Listening For Context – Interpretation, Abstraction & The Real

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Abstract

This paper seeks to explore the proposed notion of 'context-based composition' by examining the nature of 'real-world' context. It does this by studying the way in which listeners interpret sounds, working towards a deeper understanding of what it is that we mean by 'real-world' sound and context-based composition. These discussions are then utilised to explore the concept of what it means to compose context-based works and suggests that new potentials are opened up by a closer examination of the definition of context-based composition, one which liberates itself from a concern over an absolute physical nature of sounds and which embraces the use of both abstract and referential sounds. This journey highlights the importance of memory and experience within processes of interpretation and the creation of context-based compositions, and questions divisions between the virtual and the real.

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1. UNPACKING CONTEXT-BASED COMPOSITION

The concept of 'context-based composition' appears to point to the referential and the 'real-world', where sounds are situated in such a way that they take account of, or respond to, notions or ideas that might be described as 'extra-musical' in the sense that these 'real-world' contexts exist outside of the work itself. The work may or may not use sounds captured from a specific 'real-world context', but some aspect of the 'real-world context' itself will form the primary impetus for the composition:

> A key distinguishing feature of context-based composition appears to be that real-world contexts inform the design and composition of aurally based work at every level, that is, in the materials, their organization, and ultimately the work's placement within cultural contexts. Perhaps most significantly, listeners are encouraged to bring their knowledge of real world contexts into their participation with these works. […] Context-based practice can, among other approaches,

range from sonifications, phonographic uses of field recordings, to site-specific installations, and abstracted soundscape compositions based in real-world or even virtual, imagined spaces. (Truax 2015).

There are many forms of context relevant to works of electroacoustic music. The inspiration of the work might be drawn from a context, the site of the work's audition will provide a physical context and the audience will bring their own knowledge and ideas of context into their interpretation of these works. However, according to (Truax 2015), there is an implication that one absolute overarching context (that of a 'real-world' context) runs through a context-based work, informing its design and providing a framework for the audience's interpretation of it. In order to fully understand the ramifications of the term, 'context-based composition' it is imperative to explore the notion of context itself and its relation to the 'real-world' nature of sounds.

It is first necessary to examine how context is defined, both from the perspective of the composer who uses 'real-world contexts' to inform the development of the work, and from that of the listener who is 'encouraged to bring their knowledge of real word contexts into their participation with the works' (Truax 2015).

2. CONTEXT IN THE WORK

The 'real-world' context that drives context-based composition cannot exist in a solely intramusical form. By definition, context is dependent upon the listener bringing ideas or associations from outside of the work into their interpretations. Therefore, there is no internal contextual nature that a work or 'real-world' sound can possess. The absolute musical notion, that a work exists purely as an invariant object which will be received consistently by all listeners, has long since been dismissed.[1] As Pierre Schaeffer identified, '[A] sound object is the meeting point of an acoustic action and a listening intention' (Chion 2009: 27). The listener will interpret and contextualise the reality of the acoustic action in order to hear the sound. Therefore the sound object itself does not exist outside of the listener (noting that the composer is a very special type of listener, one with heightened senses and a vested interest in the outcome). As Jean-Claude Risset states: 'what counts in music is the auditory experience, not the physical structure' (Risset 1996: 30). Each sound object (and complexes of sound objects which might be described as works) is dependent upon perception and interpretation. Therefore, 'real-world' sounds do not have an invariant nature that is identical to all listeners.

Every sound heard has been mediated and interpreted by the individual listener. Different modes of listening can be consciously shifted, but this changes merely the type of interpretation, there is never an absence of interpretation. As John Young identifies, 'What we perceive as a distinction between "Reality" and "abstraction" relates naturally to ways in which the process of listening can be focused' (Young 1996: 2).

Leaving aside for the moment the way in which different listening modes can be

invoked, let us consider the distinct interpretative perspectives occupied by the composer/creator and the listener when attending to a 'real-world' sound.

Sound example one [SOUND EXAMPLE ONE] is a simple 'real-world' sound recording, yet the possibilities of interpretation are quite divergent between the individual who recorded it (poietic perspective) and audience members listening to it for the first time (esthesic perspective).[2]

The individual who recorded the sound (in this case the author) carries with them a whole complex of associations relating to the recorded sound and its position in the real: where it was recorded, when it was recorded, why it was recorded, what the weather conditions were, what microphone was used, how the sound was recorded, what actions were performed to create the sound, how it has been edited, where it has been used since, etc. Therefore, when the author listens back to it they have access to a whole complex of extra-musical associations that frame their interpretation of the sound within a unique context.

