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Sonic environmental aesthetics and landscape research

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ABSTRACT

The environmental aesthetics literature has primarily focused on the aesthetic qualities and values of landscapes. Within this scholarship, there has been a modest but steady advancement towards explicitly attending to the aesthetic experience of landscape sounds. In this paper, I review the theoretical and applied sonic aesthetics literature pertinent to landscape research, and identify some existing weaknesses. In particular, I demonstrate that there is an ongoing tendency to limit discussions to what is sonically pleasing or displeasing within a given landscape, which, I argue, provides a limited point of entry through which to consider the full scope of landscape sounds. I then turn to offer some ways to address these weaknesses—notably through what I term the development of a ‘sensitive ear’, and through field recording strategies—in the hope that this will allow scholars to better enfold sonic environmental aesthetics within future theoretical and applied landscape research.

KEYWORDS

Landscape aesthetics;
soundscapes; environmental
values; field recording; sonic
aesthetics

1. Introduction

Environmental aesthetics ‘considers philosophical issues concerning the aesthetic appreciation of the world at large’, and so ‘the field extends beyond the confines of the artworld and our aesthetic appreciation of works of art’ (Carlson & Berleant, 2004, p. 11). While chiefly understood as a subdiscipline of environmental philosophy that emerged in the second half of the twentieth century (Brady, 2003, p. 1), environmental aesthetics research is undertaken under the auspices of various disciplines. So, in addition to theoretical work, there is a strong empirical and applied branch, and there are now numerous attempts to link theoretical and applied work in areas ranging from environmental conservation to landscape planning (see for example Carlson & Lintott, 2008; Porteous, 1996). Across the field, ‘aesthetics’ is broadly understood as pertaining to what may be aesthetically valued (for instance what is ‘beautiful’) or disvalued (for instance what is ‘ugly’ (see Brady, 2011)) in a given environment, as well as other types of aesthetic categories such as the picturesque and the sublime.

The environmental aesthetics literature has given primacy to the aesthetics of landscapes (see among many examples Berleant, 1997; Bourassa, 1991; Gobster, 1999; Parsons, 2008). Within this literature, there have been attempts to demonstrate human psychological reasons as to why certain landscape forms are aesthetically preferred over others (see for example the collection of essays edited by Nasar, 1988). There have also been various examinations of the implications of aesthetic valuations and preferences for the conservation, design and management of landscapes. Here, a normative strand has emerged, which argues that the act of aesthetically valuing landscapes is important for the development of

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a robust conservation ethic (Berleant, 1997, pp. 36–39; Carlson, 2000), or land ethic (Callicott, 2008; Leopold, 1966). However, it has also been noted that environmental aesthetic values can also conflict with ecological conservation and sustainability goals (Lintott, 2008; Parsons, 1995).

Attendance to the human sensory perception and aesthetic experience of landscape sounds has steadily advanced (however modestly) over the last 20 years or so. In this paper, I reflect on this body of work, and offer some ways in which it could be further developed. I firstly undertake a critical review of this literature, covering both theoretical scholarship chiefly produced by environmental philosophers, and applied work stemming from environmental psychology, urban planning and environmental management researchers. While the review is non-exhaustive, I here examine how sonic aesthetic qualities, experiences and values of landscapes have been broadly conceptualised, and, where relevant, the work that this research has been put to, particularly in regard to the production of landscape policy. As I do so, I identify some existing weaknesses, before turning to offer some ways in which these may be addressed, in the hope that this will allow scholars to better enfold sonic environmental aesthetics within future theoretical and applied landscape research.

2. Sonic aesthetic theory in philosophical landscape research

The relationship between sonic aesthetics and landscape has been investigated primarily through a concept common to most strands of sonic research—that of the ‘soundscape’. ‘Soundscape’ was first defined by R Murray Schafer as ‘... any acoustic field of study. We may speak of a musical composition as a soundscape, or a radio programme as a soundscape or an acoustic environment as a soundscape’ (Schafer, 1994, p. 7). It is important to note that Schafer deployed the word ‘soundscape’ in a way that is highly normative: Schafer distinguished the ‘hi-fi’ from the ‘lo-fi’ soundscape, where the former ‘is one in which discrete sounds can be heard clearly because of the low ambient noise level’ (p. 43), and the latter is one where ‘there is so much acoustic information that little of it can emerge with clarity’ (p. 71). Schafer attributes the hi-fi soundscape to ‘the country’ and the lo-fi soundscape to post-Industrial Revolution urban settlements, leading Ari Kelman to argue that ‘his [Schafer’s] notion of “the soundscape” ... is lined with ideological and ecological messages about which sounds “matter” and which do not’ (Kelman, 2010, p. 214).

