work to do so. The piece opens, for example, with an ocarina-derived 'birdsong' oscillation quickly descending into a bouncing rhythmic pattern to highlight the idea of industrial encroachment on natural ambience (0:30). I underpinned this pattern,

which is composed of four separate rhythmic elements panned in diagonal stereophonic pairs, with harmonic drone layers that initially centre around a major tonality. I built on the texture in eight-bar phrases whilst gradually increasing the sense of tension and intensity through the introduction of inharmonic materials and the use of distortion, and used a downward harmonic shift across the scene towards a diminished tonality at 01:34. After further development, including the addition of a low pitched sinusoidal figure at 01:50 and a secondary ramp in distortion levels at 01:58, I gradually faded first the rhythmic elements, followed by the drone layer, before introducing environmental materials from 02:08 in preparation for the next scene.

I used a similar approach, albeit with greater dramatic range, at the end of the work, repeating the opening oscillating birdsong figure at 10:52 to signal a return to the environment and material that started the work. I wanted to show a departure from the initially positive sense of ambience that opened the work, however, and used slowly shifting and pulsing materials instead of harmonic drone layers, to do so. I also extended the phrasing of a number of the rhythmic elements more to gradually build tension, and introduced a metallic swelling figure at 12:10 to increase the sense of pace and suddenly steer the scene towards an aggressive, mechanical climax. As mentioned above, I had been interested in further exploring the emotional capabilities of ambience in music, and used this as an opportunity to strongly contrast the central environmental sequence. Accordingly, I built a rhythmic texture that comes to fruition at 12:34 in a chaotic sequence; noisy, distorted and raw, that acts to shatter any illusion of calm that existed before. To again draw attention to the coexistence of these two environmental states I created a moment of respite at 12:51 gives the momentary illusion of some space before the rhythmic texture regains dominance in the following phrase. Similarly, this intermediary sense of ambience is presented in the closing sequence (13:22 - 15:02), which places isolated focus on the bouncing rhythmic elements. I kept these fairly static initially to allow hypnotic panning effects to take hold, accompanying them with subtly reverberant drone layers, before an acceleration toward 14:13 and the brief reintroduction of some drone and rhythmic elements acts as a final flurry of activity.

Conclusions

Reflecting on *Zephyr*, I feel the work was particularly effective in presenting the contrast between and meeting point of the varying impressions of natural and industrial ambience, and I found crafting these two distinct identities of ambience a really engaging process. Exploring the sense of timelessness and differing impressions of distance within the middle

portion of the work in particular, with its reverberant, environmental focus, was a long-awaited development of ideas first formed in *Extractions*. The work also proved to myself that simply slowing down can be a really powerful composition tool, and that it is often possible, in the minimalist way, to do more with less. In performance, the multichannel design of the piece works well, acting to further many of the ideas explored in the work, particularly with fostering a sense of environmental immersion, and also in helping to foster hypnotic effects in the rhythmic passages.

Shadow Fragments

Stereo, 17:50

Overview

Although I had used instrumental recordings in a number of previous works, I was yet to do so in a manner in which the instrumental component was presented clearly, unaltered, or was developed as an instrumental component, rather than as acousmatic source material. The piano in particular has often taken a central role in instrumental ambient music, and I was interested in exploring how I could use the instrument within my own practice; using a central motif as a seed from which to explore a number of routes of development in a range of ambient-adjacent styles. *Shadow Fragments* was written over a six month period starting in September 2018, when the first piano parts were written and recorded at USSS. These materials were taken and developed into the middle portion of the work in the Studio for Electroacoustic Music at the Akademia Muzyczna in Krakow during a residency the following month. When I returned, the piano component was developed further, a concluding phrase composed and, finally, the entire piece was brought together and finished in April 2019. This cyclical compositional process, with the initial piano motif leading to electronic exploration, to more instrumental development, back, and so on, was a departure from my more typical approach in which the material generation and compositional processes are more distinct. This led me toward a wider stylistic range of musical results than I think I would have reached otherwise, and the work eventually brought together approaches from many of the varied musical influences that inspire me - ambient, acousmatic, minimalist, and various modern styles somewhat in between.