The audience members possess none of these poietic associations and do not receive any of them by simply listening to the sound. Each audience member will listen to the sound and interpret it independently. They may infer some aspects of the context that are similar to 'the real' (where it actually came from). But these inferences come not from the sound itself but from the individual interpreting the sound. They construct them through their own memories and experiences of previous sounds (spectromorphologies) and any knowledge of tools and technologies that they possess. As a result, the individual who recorded the sound and the listener are inherently disposed to interpret the sound in different ways. It is this property that allows Foley artists to perform the 'real-world' diegetic sounds for a given film in a recording studio context and yet have the film audience attribute these sounds to the actions they see on the screen, and how synthesised or modelled sounds are able to imitate the real world. In both cases, the sound is not actually that of X but it can be interpreted to be X by the listener. Without the flexibility of interpretation it would always be possible to directly identify the source of a sound and to distinguish between 'real' and 'synthesised' sounds.

Therefore, we can assert that the listener does not receive any absolute information about the context of the sound recording through the sound itself. They may infer and build up their own imagined context from their past experience, but they do not receive any absolute contextual information from the sound itself. This is important because it highlights a significant characteristic of context. Heard context is non-absolute, it is inferred.

Schaeffer's conception of a distinction between physical signal and perceived object helps us to reaffirm the fact that the process of interpretation is not one of mere transmission but of construction (see also the authors text, Hill 2013: 31). The sound object as defined by Schaeffer is distinct from the physical signal; it is not quantifiable, but a flexible constituent element dependent upon perception.

Therefore, the notion of considering context-based music as developed from a series of discrete and absolute 'real-world' sound objects, or from specific identifiable contexts, is false. All heard sounds are interpreted, a result of the listener's association. Sounds are not concrete entities, but malleable objects of interpretation. Phenomena.

As Schaeffer noted, there is some correlation between interpretations that are made (Chion 2009: 17), but these correlations cannot be a result of any intrinsic property being directly transmitted through the work to each member of the audience:

> It is not a simple 'translation' by the ear of a physical signal, as a whole current of musical thought [...] encouraged people to believe. [...] There are very variable correlations between the physical signal and the perceived sound [...] which demonstrate that sound cannot be reduced to a linear translation of a stimulus. (Chion 2009: 14)

In the next section we will begin to consider how these inferences are made and how contexts are imagined.

3. IMAGINED CONTEXTS

With this shift toward the phenomenological, one could feel exposed to unlimited subjectivity and uncontrolled interpretability on the part of audiences.

But this is clearly not the case. From our experience of conferring with other listeners, we can recognise that we are frequently able to reach a shared understanding of what certain sounds are. For example, [SOUND EXAMPLE TWO] sound example two is a 'real-world' sound that will be familiar to many listeners. Through familiarity we are able to identify and infer the source and the 'real-world' nature of this sound. This familiarity stems from our past experiences of similar spectromorphological objects (also carrying with them additional contextual associations, for example visual or geographic). Any listener who has not had previous experience with this type of sound will be forced to rely on alternative experiences in order to conjure up and make an interpretation of the sound. This is akin to Katharine Norman's concept of reflective listening, which contrasts the distinction between remembered content and imagined content:

> Remembered content is actual in status; it is something that we assume has in fact appeared or occurred on some previous occasion (even if we cannot now recall the precise moment). Imagined content, in contrast, is purely possible in status, it is something that, at most, might have appeared or occurred previously or that might yet do so in the future. (Casey in Norman 1996: 13)

Sounds previously experienced will form memories of sound, which can be recalled when the listener seeks to interpret similar subsequent events. Unfamiliar sounds will invoke a process of imagination in which the listener will seek to build an interpretation of the sound. The process of imagination will draw on the memory resources that are available in order to make an interpretation. This may result in either the inference of an imagined source, a semantic interpretation, or a more

abstract interpretation with attention directed to the acoustic qualities of the sound. As David Hume wrote:

> What never was seen, or heard of, may yet be conceived; nor is any thing beyond the power of thought, except what implies an absolute contradiction.

> But though our thought seems to possess this unbounded liberty, we shall find, upon a nearer examination, that it is really confined within very narrow limits, and that all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience. (Hume 1748)

Trevor Wishart's archetypal forms (1985) and Denis Smalley's indicative fields (1992) expand this notion, providing frameworks for understanding how various acoustic properties might convey common interpretations through the linking of sounding materials to wider aspects of human experience (Young 1996: 75). But each member of the audience will approach the work and interpret it by utilising their own tools of perception and the context provided by their own experiences. Research into audience interpretation of electroacoustic music (e.g. Delalande 1998; Weale 2005; Landy 2006; Hill 2013) has empirically identified such trends and commonalities within audience interpretations of works. Analysis of listener responses to works identified that individual experience and implicit training though lived experience were the largest factors in influencing interpretation (Hill 2013). These findings can be demonstrated through the following example in which a number of hypothetical listeners possess different types of experience and as a result are restricted / directed in the interpretations that they are able to make.