What is important to note here is not that Schafer expresses a sonic preference, but that this preference explicitly rejects the possibility of positive aesthetic experiences in contemporary urbanised landscapes—a judgement that pervades environmental aesthetics (Berleant, 2007). There has since been a shift from a prescriptive to a descriptive formulation of the term; it now usually means the totality of a particular sound environment as perceived by a human listener (Gallagher and Prior, 2014), making the soundscape an apparently useful term for landscape research—so much so that ‘soundscape’ is often used as a sonic equivalent to the visual ‘landscape’ (see Porteous & Mastin, 1985; Rodaway, 1994, p. 86).

If reference is made to sounds or soundscapes within the philosophical environmental aesthetics literature, this is normally only in passing, or to support a visual aesthetic argument. For example, Bourassa (1991, pp. 8–9) notes that landscape sounds are relevant to landscape perception and aesthetic experience, but does not develop this idea any further, while Budd (2002, pp. 10–11, 51–52) uses the example of birdsong during a thought experiment about what constitutes the ‘natural’ (read non-human) in aesthetic experience. Brady (2003) recognises that it is through attentive listening that we can focus our ears on the totality of a soundscape for aesthetic appreciation, and she also notes how sound is at least marginally entangled within historical accounts of the sublime by Alison, Burke, Schopenhauer and Muir (Brady, 2013). Finally, Sepänmaa (2007), in his reflections on the multi-sensory qualities of city environments, briefly states that the sounds of water are an important component of landscape identity, and that sounds characteristic of cities should be afforded protection (Sepänmaa, 2007, p. 94), though neither point is developed.

Aside from these, there are a few instances where the sonic aesthetics of landscapes have been explored more thoroughly. Berleant (2007) states that various sounds within cities—particularly mechanised sounds‘... contribute to a three-dimensional auditory texture that is as thick as it is broad’ (Berleant, 2007, p. 86), and are thus important to urban landscape experiences. However, Berleant

tends toward accounting for urban sounds in a way that is reminiscent of Schafer, conceptualising the totality of ‘background drone[s] of traffic’, suburban lawnmowers and the hum of air conditioners, as ‘inescapable noise’, which is a ‘kind of environmental oppression’ (p. 83). In a more forthright manner he argues that, while there are ‘natural’ sounds to be heard within urban landscapes, these ‘are generally overpowered by mechanical sounds’ and that mechanisation within cities ‘fill[s] the air with noise and exhaust fumes that are insistent and inescapable, polluting two senses at once’ (p. 89).

Jay Douglas Porteous, who has done more than most to extend the scope of environmental aesthetics beyond lines of sight (Porteous, 1982, 1985, 1996), also considers sound to be an important component of urban landscape experience, in tandem with other senses: ‘... a walk through a landscape garden or a crowded city is a total sensory experience—visual, auditory, olfactory, tactile, kinaesthetic; and in some cities one can taste the air’ (Porteous, 1982, p. 84). Porteous also reflects on the ‘all-surrounding’ qualities of sound in landscapes, stating that sounds have a ubiquitous quality because humans do not possess ‘earlids’ (Porteous, 1996, p. 33). He then draws a similar conclusion to Berleant, arguing that ‘traffic roar increasingly drowns the sounds of nature as well as public music and informational sounds such as foghorns and even sirens’ (Porteous, 1996, p. 35).

John Fisher (1998) has provided the most sustained theoretical exploration of the sonic aesthetic qualities of landscapes. Here, he focuses primarily on the extent to which the sounds of (non-human) nature have been routinely ignored within landscape aesthetics research, through examining what he considers to be ‘the most significant impediments to including sound in accounts of the aesthetics of nature’ (Fisher, 1998, p. 167). These impediments include the apparently habitual suppression or inattention to sounds, which is ‘largely learned behaviour’ (p. 169), and a Western cultural emphasis on the value of musical over non-musical sounds.