Ambience in Shadow Fragments

Shadow Fragments was influenced by a number of styles in the wider ambient music world. I used elements of minimalist piano writing, phasing, looping, as well as (the now typical of my practice) drones and slowly developing textures, to give a varied exploration of the central instrumental motif. In approaching this work, I wanted to particularly focus on the embodiment of hypnotic and meditative characteristics and to place an emphasis on focally exploring repetition; core components of much modern ambient music and particularly relatable to the minimalist movement. I was also interested to see how such a focus could work alongside drone-based textures, and over time the balancing and combination of these two forces - repetition and drone - became a secondary theme of exploration.

Firstly, repetition was central to my approach to ambience in this work, and the vast majority of the piece utilises looping elements in one form or another. The piano sequence that opens the work, for example, focuses on a repeated descending four note figure before moving into the primary arpeggiated D minor motif at 02:26. This motif is also repetitive, and slowly moves through various chord voicings for around three minutes whilst maintaining a certain level of tonal ambiguity. I continued this sense of perpetual repetition into the second section, in which, from 08:46 onwards, the melodic material of the opening section returns. This time, however, it was treated as a sound object for manipulation, rather than a musical cell for melodic development. I used recordings of the core motif truncated to different lengths, layered, looped and filtered at varying intervals to highlight a range of spectral qualities and create subtle phasing effects and counterpoints; inspired somewhat by the work of minimalist composers such as Steve Reich. By stacking increasing numbers of these layered recordings, I also wanted to build the sense of environmental density over time to the point where discernible individual repetitions became inseparable textural passages. Toward the end of this passage, I brought a noticeably shorter loop of piano material into focus to prepare for the now dense texture giving way to a sense of relative clarity and order at 12:01. Here, I introduced a new melodic piano loop and similarly repetitive, widely panned, rhythmic elements. With this sparser texture I wanted, in contrast to the previous section, to explore breaking it down over time. I gradually shortened the piano loop from around 12:48, eventually leaving just a chiming, single note loop remaining which becomes apparent around 14:29 as the surrounding drone layers subside. I then used this, with a second iteration of the chiming loop moving in phase with the first (14:34), as well as an additional final looping motif (15:07) to lay the basis for a hypnotic, reflective finale.

Secondly, much of the above development was supported and extended by the use of drones and textural environmental layers of sound. I gradually introduced the opening musical environment, for example, with a harmonic drone figure, which grows in presence and timbral complexity over the opening minute, composed of gently swelling synthetic tones and layers of shifting noise. I then used these to support the repetitive piano component in taking on an lullaby quality, with white noise swells imitating wind, a slow pulse present in the synthetic materials and a hypnotic panning effect courtesy of environmental recordings of a cricket chorus at dusk, all working towards this goal. Gradual modulation of the piano line over time, primarily with delay, was mirrored in the textural materials, and they also support the piano's sense of musical ebb and flow (e.g 04:04, 04:31). I added a darker, noisier character to the materials in the moments preceding 05:48, when this sequence comes to conclusion and the introduction of a new environment is signalled with a final low-pitched piano strike.

Similarly, I used a layer of harmonic, reverberant drones to support the development of the layered piano recordings described above, from 09:10. I used these to root the scene initially and then to gradually widen the overall sense of spaciousness as high frequencies are increased (noticeable from around 11:14), and a lower sinusoidal tone is introduced around 11:30. I then used a similar approach in the final section, with a gentle backdrop of drone elements and environmental sound supporting the development of the focal looping figures. These too were developed over time: a swelling rise-and-fall figure becomes apparent around 13:00 as the piano line fades; layers of shimmering synthetic drone material grow from 15:34 as a new loop takes hold, and lastly they were gradually faded to leave the chiming loop isolated from 17:30.