[SOUND EXAMPLE THREE]. Unlike the previous examples, sound example three might not immediately be considered a natural 'real-world' sound, though of course it does emanate from an object that physically exists. In fact, the reality of the object is defined by the listener and will be different for different types of listener. This can be observed by considering three listeners: 1. A 'specialist' familiar with the history of electroacoustic music and of electronic instruments; 2. A listener with experience of mid 20th century science fiction films; 3. An individual with no experience of electroacoustic music or mid 20th century science fiction films.

Listener one, the 'specialist', may choose to listen to the sound in an abstract way but also has access to identify the 'real-world' source of the sound. Their training and familiarity with electronic music and instruments means that they are the only one of the three listeners with the ability to identify the original source cause of the sound. Listener one is able to recognise the Theremin as the 'real-world' source of the sound. In contrast, listener two, with experience of mid 20th century science fiction films, has no knowledge of the instrument which creates the sound but is familiar with this type of sound through their experience of cinema. Therefore they will draw on their personal experiences to interpret sound example three within this context, linking it to the film genre (or individual films) with which they are familiar. For listener two, the

'real-world' source of this sound is mid 20th century science fiction film. Finally, listener three, with no knowledge of electronic instruments or science fiction films, must apply their imagination to make an interpretation of the sound. Having no prior familiarity with this sound, either its instrumental source or its previous use in the context of mid 20th century science fiction film, listener three must rely on alternative experiences from their life in order to make sense of the sound. They might do this by drawing upon archetypal forms or indicative fields to either infer a possible source for the sound (causal listening), or they may recognise various cultural tropes of associations relating to the original sound and use this to infer meanings (semantic listening), or by focussing upon the internal properties of the sound itself (reduced listening). Whatever result they end with, the listener will have utilised experiences and associations from the world to get there. Their interpretation will be just as embedded in their real world as those of listener one and two were in each of theirs.[3]

Each of the individuals above are abstracting characteristics from the sound and comparing them to their own experience of the real world. Each of the listeners has a different experience of the real world and correspondingly their interpretations of the sound are each different. Therefore when we talk of 'real-world' sounds what we are actually describing are sounds which match up most closely with our own prior experience of the world, our own unique reality.

This section has examined plausible responses to two different sound examples and sought to demonstrate how individual experience can result in divergent interpretations. It has also begun to explore how indirectly related experiences of the world might be drawn upon to furnish interpretation. This ability, to utilise unrelated experiences in order to interpret new phenomena, is a fundamental aspect of our functioning brain, which also underpins our abilities to interpret and negotiate abstraction. These abilities are further explored in the following sections.

4. NATURAL & CULTURAL CONTEXTS

Schaeffer identified musical perception as built upon both natural and cultural norms: natural in the sense that it is 'common to all people, arising from universal psychological and physiological factors', and cultural as 'what is peculiar to each culture, in terms of particular codes and conditionings' (Chion 2009: 34). This statement is supported by recent research into cross-cultural studies which highlight statistical universals in music across cultures (Trehub, Becker and Morley 2015; Stevens 2012) and long established ideas in cognitive psychology which highlight the similarities in audio perception across cultures and between individuals (McAdams 1989; Caterette and Kendall 1999).

Context-based composition utilises these commonalities to communicate. It relies upon an audience's common understanding of the norms and conventions of our physical world, culture and society in order to understand the works. For example, *Prochaine Station* by Christian Calon and Claude Schryer[4] relies to some extent upon the audience's ability to recognise that the sounds were recorded on a metro train and to connect this with their own lived experience of travelling upon a metro train.[5]

It is impossible to escape our own processes of interpretation. As we hear, we make interpretations. This immediacy can deafen us to the realities of the processes at work. The nature of schematic cultural and experiential associations, which engage similar archetypal responses in audience members, have sometimes confused researchers and theorists allowing them to imagine that interpretation consists of decoding implicit knowledge encoded within a physical signal. The sound examples cited here have demonstrated that such implicit knowledge does not exist. Instead, archetypal responses are argued to be the result of common physiological, cultural and social perspectives, built up through the common experience of individuals. All experience of culture, training and knowledge, will modulate the subject's future interpretations, contributing to the individual's unique consciousness (Hill 2013: 42).

This means that there is no singular and universal impression of the 'real-world'. What 'real-world' means to each individual may be quite different, as a result of physiology, culture and experiences. The listener does not perceive *the* object, but *an* object. Therefore, when listening to 'real-world' sounds an audience member does not hear one specific context, but utilises memories and experiences of similar events from a range of different contexts. Thus, one doesn't have to have travelled on the metro line in Montreal in order to understand the composition *Prochaine Station,* but can draw upon any experiences of travelling the metro (perhaps in Paris, Berlin or London) in order to construct and interpret the sonic signals which are projected.