The ‘most significant’ reason provided by Fisher concerns the apparent subjectivity of experiencing and judging natural sounds. Fisher cites Allen Carlson’s ‘natural environmental model’ approach to environmental aesthetic appreciation, in which Carlson argues that if scientific categories of the natural world are used when we make environmental aesthetic judgments, then objectively correct or incorrect judgments will follow. Fisher then details how the sounds of nature cannot be appreciated objectively, principally by demonstrating that as natural sounds cannot be ‘framed’ (‘which sounds do I pay attention to and for how long?’ p. 172), we cannot even agree on what the object of appreciation is—a key requirement of Carlson’s model. Nonetheless, as Fisher details these supposed impediments, he dispels each one in turn. Thus, we are still left with the question: why are sonic aesthetics almost wholly neglected within philosophical landscape research, more than 15 years on from when Fisher raised this concern?

3. Sonic aesthetics in applied research

Applied landscape researchers have tended to reflect on the sonic aesthetics of landscapes through the lens of environmental psychology in which people’s sonic preferences are evaluated. For example, Carles, Bernáldez and de Lucio (1992) undertook an environmental perception survey to understand people’s responses to different landscape sounds when combined with different landscape images, concluding that ‘natural’ sounds ‘seem to be preferred’ (Carles et al., 1992, p. 55; see also Carles, Barrio, & de Lucio, 1999). Further research suggests that there is a preference for ‘natural’ over ‘human’ and ‘mechanical’ sounds in urban landscapes (Axelsson, Nilsson, Hellström, & Lundén, 2014; Lin & Lam, 2010; Yang & Kang, 2005), and that certain social factors of research participants, such as age, appear to influence the strength of preferences (Yu & Kang, 2010).

The relative ‘tranquillity’ of different landscape types has been a key area of investigation within the landscape preference literature. Herzog and Bosley (1992) undertook experiments to measure the degree of tranquillity afforded by 66 different ‘natural’ landscape states, where ‘tranquillity’ was taken to mean ‘how much ... you think this environment would encourage relaxation, peace of mind, escape from the strains of living’ (Herzog & Bosley, 1992, p. 117). Despite the clear sonic connotations of this

definition, participants were only asked to rate landscape tranquillity based on a series of static images of these landscapes (see also Herzog & Barnes, 1999).

As a way of rectifying the lack of sonic information, Pheasant, Fisher, Watts, Whitaker and Horoshenkov (2010) undertook a two-stage experiment using static photographs and video recordings (including sound) of a range of 'natural' and 'cultural' landscapes. The researchers sought to understand interactions between sound and vision, and how these may modify participants' perception of 'tranquillity'—here taken to mean 'a quiet peaceful place'. The results of this experiment led the authors to argue that sound and vision are both essential when accounting for 'tranquil' landscapes, in part answering Gifford and Fan Ng's (1982) earlier concern that environmental preference research has tended to rely upon single sensory, rather than multi-sensory, environmental representations (see also Hetherington, Daniel, & Brown, 1993).

A series of studies have also been conducted to investigate the impact of 'noise' on people's experiences of non-urban protected landscapes. For example, Benfield, Bell, Troup and Soderstrom (2010) used recordings of different anthropogenic and non-anthropogenic sounds to understand how they affect people's aesthetic ratings of static scenes from five US national parks, concluding that anthropogenic 'noise', including air and ground traffic but also human voices, 'decreased participant ratings of serenity', which chimes with the results of similar experiments (for example Kariel, 1990; Mace, Bell, & Loomis, 1999; Mace, Bell, Loomis, & Haas, 2003; Pilcher, Newman, & Manning, 2009; Tarrant, Haas, & Manfredo, 1995). Such results form the basis of prevailing discussions within applied landscape research over how to best manage unwanted sounds, particularly in national parks and wilderness areas (see for example Dumyahn & Pijanowski, 2011; Lynch, Joyce, & Fistrup, 2011; Mace, Bell, & Loomis, 2004; Miller, 2008; Pepper, Nasarella, & Kendall, 2003). Noise abatement policies are now common across all levels of governance, from supranational institutions to cities, and tools such as noise exposure maps are one prevalent means of gathering data on where anti-noise interventions should take place (Wissmann, 2014).