Finally, I wanted to explore the harmonically darker and noisy sonic qualities that many of the recordings and textural layers also held. I felt this could provide contrast to the dominant soft instrumental timbres and themes of repetition in the work, and would present an engagingly different notion of ambience. As such, I gave these characteristics focus in the second section. From 06:07, I created a gradually building texture with materials ranging from metallic rings to densely packed pitched drones and clouds of granular noise derived from percussive use of the piano. I articulated this texture with intermittent fragments of piano (06:15, 06:24, 06:39, etc.) and clouds of delayed granular materials to contrast the otherwise consistent phrasing of the rest of the work. The texture continues growing steadily, building suspense ahead of a gestural event at 08:03, which I used to initiate the central layered piano sequence. Some of these materials were then further processed to imitate

distant environmental sound and add a sense of spaciousness in the closing sequence. from 16:00.

Conclusions

Shadow Fragments developed into an interesting work, and I believe makes a valuable contribution to the pursuit of exploring the piano as a source of varying impressions of ambience. The work also allowed me to further develop my use of drone and rhythm-led textures, both when taking focus and when used to support other themes of development. Of all the pieces in this portfolio, however, it is probably the hardest to approach as an acousmatic work, despite the more experimental nature of the second section. The dominance of untransformed piano material in the opening section proved challenging in its sole public performance thus far, and I would suggest that the final two sections could potentially be heard alone as a separate ambient/glitch-orientated work. Overall I feel the piece presents a rather different impression of ambience to many of my previous works. A sense of ambience is certainly apparent across its duration, but the stylistic variance between sections means the specific nature of this ambience is continually evolving. In a way the piece managed to be simultaneously consistent and inconsistent; an intriguing coalescence.

Residual Motion

Stereo, 08:30

Overview

Residual Motion was composed in June 2019 as part of the 'Brooklyn Works to Brooklynism' project, which saw field recordings taken in and around the Kelham Island Museum transformed into a series of musical responses to the area's history, by myself and a group of colleagues from USSS. The Kelham Island Museum houses "the objects, pictures and archive material representing Sheffield's industrial story" (SIMT, 2021), and is home to the River Don Engine - Europe's most powerful working steam engine. This enormous machine dominates the museum both physically and sonically, and became the focus of a large portion of the material I chose to work with when starting to compose. Many of the sound materials it provided were surprisingly delicate, including elongated, pitched, whistle-like

sounds that provided countless opportunities for creating ethereal drone textures. I also formed the structure of the piece around the function of the Don Engine exhibit. The machine only operated at certain times of the day, with a voiceover giving some historical context before an engineer arrived to 'perform' the machine. This created a sense of anticipation and building intensity in the space whilst waiting for the exhibit to slowly come to life, which morphed into a powerful sense of unstoppable momentum as it worked, before gradually dying away as the performance ended. This life-like need to be warmed up before use and put to rest inspired a gradually building form in which everything flows from one phrase into the next without distinct junctions, with a dominant central climax.

Ambience in Residual Motion

In *Residual Motion*, I was particularly interested in seeing how materials and techniques including drones, repetition and slow textural development could be used in conjunction with the primary environmental recordings to expand on and augment the sonic nature of the subject location. Accordingly, there were a number of specific instances of environmental ambience that I wanted to embody within the work.