Therefore, when we talk of recognisable sounds, what is important is not the context itself but the experience of that context.

For example, it is not about *a* specific metro line or railway, but about the *experience of a* metro line or railway. A collection of remembered experiences which we each build up through our experience of the world and which exist uniquely for each of us within our consciousness. Norman suggests that it is in fact this property that makes works so compelling to the audience:

> The essence of a real-world approach to composition lies in the invitation to participate subjectively in the creation and transmission of transfigured meanings, to create through the confusion of our individual listening montage. Real-world music prompts a creative state that, while also 'destructing' our normal perception of reality, encourages us to discover it, in retrospect, anew. (Norman 1996: 37)

Within this process the most significant context is that of the individual's consciousness, which is brought to bear upon interpreting the work.

4.1. Consciousness

Both 'real-world' and abstract materials are interpreted using the same experience schemata, one that each individual derives from the world around them. Even the most abstract sounds are interpreted through cognitive mechanisms derived from our understanding of the world. Abstract materials are simply those for which no inferred source is apparent.

The framework of consciousness and cognition is built upon schemata, which are networks of experience. They are malleable frameworks within which knowledge about contiguous sensory data is stored in complexes of association (Hill 2013: 40). Contemporary neuroscience research refers to a notion of an internal model, which is underpinned by schemata, and which is constantly updated by new data reaching it (Eagleman 2011: 48). Perceived objects are tested against this internal model (a schematic framework) and the outcome of this test is stored within the schemata itself so that it constantly evolves and develops (ibid.).

Therefore, we might say that all perceptions of the world are mimetic – based upon a likeness of the world. Each individual has a likeness of the world constructed in their consciousness and this is unique for each individual, constructed as a result of their lived experience. 'Real-world' sounds are identified as such because they are most like our past experience of the 'real-world'. But, perhaps counter-intuitively, our interpretation of abstract sounds is also driven by our experience of the real. If our consciousness is wrapped up in our experience of the world, then any interpretations that we make are also embedded in this world. Thus, even the most abstract work exists as a series of interpretations based upon past experience of a range of different contexts in the real world.

It is this feature that affords the continuum of sonic experiences from mimetic, through abstracted to abstract:

> 'Reality' and 'abstraction' are notional absolutes, which may appear to the listener to be in constant flux and with distinctions is not always clear-cut […] the range of ambiguous states between these two polarities form a continuum, within which there are not necessarily fixed or absolute increments. (Young 1996: 83-4)

These absolutes and the increments are impossible to define because they will be unique for each individual, and they are not fixed, they will modulate over time as that individual's experience builds. Our consciousness is constantly updating, reinforcing or reprogramming our schematic networks of past experiences. When we experience a specific sound, such as sound example two, we invoke our past experiences and associations related to that sound and in so doing the remembered sound is altered. The memory is now re-contextualized, situated in relation to the sound just perceived. To use a complementary sensory experience, each sip of beer is inextricably linked with memories of past sips and of the expectation of future sips to come. Our reflections on its taste are derived from our past experiences of tasting. If one has a bad experience with a specific taste then all other memories and associations with the experience of the beer's taste can also be affected. The same is true for sound. Memories are fluid.

As a result, the 'actual' status of remembered content, suggested by Norman, is brought into question. Perhaps rather than that actuality being fixed and embedded, we can rather imagine it as being that which is currently and discretely encoded within schematic associations. It is a record of experiences that occurred consistently

and thus have been reinforced into schematic structures, the reading of which creates archetypal expectations of the world. Imagined content is less discretely encoded, being instead formed from a complex of compatible schematic associations, constructed from our understanding of possible outcomes.

Therefore, consciousness is comprised of abstracting processes, and it is the similarities between the formal properties of these abstractions that are the basis for interpretation. We constantly float between the notional absolutes of 'reality' and 'abstraction' as we compare incoming sensory information against our past experiences to build interpretations. Thus, even abstract sounds are dependent upon schematic context for their interpretation.

5. INTERPRETING ABSTRACT SOUNDS

As Lawrence Kramer argues, 'if music makes us feel, it cannot be non-referential. The feelings it stirs arise from and refer to the vicissitudes of living' (Kramer 2005: x). This notion is carried forwards by John Shepherd who remarks that, 'timbre speaks to the nexus of experience that ultimately constitutes us all as individuals. The texture, the grain, the tactile quality of sound brings the world into us and reminds us of the social relatedness of humanity' (Shepherd in Truax 1996). The sounds we hear tell us about our world and help to define us within that world, 'the sonorous [is] tendentially methexic (that is, having to do with participation, sharing, or contagion)' (Nancy 2007:10).