While a far less cohesive body of work than the environmental psychology literature described, soundscape planning has emerged as a multidisciplinary way of thinking through the interweaving of landscape, sound, and experience:

Noise management is the current paradigm for management of the outdoor acoustic environment, involving a large body of knowledge, practice, law, policing and control activities ... By contrast, soundscape planning focuses on acoustic environments that are regarded positively—that people prefer or consider as desirable environments. (Brown & Muhar, 2004, pp. 828–829)

In their work on soundscape planning, Matsinos et al. (2008) confront the framing of soundscape policy as always a question of noise management, arguing that rural landscapes are 'characterised by great spatial and temporal sound variability' (Matsinos et al., 2008, p. 946). The authors go on to outline an approach to the qualitative categorisation, and subsequent quantitative mapping of sound sources in the rural north of Corfu, with the aim of aiding landscape monitoring and management practices that better account for such variability.

Moving from a rural to an urban landscape, 'spatial and temporal sound variability' is understood to be at least a partially positive component of the '24 hour city' by Adams et al. (2006). Through a series of semi-structured interviews, the authors reveal that the assignment of positive or negative aesthetic value by residents to the sounds of Clerkenwell, central London, is highly context-specific. For example, the sounds of all-night parties and the 'hum' of traffic are either tolerated or aesthetically appreciated, when they are understood and interpreted within the social context of their production (see also Raimbault & Dubois, 2005). It is thus concluded that top-down noise abatement policies do not necessarily reflect the actual sonic aesthetic values held by a city's inhabitants, and so: '... the risk is that sound energy levels become the indicator of sustainable sounds and the implied goal becomes a silent city. Where then is the space for the 'buzz' that many people say they come to the city for?' (Adams et al., 2006, p. 2396).

The 'Positive Soundscape Project' also amply demonstrates an appreciation that there is potential discrepancy between the objectives of noise abatement policies—however well intentioned—and the

sonic aesthetic values of those who live in urbanised landscapes. As the name suggests, the project sought 'to move away from a focus on negative noise and to identify a means whereby the concept of positive soundscapes can effectively be incorporated into planning' (Davies et al., 2007). One strand of the project involved ascertaining people's 'favourite sounds' from inhabitants of Manchester and London so as to create a compendium of the types of sonic aesthetic qualities that people positively value within urbanised landscapes (Davies et al., 2009). Such a compendium could clearly influence soundscape policy by focusing on what people positively value, as well as what they do not, in the landscapes that they inhabit (see also Porteous & Mastin, 1985).

4. Extending and broadening sonic aesthetic landscape research

Though there are some notable exceptions aligned with soundscape planning, I have shown that there is a propensity within both the philosophical and applied landscape literature to limit discussions to what is pleasing (which is equated with 'peace' and 'tranquillity'), or what is displeasing (which is equated with 'noise'), mirroring the focus of visual landscape preference studies (Berleant & Carlson, 2007, p. 15).

As such, the literature nearly unanimously ascribes positive aesthetic value to the sounds of landscapes only when there is a relative *absence* of sounds, meaning that amplitude becomes the measure of sonic aesthetic value (though see Zhang & Kang, 2007), rather than the *presence* of other sonic qualities, such as timbre, pitch, texture, resonance, rarity or periodicity. This results in the identification of the majority of anthropogenic sound events in landscapes—especially those landscapes designated as 'natural'—as 'out of place' (Cresswell, 1996) and thus in need of management. This encompasses mechanical sounds and human communicative and bodily sounds, leading to experimental efforts to regulate the amplitude of human speech in parks, as well as the sounds of moving human bodies (Stack, Newman, Manning, & Fistrup, 2011; see also Benfield et al., 2010, p. 109).

While it is not my intention to undermine concerns over noise pollution that can have very real negative effects on human and non-human lives (Blickley & Patricelli, 2010), I think that it is crucial to highlight that making normative claims over the appropriateness of particular sonic geographies (see Matless, 2005), and perhaps most problematically biopolitical claims over sounding human bodies in certain landscapes, raises a series of questions yet to be addressed. For example, is relative silence always appropriate or desirable, or are other ways of sounding within landscapes—for instance with liveliness and high dynamic range (the difference between the quietest and loudest sound as perceived by a human listener in a given sonic environment)—also legitimate? Should we regulate sounds that we may merely find 'annoying', as some research suggests (see for example Pilcher et al., 2009)? Such a proposition appears to reinforce the bifurcation of human and non-human worlds, which rests upon the assumption that humans are negative agents within 'natural' landscapes.