Firstly, and most importantly, there was a persistent percussive ambience that enveloped much of the main gallery. Many of the museum's mechanical exhibits work continuously, creating a slowly changing rhythmic soundscape that evolves as you move from room to room; individual layers usually asynchronous but occasionally appearing to momentarily fall in step. I wanted to use this as an opportunity to make a central feature of rhythm throughout the work, but discovered when listening back to the recordings that a lot of the rhythmic detail was insufficiently represented. In order to support this aim, and with continued influence from the world of ambient EDM, I created shorter loops of some of the recordings and used two analogue synthesisers to create additional bass and drum materials, with which I could then support and accentuate the innate rhythmic features of the space. I then designed the rhythmic core of the work to reflect various features of this soundscape in the following manner:

I introduced the first of these rhythmic materials shortly before the two minute mark, following an introductory passage in which a dense drone-based texture is gradually formed, composed of looped whistling layers (0:00), pitched drones (0:31) and oscillating metallic noise (0:40). Rhythmic environmental loops are apparent from 01:50, but I wanted a state of flux to persist for a while to mimic the imperfect nature of their appearance in the recordings. By gradually increasing their presence behind remnants from the opening texture, distant environmental sounds, and fragments of voiceover recordings, I sought to eventually work

towards a sense of order and regularity being established with the addition of layers of tightly looped drum material and a synthetic three-note bass drone motif. These were followed by additional high-frequency rhythmic elements and textural layers from 03:30 and the sense of rhythmic drive being properly established at 03:45, when the drum and bass loops take focus. Here, I also locked many of the other textural components into loops to add to the effect, and added a clear, on the beat, kick drum. I wanted this moment to effectively act as an EDM-inspired 'drop' to mimic the instances of soundscape synchronicity; albeit at an ambient-friendly tempo and in the midst of a dense environmental texture.

In order to mimic the act of moving from one room to another, I gradually faded this initial rhythmic texture after sixteen bars of repetition, creating a transitory lull which sees many of the noise-based components receding to leave the bass drone loop isolated under layers of subtly whistling ethereal materials at 05:23. I used this residual loop to maintain a sense of momentum, and then reintroduced environmental rhythmic components from around 05:44 to begin building the next texture. For the second rhythmic phrase I wanted to make the sense of pace feel more frantic, to mimic the manner in which the Don Engine gathered steam. I used an increased level of activity in the higher-pitched elements introduced from 06:06, and the rapid addition of more looping layers, to do so. This leads to a series of partial climaxes at 06:30, 06:53 (with the reintroduction of the kick figure), and 07:17. This last instance also introduces a final layer of iterative high-frequency materials for a complete eight bar cycle, following which the texture begins to wind down and gradually fades away as per the Don Engine exhibit.

Secondly, I was interested in exploring a different approach to developing long-form textures to better combine with the intended structure of the work. Despite the textural complexity of the recorded environment, with the sound of all manner of machines, exhibits, visitors and working staff filling the space, it retained a consistent sense of atmospheric ambience. Whilst recording, I found that what could have easily been an overwhelming sonic experience still held many of the calming, hypnotic qualities we attribute to ambience in music. I sought to represent this duality of chaos and calm with the manner in which the work's complex textures with multiple moving parts were morphed into a single slowly evolving form; at least one sonic layer remains consistent between each instance of change. Similarly, the single-section, continual-evolution format I used was inspired by the subject, but is also common throughout much ambience-influenced music. Although I have widely used slow development and gradual transitions before, most of my previous works had remained quite sectional with clear junctions between scenes or ideas, and *Residual Motion* saw a departure from that approach.

Finally, the voiceover from the Don Engine exhibit was such a prominent aspect of the soundworld, echoing through the halls distinctly different in sound to anything else in the space, that I thought it was important to make use of it creatively. I was wary, however, not to be too transparent in its use for fear of alienating listeners without a contextual understanding of the work. With this in mind, I manipulated the recording to the point at which individual words became almost incomprehensible, yet the core sonic impression remained. These materials can be heard from around 02:30 to introduce the 'engine' of the piece as they did in the museum itself.