Denis Smalley states: 'Musical materials and structures find resemblances and echoes in the non-musical world' (Smalley 1986), but, following the current argument, it is rather more likely that music itself is actually an echo of these 'resemblances'. It is elements from our experience of the world that drive our music making (as well its interpretation).

As Susan Langer identifies:

> [T]here are aspects of the so-called 'inner life' – physical or mental – which have formal properties similar to those of music – patterns of motion and rest, of tension and release, of agreement and disagreement, preparation, fulfillment, excitation sudden change etc. So the first requirement for a certain connotative relationship between music and subjective experience, a certain similarity of logical form, is certainly satisfied. (Langer 1957: 228)

These resemblances demonstrate a merging of the 'real-world' and the abstract. All sounds are interpreted within a mimetic framework (based upon similarity with past experience of the world), Therefore there is no absolute difference between 'real-world' and abstract sounds.

It is the fact that we imagine a distinction between the concrete and the abstract which hides the true nature of listening from us, as Jean Baudrillard states: 'The imaginary conceals that reality no more exists outside than inside the limits of the artificial' (Baudrillard 1981: 14). The real and the mimetic dissolve into one another, both within the work and beyond it into the everyday. Norman invokes André Bazin who

argues, 'recorded material and reality are, in effect – and affect – identical' (Bazin in Norman 1996: 41). But Norman notes that while the experience of materials might be identical, it is the montage and combination of these materials which moves 'real-world' composition beyond a direct re-presentation of reality into an experience within which our experience with the world is directly challenged or engaged:

> Part of the success of real-world music lies in its ability to shake us out of our established listening processes; subversion of expectations through real-world music is what makes them compelling. (Norman 1996: 36).

The work is a map which engenders the territories of our experience, but can also draw attention to the subjectivity of our experience and remind us how we explore the desert of the real.[6]

6. COMPOSITION AS CONSTRUCTED CONTEXT

Up until this point we have mostly considered individual sounds within the context of the listener's consciousness. While we have examined some correlations and structuring within subjective interpretation, we have not yet examined the work.

As Maurice Merleau-Ponty describes, 'the perceptual "something" is always in the middle of something else, it always forms part of a field' (Merleau-Ponty 1962: 4). This applies to individual sounds within the context of a work and to whole works themselves (see (Hill forthcoming) for a discussion of the role that presentation and curation might play in relation to the interpretation of works).

As Schaeffer identifies, there is a form of fractal relationship between objects and structures:

- Every object is perceived as an object only in a context, a structure, which includes it.
- Every structure is perceived only as a structure of objects which compose it.
- Every object of perception is at the same time an OBJECT in so far as it is perceived as a unit locatable in a context, a STRUCTURE in so far as it is itself composed of several objects.   (Chion 2009: 58)

The interpretation of an object will be influenced by the structure within which it exists, by its relationship to preceding, contemporary and subsequent objects. Merleau-Ponty talks of a field of context that will determine the interpretation. This is defined not only as the relationship between events inside the work, the sound object in question and the objects surrounding it (its situation), but also its relationship to the subject's past experience.

Having already explored the notion of past experience and the context of the consciousness we can focus our attention specifically towards the context that is created by the structuring of materials within the work.

The combination of materials within a work, at the level of the physical signal, will

operate to establish a formal context that the audience can then use as material for interpretation. The composer acts upon the physical signal of the work, moulding and forming it based upon their own interpretation. As they do so they take advantage of their own past experiences and consciousness to drive the compositional processes. This might take advantage of either abstract or specific characteristics, or a combination of the two.

6.1. *Abstracted Journeys*

The author's composition *Abstracted Journeys* (2013), commissioned as part of the Compose with Sounds and EARS2 project, was devised with the intention of creating a work about sonic montage and basic sound transformations that would help introduce young people to electroacoustic music. It was developed from materials recorded from contemporary urban contexts, which were imagined to be familiar to most of the intended listeners. The composition begins with the slow approach of an oncoming metro train, relatively unprocessed, which introduces the notion that the work will present recognisable sound materials. Over this a number of subtle gestural interventions foreshadow sonic material to appear later in the piece, thereby subtly introducing the notion of editing and montage to the listener, whilst also laying down markers for future materials that will reappear later within the piece. When the metro train reaches its peak, elements from the soundscape are isolated and extended in order to highlight and demonstrate the notion of transformed sound. The piece utilises simple montage and basic transformations in order to extend concrete sound recordings and in some cases subvert listener expectations for playful effect.[7]

Abstracted Journeys is a composition that makes use of concrete sounds, but their concrete nature is non-specific. Absolute 'real-world' context of these sounds is not vital to the understanding of the work, but their general nature is – they are assumed to be familiar to the listener. Further, through its formal structures the work seeks to build up associations between its sonic materials and their transformation, demonstrating clearly the ways in which sounds can be manipulated and transformed. The way in which the physical signal is put together helps the work to self-contextualise, to provide an explanation for itself through making its formal structures clear to the listener.[8]

These self-contextualising properties of the work provide a scaffolding for the audience to make interpretations of the work, taking advantage of abstracted ordering principles such as contiguity, association and expectation.