More fundamentally, it seems vital to question the ongoing interpretation of the sounds of landscapes as merely a conduit to human pleasure or displeasure—a stance that is known as the hedonic theory of value (Brady, 2011, p. 96)—which pervades both landscape preference and soundscape planning research. Such a stance demonstrates a relative paucity of thought about how the sounds of landscapes may be experienced and valued. Clearly, many landscape sounds resist being easily categorised as either bringing about pleasure or displeasure, meaning that these sounds are under-represented (if not completely ignored), and so remain under-theorised within research.

Further, using a pleasure-displeasure framework as the basis for soundscape policy deliberations is troubling from an ecological perspective. If we are to take the conservation of soundscapes seriously (Dumyahn & Pijanowski, 2011), then we need to be cautious of managing landscapes with human pleasure as the ultimate goal. Just as landscape theorists have challenged the notion that what brings visual aesthetic pleasure correlates with healthily functioning landscapes (Gobster, 1999), we must also ask whether sonic aesthetic pleasure—as currently conceived within the literature—aligns with landscape conservation and sustainability objectives. If 'tranquillity' and 'peacefulness' are continuously reaffirmed as the ultimate objective of soundscape policy both within 'natural' and 'cultural' landscape settings, what space is there for those natural sounds that do not engender pleasure—the 'unpleasant,

raucous, cackling cry of magpies', the 'ugly screech of a jay'; the 'horrible scream of foxes in heat' (Cox, 2015, pp. 88–89)—within such policies? A rejoinder to this may be that all of non-human nature is inherently beautiful—a position within philosophical environmental aesthetics called 'positive aesthetics'—and so what is presumed to be ugly or unpleasurable is in fact beautiful, but this unconvincingly sidesteps the very real existence of negative aesthetic qualities in the natural world (see Brady, 2011).

I now turn to outline some ways in which sonic aesthetics can be more broadly accounted for, and embedded within, theoretical and applied landscape research, beyond the current focus on aesthetic pleasure and displeasure. I want to add the proviso that what follows is tentative and exploratory, and that further reflections could have been offered were it not for a lack of space.

4.1. Listening to the sounds of landscapes

When it comes to making sense of the world, humans are highly adept at doing so through vision (Rodaway, 1994, p. 115). Visual perception dominates over other modes of sensory perception (Posner, Nissen, & Klein, 1976)—certainly in humans with no sensory impairments. The reasons underlying this dominance are debated amongst neuroscientists and psychologists (see for example Spence, Parise, & Chen, 2012), but for the present discussion I am interested in how this dominance has—alongside a general Western cultural prevalence for producing visual representations of landscapes (not only within the arts, including landscape design and architecture, but also landscape research itself (see Lange, 2011))—shaped how landscape perception and aesthetic appreciation are approached by landscape scholars.

In acknowledging such dominance, I am not bemoaning 'ocularcentrism' (Macpherson, 2006); nor am I implicitly arguing for attention to the sonic at the expense of other modes of landscape perception as some sort of corrective. Rather, if we are to take multi-sensory landscape aesthetics seriously, then it appears necessary to critically reflect on current approaches to landscape research that have been constructed with vision and visuality in mind. In the sonic domain, to better account for the multiplicity of landscape sounds and soundscapes, I want to suggest that a 'sensitive ear' to the world is necessary.

A sensitive ear is a listening disposition that is attentive to the diversity of landscape sounds, and the multitudinous ways in which we may aesthetically experience and value them. Rather than beginning (and indeed ending) with trying to discover which sounds within a given landscape arouse human 'pleasure' or 'displeasure', such a disposition is keenly open to the reception of—and our responses to—sounds that are not easily accommodated within such a hedonic theory of aesthetic values.

It is useful at this juncture to note that 'listening' and 'hearing' are distinct, as Handel (1989) explains: 'The physical pressure wave enables perception but does not force it. Listening is active; it allows age, experience, expectation, and expertise to influence perception' (1989, p. 3). Even taking into account the influences of 'age, experience, expectation, and expertise', listening has the benefit of being less discriminatory of the sounds of landscapes than passive hearing, which tends to only draw our attention to a particular sound or group of sounds when there is a change in pitch, volume or so on. Such listening is not necessarily an instinctive practice; rather, it should be regarded as a skill that can be developed through listening exercises (Schafer, 1969).