Conclusions

The process of writing *Residual Motion* was really enjoyable; the relatively short duration and continuous prominence of rhythmic devices proved to be a significant deviation from much of my previous work, and forced my approach to become a compact, three-way balancing act between my intentions toward acousmatic sound exploration, environmental textures and the prominent sense of rhythmic ambience. I believe the work manages to strike this balance well, and showcases the ability of subdued rhythm and drones to provide structure and momentum to otherwise fairly chaotic environments. Most importantly, I believe the work stayed true to my initial ambitions toward supporting and expanding on the sonic identity of the Kelham Island Museum. I was wary whilst composing of the possibility of over-developing or adding too much to the environmental recordings - clouding their appearance - but I think the work manages to successfully skirt that boundary. In a similar manner to *Shadow Fragments*, however, some of the stylistic leanings of the work likely suggest potential conflicts in approaching it as an acousmatic work.

Salten Drift

Quadraphonic, 13:16

Overview

Composed over the summer of 2019, *Salten Drift* continued with the increasingly environmental outlook of the portfolio, using field recordings made during a weekend spent on the north east coast of England to explore the ambience of the area. The primary source materials were recorded on the pebble beach of a small seaside town called

Saltburn-by-the-Sea, during an intense, immersive sonic experience whilst walking along the seafront with an incoming tide and a distant building storm. These materials were predominantly noise-based, with the wind, swelling waves and movement of the pebbles dominating the soundscape. The recordings were made using two sets of microphones: a pair of binaural headphone mics to capture the surrounding ambience of the scene, and a portable stereo recorder, angled toward the sea in order to provide front-oriented detail. Additional materials were gathered in the pier's arcade, and on the nearby Saltburn Cliff Lift, a Victorian-era funicular tram. *Salten Drift* was composed in four-channel surround sound in order to mimic the spatial experience on the beach, using a more subtle approach to multichannel spatialisation than in *Zephyr*. The additional two speakers were primarily used in order to create more immersive drone-based textures; providing the sense of three-dimensional space necessary to more accurately depict the unbalancedness of the soundscape of the beach: front-heavy from the seaswell, yet with noticeable reflections coming from the cliffs behind and the sound of the wind from all directions.

Ambience in Salten Drift

This work, the last of the portfolio, brings together an array of ambient approaches and a palette of environmental recordings, seeking to build on the approach of *Residual Motion* in a longer format. Following a series of rhythmically-charged, intricate works, I wanted to further explore the idea of doing more with less, and to let the environmental recordings speak for themselves, so to speak. As the work developed, I was drawn to some of the more dynamic aspects of the soundworld, and gradually developed from focusing on free-form atmospheric sound towards relative order with discernible pitch and repetition across the duration. I consciously worked not to lean too much into these elements, however, and left them relatively unaltered from how they first appeared in the recordings. As such, the first half of the work focuses on drone-based environmental textures, and the latter on more complex repetitive environmental loops. The work was loosely structured around the idea of presenting three scenes that explored different aspects of the soundworld, in a similar manner to *Partial Reflect*, each linked to one of the recording locations. Additionally, one of the residual memories I had of the trip was a feeling of constant, atmospheric unease (likely a combination effect of poor weather and the eerily quiet out-of-season seaside town) and I wanted to somehow embody this feeling within the work. The relatively static nature of this soundscape-oriented work combined well with this more nuanced sense of tension and release, allowing me to slowly build and resolve such feelings across the course of large sections rather than on a smaller phrasal or gestural level.

Ambience in this work thus occurs primarily through the use of environmental recordings that explore a tense coastal scene. These were used to form the basis of drone-based textures that rise then recede like the tide; composed of distant, consistent wind and sea noise, faint whistling wind reflections (0:38) and dissonant pitched figures (01:15). I wanted to ensure the scenes developed at an unhurried pace, and that the natural impression of ambience from the recordings was supported and built on by the more synthetic layers of processed sound I combined them with. Over the opening five minutes, for example, the environmental recordings are presented focally, gradually evolving whilst the sense of spaciousness is increased through the addition of low-pitched, swelling drone figures (01:45), high-frequency materials (02:02) and increasing levels of reverb. Over time, I introduced complexity by adding more layers of sound, for example with a layer of high-frequency noise materials beginning to oscillate ahead of a brassy drone layer being introduced at 02:56. In the latter half of the work, I used the raw environmental recordings more subtly and sparingly to support the development of the loop-based textures and add to the general sense of atmosphere.