6.2. *Stille Lyd - Høvringen*

Similar processes can take palace within works that draw upon a mixture of abstract and referential materials. The author's composition *Stille Lyd – Høvringen* is one such example because, though context-based, it relies more upon the abstract than the concrete. The work seeks to evoke the experience of being in a specific context, upon a Norwegian mountain in winter, and it does so utilising a combination of recorded sounds and materials abstracted from these recorded sounds. The work itself seeks to

provide a mediated experience of this place.

This tension between the real and the abstract forms a key component of the work, transporting the listener between abstract soundscapes and 'real-world' vignettes. The vignettes provide gateways to different aspects of the experience, but it is the abstract and transformed sounds that evoke and provide listeners with the greatest opportunity of projecting themselves into the interpretation of the work.

The piece opens with a sparse, granular texture, which ebbs and flows building and evolving. The grains themselves are relatively static and contained, while the granular clouds shift spatially and evolve. Later, pitched elements appear (1:27) and initially these are individual pitched gestures but soon a stable inharmonic pitched sound emerges (1:42). The pointillism and movement of the grains is contrasted against the steady nature of the pitched materials – indeed the pitched materials provide a fixed point of reference around which the grains can be perceived to move. The listener is enveloped in this sound world, which ebbs and flows with apparent interaction and triggering between the materials. By beginning the work in the abstract field, the listener is actively placed in a situation where they must apply imagination, to seek to make sense of the sound materials. The largely static and still nature provides a relatively safe and welcoming environment to encourage the listener's sonic exploration.

The first of the more recognisable sounds emerge when a low-pitched sound triggers an unstable texture (3:25). It builds in a crescendo as a filter is slowly opened, gradually revealing an increasing number of whistling and roaring wind textures. Young describes this technique as mediation, whereby the apparent order of surrogacy is modified to shift the mode of listening (Young 1996: 84). The end point is a chaotic and unstable soundscape derived from a montage of different soundscape recordings. The materials of this section have the potential to invoke both associations with direct real world experience as well as tropes and cultural associations from experiences of film and media, therefore the potential interpretability might be described as quite open and accessible. The editing process of montage also encourages the listener to engage imaginatively, even while the materials might appear to be more mimetic. As Norman states, 'we can […] emerge from our listening montage feeling that we had a say in creating the answers, even if the composer created the clues that directed our perception' (Norman 1996: 37). Thus, the work consistently invites in the listener to complete it when using both abstract or mimetic materials.

The formal structures of the work provide contexts that afford listeners the opportunity to engage in imaginative and attentive listening modes. The opening section encourages imagination and attentive listening; therefore this section may be interpreted in many ways, but will encourage a more active participation with the work than the raw reproduction of a field recording.

When less processed recorded sounds are presented (such as at 5:00) these materials serve to provide a pause in the work, a break for the listener from their efforts to

imagine and interpret abstract sounds. The mode of heightened listening from the previous section might still be applied to this mimetic sound, but it demands far less of the listener to reach an interpretation. This water recording might be described as an example of an archetypal mimetic sound, likely being familiar to all. Its archetypal familiarity means there are many schematic networks associated with it, thus interpretation demands less complex construction or imagination. Within the context of the work, its mimetic nature also serves as a foil to the abstract and the transformed, providing a point of reference against which reality might be assessed. Throughout the work, the montages of 'real-world' sounds act as snapshots anchoring the abstract passages, providing both a frame of reference against which the more abstract elements can be interpreted, as well as a sense of embodiment of the tactile physicality of the 'real' space. While in tandem the concrete vignettes are contextualised by the abstract, which moves beyond the immediacy and specificity of the concrete, towards more general experiences, trends and patterns that underlie and exist beneath all of our lived experience.

This synergy drives the work beyond being a work about a place, and instead it becomes an *experience* of a place. This work does not operate as an abstraction. It provides a simulation of the experience of the place:

> We are in a logic of simulation, which no longer has anything to do with a logic of facts and an order of reason. Simulation is characterised by a *procession of the model*, of all the models based upon the merest fact – the models come first, their circulation, orbital [...], constitutes the genuine magnetic field of the event. (Baudrillard 1981: 16)

Models, schemata, complexes of association take over in constructing the simulation of this space. The concrete sounds provide the specific and the transformed sounds provide the abstract. These combined simulate an experience of the real. As Risset states, 'playing with perception, illusions, simulacra is a way to deepen our relation to reality, to explore the workings of our senses, our only windows to the world' (Risset 1996: 45).