As a component of a sensitive ear, attentive listening can complicate attempts to locate landscape sounds along a pleasure-displeasure continuum, as it reveals a range of sounds whose aesthetic qualities are more ambiguous than this can hope to contain, including dull, mundane, melancholic and sublime qualities. In its less discriminatory stance toward the diversity of landscape sounds, a sensitive ear is also receptive to those sounds that may be unfamiliar (say, because they are rare within a given landscape), or so overly familiar that they do not register as pleasurable or unpleasurable, but are no less important to the constitution of a sonic landscape character.

My suggestion about the usefulness of a 'sensitive ear' may strike some as banal or condescending, but this is not my intention. While I am cautious of over-generalising any assumed 'lack' of listening by landscape researchers, and receptive to the argument that listening is not inherently positive given the various political and economic power relations between listener and listened (Gallagher, 2013),

based on the sounds that have been documented and discussed within the landscape literature, it would appear that attentive listening is not entrenched to the extent that it is within music and sonic arts scholarship (see for example Carlyle & Lane, 2013; Chion, 1994; Oliveros, 2005).

If a sensitive ear is the first step towards better accounting for the diversity of sounds as they actually exist in landscapes (rather than only attending to those that precipitate pleasure or displeasure), and the various ways in which we may aesthetically experience and value them, then the second step is the development of tools for better documenting and communicating what a sensitive ear to the world can reveal.

4.2. Documenting and communicating sonic aesthetics of landscapes

This day of rain has its own temptation, and the steady downpour gives my brief detour a special quality. The sound on the roof of my car is an auditory pointillism, punctuated by the regular beat of the windshield wipers and supported by the gentle undertone of the engine. They become a thickly textured accompaniment to the sights, movements, and sensations of my drive. (Berleant, 1992, p. 41)

Sensitive to the ways in which aesthetic qualities can be relayed to a reading audience, Berleant (1992) outlines 'descriptive aesthetics' as a convincing mode of doing so: 'descriptive aesthetics combines acute observation with compelling language to encourage the reader toward vivid aesthetic encounters' (Berleant, 1992, p. 26). While Berleant is keen to point out that descriptive aesthetics can go 'beyond a communicative function' (p. 26), this form of writing has become commonplace within the philosophical environmental aesthetics literature, primarily as a means to communicate the particularities of a given landscape, taking note of both formal and expressive aesthetic qualities to do so (see Budd, 2002, pp. 112–118).

Among the examples of rich textual aesthetic accounts of landscapes, Allen Carlson's visual descriptions of modern agricultural landscapes (Carlson, 2000, pp. 185–189), Stan Godlovitch's depiction of the deliberate breaking up of a frozen stream in Alberta (Godlovitch, 1994) and Berleant's (1992) own multi-sensorial account of driving through a Connecticut landscape (excerpted above), are particularly evocative. Berleant's work aside, however, sonic descriptive aesthetics are negligible. Instead, in the literature I have outlined, communication of the sounds of landscapes amounts to cataloguing sound sources and attaching an aesthetic value judgement—normally an adjective such as 'beautiful', 'serene', 'noisy' or 'annoying'. This means that the specific qualities of particular landscape sounds previously mentioned (timbre, pitch and so on) are neglected.

It may be fruitful, then, for landscape scholars to look to other forms of landscape writing to enlarge and enliven their own descriptive work. Nature poems, for instance, 'frequently contain descriptions of sounds' (Fisher, 1999, pp. 39–40), and contemporary nature writing by the likes of Kathleen Jamie and Robert Macfarlane, offers imaginative ways of writing about landscape aesthetics beyond vision. Further, there have been some experimental forms of writing about sound, such as Daniela Cascella's interrogations of the triangulated relationship between listening, reading and writing in—and about—landscapes (Cascella, 2012), as well as Augoyard and Torgue's (2008) approach to formalising different types of sonic qualities that spans music, architecture and landscape. What these texts do is provide landscape researchers with an extended vocabulary that not only captures a range of sonic aesthetic qualities and values beyond the usual list of adjectives, but also (especially in Augoyard & Torgue, 2008) distinguish between, and help to describe, different types of properties of sounds, how they are shaped by different spaces (as sounds do not exist in a spatial vacuum) and how they might be experienced by a listener.