Secondly, in both the second (beginning at 07:17) and third (10:07) scenes, I wanted to explore how the sense of ambience was affected when using loops of environmental materials, instead of the longer sections of recordings I typically use to form textures. Despite using repetition regularly throughout previous works, this had predominantly been done on a smaller level and/or with instrumental or highly processed sound materials; seeking to (re)create impressions of ambience and effectively negating recorded ambience. In order to retain a certain sense of the innate, recorded ambience, and to add an additional impression of perpetual momentum and cyclical, hypnotic effects, I used loops of environmental recordings of around 8 and 4.5 seconds respectively to form the basis of each of these scenes. A shorter loop is also used briefly toward the end of the opening scene (from 05:22) to build suspense ahead of a cadential event.

Thirdly, a number of other materials and techniques were used to embellish the targeted impressions of atmospheric unease and perpetual momentum in places. This included intermittent footsteps (0:40), which I quickened at times (e.g. 01:39) to momentarily unsettle the environment and articulate developments in the drone layers. Similarly, from 03:22 to 04:22, I used a repeated rhythmic pulse that fades in and out of earshot to bring the environment to a sense of tense saturation before calming again slightly. Similarly, I used an extended sea swell figure at 06:28 to resolve accumulated tension and bring a close to the first scene, and mirrored this approach before the final scene at 09:53. Throughout the second scene, I used materials with substantially increased levels of activity in the farther

extremes of the frequency spectrum to envelop the central looped figure and take the previously quietly simmering sense of unease in a more dynamic, dramatic direction. This particular phrase reaches its zenith at 09:24, as both the high and low ends of the environment peak in prominence. In this section there are also clearer cadential moments, such as the sudden ramp in intensity at 08:27, and I embedded a melodic sequence (typified initially by a falling minor third relationship between repetitions) in the looping figure to further this aim.

Finally, I used further-processed developments of material to act as reflections of previous scenes in order to bring a close to the work. I had found this approach to be effective in instilling a sense of consistency across the duration of the work in the closing section of *Ceramos*, and wanted to see how a similar approach would work with the environmental sound palette of *Salten Drift*. Around the central looping mechanical figure and with a sense of wavering tension provided by a slowly oscillating pitched drone (first noticeable at 10:27), I laid these materials distant and sporadically as if drifting in and out of earshot. Over time I then faded the texture, with each layer diminishing at a different rate in order to gradually expose the different elements. The mechanical looping figure is lost under a texture of swirling noise at 11:40, and in turn, this swirling texture and the other layers of material also give way; the scene as a whole fading slowly from 12:40 as if swallowed by the tide.

Conclusions

Whilst I am not sure I exactly fulfilled my initial intentions toward “doing more with less” and, perhaps inevitably, I ended up being drawn into rhythmic elements more than planned, *Salten Drift* nevertheless evolved into an immersive, ambient experience that explores a dynamic environmental subject, with the support of drones, textural development and slow pacing. I feel the intended sense of atmospheric unease translated particularly well. The first section, with its elongated textural nature, dense with noise and harmonic interference, instills feelings of tension and pressure that remain partially unresolved all the way through to the end of the work. The looping textures in the second half of the work then developed on this and I think created an interesting contrast to the environmental consistency of the first. The recorded impressions of ambience were retained to a certain extent but these sections also became something different; instilled with a sense of repetitive predictability that I feel allows for a less focused listening approach and more freedom for the mind to wander.