The sound recordings are documents of the location (context), but ironically they cannot completely evoke the experience of being in that location, because their absolute concrete nature is a document of fact and not of experience. It is the transformed and abstracted sounds within the work that facilitate the schematic scaffolding, providing the opportunity to *evoke* experiences of context in the listener. The plastic nature of these abstract sound materials allows the listener to connect with them directly via archetypal forms and abstracted common experience. In this way they are also more open to interpretation, closer to aspects of the schemata (models), which a wider range of listeners will possess.

The compositional strategies outlined here draw upon the nature of experience and interpretation in different ways, with combinations of abstract and concrete in which either the concrete (*Abstracted Journeys*) or the abstract (*Stille Lyd – Høvringen*) dominates. In unpacking these works and the ways in which audiences might be able

to approach them, we can observe how different emphases towards forms of interpretation are encouraged by different compositional philosophies (strategies). The composer cannot be assured of the exact interpretation that an audience member will make of their work, but they do have the opportunity to scaffold and encourage readings of a work through the way in which they structure the physical signal of the work. As Young highlights, 'the interplay of Reality, surReality and abstraction are meaningful to us because they are able to mirror aspects of consciousness itself' (Young 1996: 92). The composer has the opportunity to provide the listener with an experience of experience, creating works that explore their relationship to sounds, to context through abstraction, montage and metaphor.

7. CONCLUSION

Commonalities in our conceptions of the mimetic are a result of commonalities in our experience of the world and not a result of intrinsic properties in the physical realm. Thus, when we talk about a work being context-based, it refers not to the physical properties of a context but to the perceived impression of a context. The 'real-world' nature of sound is constructed entirely within the mind of the listener.

So when we seek for the 'context' of context-based composition, we discover that it does not take the form of some absolute external reality. The true context is not that of the 'real-world' but of the listener's consciousness. Context-based composition is situated not in the concrete 'real-world' but in a phenomenological realm in which reality is revealed to be abstract.

While this might initially seem to undermine the whole affair of composition, this re-imagining of context-based composition actually liberates the composer. The nature of context is expanded – limited only by our experience as humans – thus providing far greater opportunities to make creative decisions. The listener too is liberated from realism and through listening to electroacoustic works is introduced to the fundamental reality of our experience.

Each individual possesses their own reality, built from experience. Experience engenders the real, which can take many forms. Context exists within the listener and is formed out of their relation to the world.

Thus, there is no absolute distinction between a real world and the abstract, between soundscape and acousmatic. The nature of sound is more malleable than concrete, it is plastic.

REFERENCES

Baudrillard, J. 1981. *Simulacra and Simulation*. S.F. Glaser (trans.) Ann Arbor, MI: University of Michigan Press.

Calon, C. and Schryer, C. 1996. *Prochaine Station* (1990). On *Électro Clips*. Montreal: Empreintes Digitales, IMED-9604-CD.

Caterette, E. C. and Kendall, R. A. 1999. Comparative Music Perception and Cognition. In D. Deutsch (ed.). *The Psychology Of Music*. San Diego: Academic Press, 725-91.

Chion, M. 2009. *Guide To Sound Objects: Pierre Schaeffer And Musical Research*. J. Dack and C. North (trans.) [Www] Available Online: https://monoskop.org/images/0/01/Chion_Michel_Guide_To_Sound_Objects_Pierre_Schaeffer_and_Musical_Research.pdf [Accessed: 25/9/16]

Delalande, F. 1998. Music Analysis and Reception Behaviours: *Sommeil* by Pierre Henry. *Journal Of New Music Research* 27(1-2): 13-66.

Eagleman, D. 2011. *Incognito: Secret Lives of the Brain*. New York: Pantheon Books.

Ears 2: The Pedagogical Electroacoustic Resource Site. Forthcoming. http://Ears2.dmu.ac.uk

Hill, A. 2013. *Interpreting Electroacoustic Audio-Visual Music*. Unpublished thesis. De Montfort University, Leicester. Available Online: https://www.dora.dmu.ac.uk/handle/2086/9898 [Accessed: 25/9/16]

Hill, A. Forthcoming. Theatres of Sounds: The Role of Context in the Presentation of Electroacoustic Music. In *Proceedings Of Insonic 2015*, ZKM Karlsruhe, November 2015.