When writing about the sounds of landscapes, it seems necessary to assess the usefulness of prevailing aesthetic classifications. For instance, in their assessment of the role of the category 'natural beauty' in landscape legislation, Selman and Swanwick (2010) posit that a 'modern understanding of natural beauty' includes senses other than the visual (Selman & Swanwick, 2010, p. 22), meaning that it has the potential to be enlarged beyond visual aesthetics. Similarly, the 'picturesque' has been developed to interpret developments in late eighteenth- and early nineteenth-century music that

parallel picturesque gardening and landscaping (Richards, 2001). Not all existing aesthetic categories, however, may be so readily enlarged, and so it may well be necessary to create new categories or bring to the fore known but contemporarily neglected ones, as has notably happened in visual aesthetic theory (see for instance Brady, 2013; and Ngai, 2012).

Aside from these rather modest textual-linguistic interventions, I want to go further by proposing field recording—the practice of audio recording outside of the controlled environment of a recording studio—as a legitimate mode of documenting and communicating sonic aesthetic qualities to supplement descriptive textual articulation. Landscape aestheticians are adept at providing photographic and diagrammatic representations in their work (see for instance Porteous, 1996; and Sadler & Carlson, 1982), as a means of documenting visual aesthetic qualities, but there are only a few instances of researchers turning to audio recording practices as a means of landscape documentation, and fewer still that have presented recordings within research outputs (two exceptions being Cusack, 2001, and Prior, 2012).

It is important to highlight that this proposition is not an argument for 'objectivity' compared to any assumed 'subjectivity' of textual documentation; such an assertion must be guarded against. Indeed, the act of field recording, from the initial idea of what to record (and what not to), to the placement of microphones, through to the editing and replay of recordings, is not an objective tool of documentation (see Altman, 1992, p. 40). What it is, however, is an argument in favour of better capturing the experiential richness of the sounds of landscapes—a richness that is difficult to attain through textual description alone.

Audio recordings can act as a representation of the sonic qualities of a particular landscape, while also bringing about different affective, emotional (see Gallagher, 2015) and aesthetic responses for different listeners. Importantly, while a recordist may have their own ideas about the types of responses that a landscape recording may lead to, the latter appears less prescriptive than a written textual description. If I state that a forested landscape is alive with the beautiful, intricate sounds of birds during the spring dawn chorus, or is unnerving during the winter months when passing winds creak leafless branches, I am making declarative statements that afford little space within which a reader can form their own appraisal of the aesthetic qualities of this landscape. An audio recording of the landscape in question, by contrast, would provide such space.

Certain recording techniques allow us to aestheticise sounds that 'are hidden, fleeting, beyond or at the periphery of everyday awareness' (Gallagher and Prior, 2014, p. 271). A listener to a field recording can control the volume during playback; turning up the volume 'one may become aware of a distant rumble of traffic, the flitting of insects, [or] wind whistling around objects' (Gallagher and Prior, 2014, p. 271). Pushing this further, we may deploy a range of different microphones and transducers to reveal and aestheticise those sounds that may not be immediately available to the naked human ear, including hydrophones (underwater microphones), contact microphones (which transduce vibrations moving through solid objects) and geophones (which are sensitive to sub-surface ground movements). As such, audio recording technologies can enable the extension of a sensitive ear to the world.

Audio recordings may also allow us to express what is otherwise challenging to articulate. The work of Cheryl Foster (Foster, 1998) on what she terms the 'narrative' and 'ambient' dimensions of environmental aesthetic valuing, is pertinent to what I am forwarding here. In the former, which Foster argues has come to dominate attempts to articulate environmental aesthetic experiences, certain frameworks—she mentions mythology, social history, but particularly the natural sciences—are used as a means to narrate aesthetic experiences and values, so that they can be communicated, adjudicated, interpreted and so on. Foster (1998, p. 131) states: 'we filter the perceptual properties of nature's surface through a frame of reference that functions as narrative in character, one that contextualises the objects before us'. By contrast, the ambient 'does not rely *in practice* upon any standards, frameworks, or narratives external to the experiencing individual ...' Indeed, 'conceptual frameworks recede() and we encounter nature as an enveloping other' (p. 133; emphasis in original):