Final Thoughts

Reflecting on the portfolio as a whole, and having explored a number of different approaches to ambience across its duration, I believe each work makes a valuable contribution toward the investigation of how techniques and approaches drawn from and inspired by ambient music can be used within acousmatic composition. With environmental sound becoming increasingly central to my compositional practice throughout, the project developed from an initial focus on the utilisation of drone-based textures in acousmatic music, to incorporating elements of rhythm, repetition and harmony from the 'popular ambient' school, and eventually bringing all of these components together in varying combinations with environmental sound. If there is one particular area that I feel would perhaps benefit from further exploration, it would be in terms of encouraging the sense of mindfulness and/or meditateness sought by Brian Eno. While *Zephyr* and *Shadow Fragments* both incorporate elements of these approaches, and arguably contain sections that are conducive of these listening states, they do so within an acousmatic framework that favours more complex structures and concert-appropriate durations. These constraints inescapably work against facilitating such perceptive states across the duration of the work, and I would suggest that longer durations and alternative performance spaces would potentially provide a more suitable medium for future creative research in this area.

Developing from this friction raises another point of discussion around this portfolio that lies in its presentation. Although I have been writing music influenced by ideas of ambient sound and music, the end product is not necessarily intended for the same purpose as Eno's original design. The contents of this portfolio are predominantly acousmatic works that are still, for the most part, designed to be presented in the manner that most often best suits: in concert on a large-scale surround sound diffusion system. I feel that how appropriate this manner of presentation is varies from piece to piece though, and that some of the works in this portfolio would potentially benefit from being presented in more relaxed contexts. I find that this conflict most often arises because, generally speaking, acousmatic music does not lend itself well to imperfect listening environments. The highly dynamic, complex nature and intricate details typical of the genre are easily lost among background noise and external interruptions. At a concert, or some other form of deliberate listening environment, this impact can obviously be mitigated, but I would suggest that the controlling measures necessary for this mitigation also work against some of the fundamental perceptive concepts behind ambient music.

As someone who spends a large amount of time listening to music, for various reasons, in imperfect listening environments, over the duration of this project I have found myself listening less to 'pure' acousmatic/electroacoustic music, and more to varying forms of experimental ambient music. I have found the tendency toward relatively consistent textures, repetition and overall comparative simplicity make it a substantially more flexible genre in this regard, and although attributable in part, at least, to developing personal tastes, I wonder now how much this practical consideration has impacted my creative practice. Over the course of the portfolio I can see a clear overall developmental trajectory of increasing influence from the ambient world.

Furthermore, if the global Covid-19 pandemic has taught us anything, it is that flexibility with regard to work, performance and general social practice is now imperative. We can no longer wholly rely on the ability to gather in public or travel internationally to share music and ideas. Without detracting too much from the acousmatic core of my compositional practice, with the ambient influence of this portfolio I hope, to a certain extent, to have achieved some sort of middleground whereby the works are better suited to imperfect listening environments than they would be otherwise. This effect does vary from piece to piece, and I feel the more 'popular ambient'-leaning sound worlds of *Steel & Ivory* and *Residual Motion* are perhaps the most effective examples of this. Stereophonic versions of the multichannel works, *Zephyr* and *Salten Drift*, were produced with similar ambition, and although some of the spatial detail is inevitably lost in the reduction, I do not feel they suffer too much from the process, particularly when listened to on headphones. In a similar vein, while starting to compose *Shadow Fragments*, I had considered the possibility of it becoming a mixed live and electronics work. Eventually, the structural plan for the piece lent itself more naturally to the fixed medium, but I would still be keen to investigate the possibility of adapting the work for live performance if and when some sense of concert normality resumes.

Since compiling this portfolio I have continued to compose consistently across a number of different projects. Perhaps inevitably, the ambient trend in my creative practice continued to develop and over the course of the first lockdown I wrote and released an album - *Inside Moments* - which is available on my website (chrisbevanmusic.com) and various online platforms alongside the works discussed above. I also have a few other works currently under construction that sit somewhere between ambient and acousmatic, and am looking forward to seeing the evolution of my compositional output over the coming years. As a final comment I would like to once again thank you, reader, and everyone involved in the production of this portfolio thesis, without whom it would not have been possible.

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