Hill, A. Unpublished. *Abstracted Journeys* 2013. Available Online: Https://Soundcloud.Com/Andrewhill86/Abstracted-Journeys [Accessed: 26/8/16]

Hill, A. Unpublished. *Stille Lyd – Høvringen* 2014. Available Online: Https://Soundcloud.Com/Andrewhill86/Stille-Lyd-Part-Ii-H-Vringen [Accessed: 26/8/16]

Hume, D. 1748. *An Enquiry Concerning Human Understanding*, 1st edition. London: A. Millar. Available online: http://www.davidhume.org/texts/ehu.html [Accessed: 12/5/16]

Kramer, L. 2005. *Critical Musicology and the Responsibility of Response*. Aldershot, UK: Ashgate.

Landy, L. 2006. The Intention/Reception Project. In M. Simoni (ed.) *Analytical Methods of Electroacoustic Music*. New York: Routledge, 29-53.

Langer, S. K. 1957. *Philosophy In A New Key: A Study in the Symbolism of Reason, Rite, and Art*, 3rd edition. Cambridge, MA: Harvard University Press.

McAdams, S. 1989. Psychological Constraints on Form-Bearing Dimensions in Music. *Contemporary Music Review* 4: 181-98.

Merleau-Ponty, M. 1962. *Phenomenology Of Perception,* C. Smith (trans.). London: Routledge & Kegan Paul.

Nancy, J.-L. 2007. *Listening,* C. Mandell (trans.). New York: Fordham University Press.

Norman, K. 1996. A Poetry of Reality: Composing with Recorded Sound. *Contemporary Music Review* 15(1-2): 1-57.

Rissett, J. C. 1996. Real-World Sounds and Simulacra in my Computer Music. *Contemporary Music Review* 15(1-2): 29-47.

Smalley, D. 1986. Spectro-morphology and Structuring Processes. In S. Emmerson (ed.) *The Language Of Electroacoustic Music.* Basingstoke: Macmillan Press, 61-93.

Smalley, A. 1992. The Listening Imagination: Listening In The Electroacoustic Era. In J. Payntcr, T. Howell, R. Orton and P. Seymour (eds.). *Companion To Contemporary Musical Thought, Vol. 1.* London/New York: Routledge, 514- 51.

Stevens, C. 2012. Music Perception and Cognition: A Review of Recent Cross-Cultural Research. *Topics In Cognitive Science* 4: 653-67.

Trehub, S. E., Becker, J. and Morley, I. 2015. Cross-Cultural Perspectives on Music and Musicality. *Philosophical Transactions Royal Society* B, 370-9.

Truax, B. 1996. Soundscape, Acoustic Communication and Environmental Sound Composition. *Contemporary Music Review* 15(1-2): 49-65.

Truax, B. 2015. Soundscape Composition As Context-Based Creation. Os 22 1. Call For Works – Please Advise, Presumably This Will Be In The Editorial For This Issue.

Weale, R. 2005. *The Intention/Reception Project*. Unpublished thesis. De Montfort University, Leicester.

Wishart, T. 1985. *On Sonic Art*. York: Imagineering Press.

Wollheim, R. 1980. *Art and its Objects*. 2nd edition. Cambridge: Cambridge University Press.

Young, J. 1996. Imagining The Source: The Interplay of Realism and Abstraction In Electroacoustic Music. *Contemporary Music Review* 15(1-2): 73-93.

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[1] Indeed the editor of this volume identifies that the work exists between the actions of the composer in making the work and the actions of the listener in interpreting the work.

[2] See Wollheim 1980 for a full exegesis

[3] Of course the proliferation of cultural tropes and references through film, television and popular media mean that contemporary listeners falling into category three will most likely associate sound three with abstract concepts such as the "alien" or the "psychological" rather than consider the acoustic properties of the sound. The success of these sounds in early science fiction film was due to their abstract nature and unfamiliar tonality, this evolved over time whereby the salient characteristics of the sound we propagated onwards through many subsequent films and television programmes, eventually becoming archetypal, indicative of a particular genre or mood.

[4] This work was used within the testing of the Intention/Reception project and thus comes with a series of empirical data (Landy 2006).

[5] The title, and other accompanying dramaturgic elements, are also significant factors in contextualizing the work but cannot be considered within the scope of this article.

[6] See (Baudrillard 1981: 1).

[7] Later in the work an aeroplane is abruptly cut off by a slamming gate subverting the expectations of causality and a natural experience of the world, highlighting the intervention of the composer within the composition process. There is also another section in the piece that operates on a more complex level, making reference to Schaeffer's *Étude aux chemins de fer* (a work on the EARS2 curriculum for our young listeners). This section of the work is able to operate without knowledge of this extra-musical association, but provides added value and through the work itself draws a link to the curriculum which might help the learners to make more complex associations and aid their learning.

[8] This is not unique. Many electroacoustic works operate in this way to establish a context for their own subsequent development and elaboration.