The textures of earth as we move over them, the sounds of the winds and the wildlife and trees, the moistness or dryness of the air, the nascent colors or seasonal mutations—all can melt into a synthesized backdrop for ambient contemplation of both the backdrop itself and the sensuous way we relate to it. (Foster, 1998, p. 134)

Within Foster's formulation of the ambient, there are clear echoes of Berleant's aesthetics of landscape engagement (Berleant, 1997), and Steven Bourassa's 'sensory aesthetics', in which experiences occur 'without regard to any meanings or associations they may arouse' (Bourassa, 1991, p. 22). Because of the particularities of this dimension of aesthetic experience, a communicative dilemma arises as: 'the depth experienced in the ambient dimension of aesthetic value resists straightforward prose' (Foster, 1998, p. 135). Though 'we *require* words' (p. 135; emphasis in original), the difficulty of articulating the ambient dimension through verbal-textual documentation, requires us to 'adjust our methods of accounting for it accordingly' (p. 136). Foster posits art as one strategy, while I would like to propose field recording as a promising mode of landscape aesthetic articulation, as through field recording there is the possibility of at least partially documenting sonic components of the ambient dimensions of aesthetic experience, in addition to narrative dimensions.¹

Indeed, returning to Berleant's description excerpted above, which I think is an evocative way of attending to the ambient, all sorts of questions are raised about this experience that would be well served by the addition of an audio recording of the event. How exactly, for instance, does the 'gentle undertone of the engine' support the sound of raindrops on the car roof? How does this rain sound compare to the sounds of rain I have experienced? What sounds are deemed extraneous to this recounting, and are thus edited out? Again, while this is not an argument in favour of 'objective' documentation, a field recording may improve a reading/listening audience's ability to critically engage with this landscape experience, and so in turn agree with, modify or refute, an aesthetic judgement of landscape—critically here including those judgements pertaining to its ambient dimensions—in a way that is not easily possible with textual descriptive aesthetics; something that Berleant readily acknowledges (Berleant, 1992, p. 22).

5. Conclusion

In this paper, I have critically reviewed the extant theoretical and applied literature that has addressed the aesthetics of landscapes from a sonic perspective. I have shown that the overwhelming majority of this work has been executed with policy-relevance in mind; landscape sounds have nearly unanimously been accounted for so as to make landscape design recommendations, with the intention of either controlling unwanted 'noise' or preserving positively valued soundscapes, which so often equates to the preservation of a relative *absence* of sounds.

I then demonstrated how this approach renders sounds and soundscapes in a markedly instrumental manner, in that it focuses in on human pleasure and displeasure. While there are valid human health reasons for doing so, I argued that this provides a limited point of entry through which to consider the full scope of human and non-human sounds in landscapes, and also the variegated ways in which we aesthetically experience and respond to these sounds. Self-evidently, this approach can say little (if anything) about landscape sounds that fall within aesthetically ambiguous categories, meaning that sounds that do not clearly and directly engender aesthetic pleasure or displeasure are not addressed in the literature. This approach may also, perhaps unwittingly, work against landscape conservation and sustainability objectives. Thus, it would seem judicious to be critically aware of the consequences—however unintentional—of establishing pleasure as the pinnacle aesthetic value of soundscape planning and design.

As a way of extending and broadening sonic aesthetic landscape research beyond a pleasure-displeasure approach, I then considered both attentive listening and different modes of sonic communication. I showed how these are appropriate to the particular qualities of sounds, and are thus well suited to the tasks of accounting for and disseminating the diversity of sounds present within landscapes. While it is important to be sensitively attuned to the demands of sonic aesthetics, I outlined these potential future directions not as a way of demarcating sound as (necessarily) an isolated area for

future landscape research. Instead, I see these approaches as a means to enlarge the scope of current sonic environmental aesthetics, in such a way that does not denigrate—but rather complements—other modes of sensing and experiencing landscapes.

Note

1. While the act of producing a sonic representation through field recording could be construed as the creation of a type of 'narrative', this differs substantially to a verbal-textual narrative, in that such recordings do not necessarily rely upon an external frame of reference, such as social history or the natural sciences.

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